

Luminaire

Code 05-5964-DL-M1V2
Name DUNA

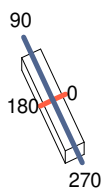
Measurem.

Code 05-5964-DL-M1V2
Name DUNA

Luminaire Flux	2339 lm	Luminaire Power	32.2 W	Efficacy	72.545 lm/W	Efficiency	100.00%
Source Flux	2339 lm	Maximum value	369.92 cd/klm	Position	C=180.00 G=170.00	CG	Asymmetrical
Rectangular Luminaire		Length	350 mm	Width	71 mm	Height	129 mm
Rectangular Luminous Area		Length	280 mm	Width	35 mm	Height	75 mm
Horizontal Luminous Area		0.009800 m2		Emitting area on Plane 180°		0.021000 m2	
Emitting area on Plane 0°		0.021000 m2		Emitting area on Plane 270°		0.002625 m2	
Emitting area on Plane 90°		0.002625 m2		Glare area at 76°		0.022747 m2	
Coordinate system		CG		Symmetry Type		Asymmetrical	
Date		02-02-2017		Maximum Gamma Angle		180	
Measurement Distance		0.00		Measurement Flux		2339 lm	
Operator		Asselum T2		Rated Voltage			
Temperature				Rated Current			
Humidity				Photocell			
Notes							

Luminaire Sources						
Line	Code	Name	Flux [lm]	Pow. [W]	Q.ty	
	LED	LED	2338.84	32.24	1	
C.I.E.	53 77 90 18 100	D DIN 5040	D43			
F UTE	0.18 D + 0.82 T	B NBN	BZ 3 / 0.6 / BZ 4 / 2 / BZ 5			

350mm x 71mm



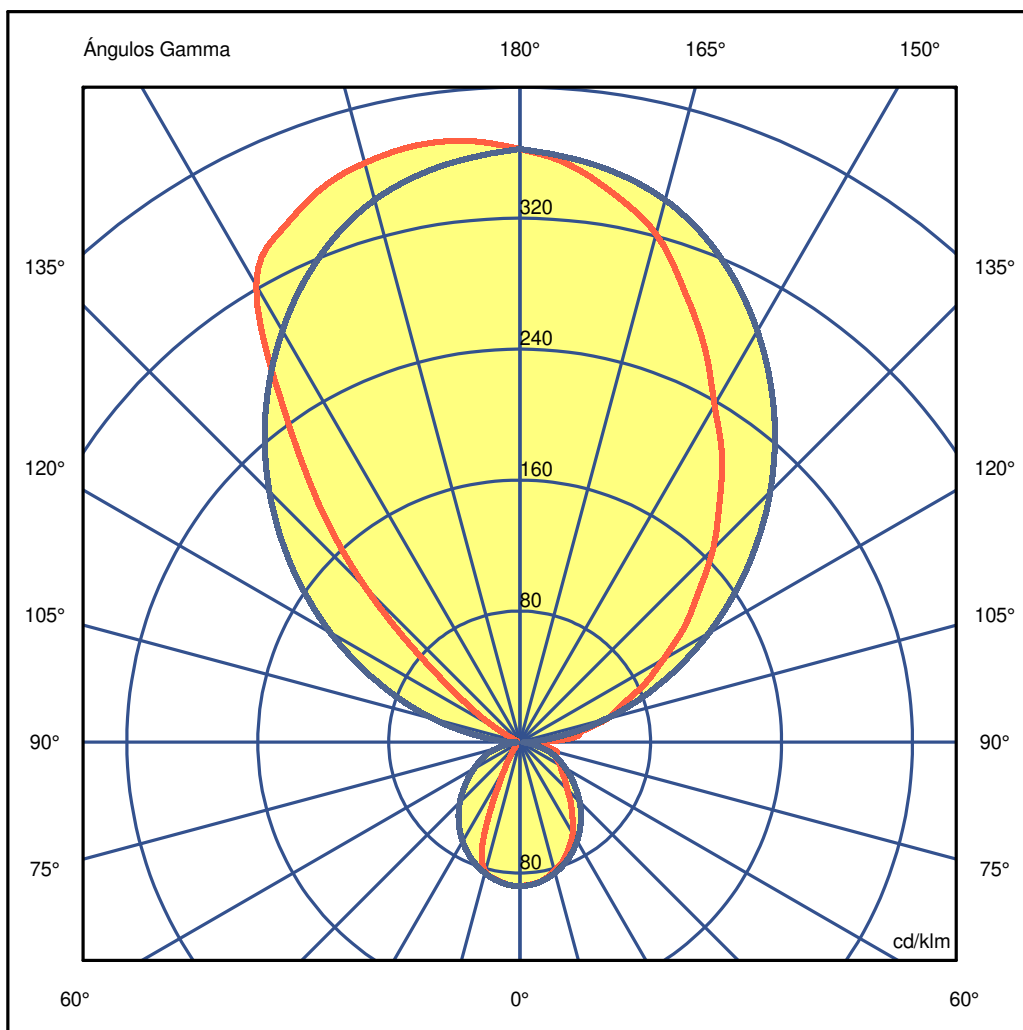
Semiplanos C

180.0 — 0.0
270.0 — 90.0

ULOR 81.97 %

DLOR 18.03 %

RN 81.97 %



Luminaire

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Measur.

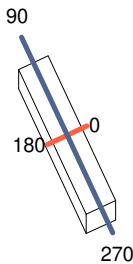
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Source Flux		2339 lm		Maximum value		369.92 cd/klm		Position		C=180.00 G=170.00		CG Asymmetrical			
Luminous Intensity Table cd/klm Table 1/1															
	C 0.00	C 15.00	C 30.00	C 45.00	C 60.00	C 75.00	C 90.00	C 105.00	C 120.00	C 135.00	C 150.00	C 165.00			
G 0.0	87.91	87.91	87.91	87.91	87.91	87.91	87.91	87.91	87.91	87.91	87.91	87.91	87.91	87.91	87.91
G 5.0	87.20	87.20	87.21	87.23	87.24	87.26	87.28	87.29	87.31	87.31	87.31	87.29	87.28	87.28	87.28
G 10.0	85.22	85.27	85.37	85.45	85.53	85.56	85.51	85.44	85.33	85.18	85.09	85.13	85.13	85.13	85.13
G 15.0	81.36	81.53	81.99	82.43	82.73	82.91	82.78	82.51	82.26	82.04	81.92	81.92	81.72	81.72	81.72
G 20.0	77.27	77.43	77.88	78.59	78.99	79.37	79.22	78.80	78.40	76.45	71.68	67.73	67.73	67.73	67.73
G 25.0	71.09	71.66	72.73	73.80	74.57	75.02	74.92	74.47	73.11	63.49	48.04	38.09	38.09	38.09	38.09
G 30.0	64.62	65.34	66.86	68.16	69.35	70.00	69.92	69.50	64.77	43.20	23.18	18.61	18.61	18.61	18.61
G 35.0	55.94	57.52	60.02	61.98	63.48	64.40	64.31	63.68	52.05	23.20	13.55	10.66	10.66	10.66	10.66
G 40.0	48.42	49.76	52.25	55.38	57.24	58.33	58.19	56.96	35.80	13.11	8.04	5.46	5.46	5.46	5.46
G 45.0	41.01	42.70	45.09	48.39	50.83	51.92	51.72	49.28	20.95	8.39	4.09	3.32	3.32	3.32	3.32
G 50.0	35.96	36.94	38.83	41.64	44.58	45.37	45.07	40.25	12.06	4.74	3.18	3.02	3.02	3.02	3.02
G 55.0	31.63	32.56	33.40	35.99	38.55	39.00	38.52	29.94	7.40	3.33	3.06	2.85	2.85	2.85	2.85
G 60.0	28.53	28.91	29.41	31.11	32.84	33.08	32.39	19.86	4.49	3.22	3.02	2.84	2.84	2.84	2.84
G 65.0	25.34	25.93	26.07	26.97	27.53	27.70	26.80	12.27	3.25	3.14	3.07	2.90	2.90	2.90	2.90
G 70.0	22.66	22.62	23.09	22.59	22.70	22.66	21.16	7.73	3.07	3.15	3.15	3.02	3.02	3.02	3.02
G 75.0	23.65	22.37	20.27	18.70	19.06	17.74	14.68	5.06	3.19	3.15	3.24	3.23	3.23	3.23	3.23
G 80.0	17.92	22.99	19.65	18.72	17.74	13.14	7.35	2.93	3.62	3.19	3.30	3.36	3.36	3.36	3.36
G 85.0	13.80	21.43	26.53	24.19	19.10	10.80	2.34	2.11	3.64	3.17	3.31	3.42	3.42	3.42	3.42
G 90.0	11.98	34.20	36.26	30.38	22.50	13.13	3.57	4.18	3.62	3.15	3.29	3.47	3.47	3.47	3.47
G 95.0	33.40	37.63	36.70	33.35	27.70	21.91	13.88	11.10	4.90	3.07	3.28	3.52	3.52	3.52	3.52
G100.0	38.29	41.45	39.50	37.95	36.52	36.37	31.67	25.16	6.46	3.21	3.22	3.41	3.41	3.41	3.41
G105.0	55.23	52.66	50.52	49.84	51.19	55.10	54.23	48.20	13.59	5.40	3.14	3.07	3.07	3.07	3.07
G110.0	66.27	64.25	65.66	67.69	71.65	76.75	79.22	79.42	37.80	12.26	3.32	2.90	2.90	2.90	2.90
G115.0	84.26	80.96	84.10	88.52	95.06	100.37	105.73	113.47	72.94	29.86	12.40	5.65	5.65	5.65	5.65
G120.0	101.16	100.75	103.60	110.11	118.29	125.25	133.25	145.72	116.34	65.50	34.48	21.67	21.67	21.67	21.67
G125.0	122.70	120.32	125.18	131.63	140.86	151.12	161.23	174.74	164.08	114.01	71.06	50.44	50.44	50.44	50.44
G130.0	142.49	142.18	146.73	154.73	164.58	177.89	189.12	202.25	207.65	163.52	124.88	97.27	97.27	97.27	97.27
G135.0	167.07	164.92	169.96	177.74	189.58	204.83	216.38	229.17	240.95	217.53	180.17	154.27	154.27	154.27	154.27
G140.0	189.54	187.67	193.86	202.53	215.36	230.95	242.50	255.18	266.86	268.19	236.85	213.11	213.11	213.11	213.11
G145.0	215.17	212.58	217.70	228.12	242.81	256.11	267.19	279.58	290.37	300.51	296.22	267.54	267.54	267.54	267.54
G150.0	237.93	235.98	243.28	253.82	269.44	280.34	290.18	301.89	312.19	320.94	326.61	321.68	321.68	321.68	321.68
G155.0	266.71	264.57	270.51	281.29	292.79	302.74	311.09	321.48	330.60	338.03	342.53	343.41	343.41	343.41	343.41
G160.0	293.70	292.74	297.77	305.71	313.77	321.96	329.00	337.47	345.02	350.94	354.50	356.46	356.46	356.46	356.46
G165.0	321.42	319.38	321.13	325.52	331.31	337.22	342.90	349.14	354.84	359.18	362.04	364.06	364.06	364.06	364.06
G170.0	338.94	337.80	338.76	341.35	344.76	348.36	352.18	356.30	360.23	363.50	366.03	368.04	368.04	368.04	368.04
G175.0	353.83	353.05	353.05	353.69	354.80	356.29	358.10	360.14	362.25	364.23	365.99	367.47	367.47	367.47	367.47
G180.0	362.32	362.32	362.32	362.32	362.32	362.32	362.32	362.32	362.32	362.32	362.32	362.32	362.32	362.32	362.32
	C 180.00	C 195.00	C 210.00	C 225.00	C 240.00	C 255.00	C 270.00	C 285.00	C 300.00	C 315.00	C 330.00	C 345.00			
G 0.0	87.91	87.91	87.91	87.91	87.91	87.91	87.91	87.91	87.91	87.91	87.91	87.91	87.91	87.91	87.91
G 5.0	87.28	87.28	87.29	87.31	87.31	87.29	87.28	87.26	87.24	87.23	87.21	87.20	87.20	87.20	87.20
G 10.0	85.17	85.13	85.09	85.18	85.33	85.44	85.51	85.56	85.53	85.45	85.37	85.27	85.27	85.27	85.27
G 15.0	81.69	81.72	81.92	82.04	82.26	82.51	82.78	82.91	82.73	82.43	81.99	81.53	81.53	81.53	81.53
G 20.0	66.42	67.73	71.68	76.45	78.40	78.80	79.22	79.37	78.99	78.59	77.88	77.43	77.43	77.43	77.43
G 25.0	35.76	38.09	48.04	63.49	73.11	74.47	74.92	75.02	74.57	73.80	72.73	71.66	71.66	71.66	71.66
G 30.0	17.74	18.61	23.18	43.20	64.77	69.50	69.92	70.00	69.35	68.16	66.86	65.34	65.34	65.34	65.34
G 35.0	9.88	10.66	13.55	23.20	52.05	63.68	64.31	64.40	63.48	61.98	60.02	57.52	57.52	57.52	57.52
G 40.0	5.55	5.46	8.04	13.11	35.80	56.96	58.19	58.33	57.24	55.38	52.25	49.76	49.76	49.76	49.76
G 45.0	3.20	3.32	4.09	8.39	20.95	49.28	51.72	51.92	50.83	48.39	45.09	42.70	42.70	42.70	42.70
G 50.0	2.96	3.02	3.18	4.74	12.06	40.25	45.07	45.37	44.58	41.64	38.83	36.94	36.94	36.94	36.94
G 55.0	2.75	2.85	3.06	3.33	7.40	29.94	38.52	39.00	38.55	35.99	33.40	32.56	32.56	32.56	32.56
G 60.0	2.71	2.84	3.02	3.22	4.49	19.86	32.39	33.08	32.84	31.11	29.41	28.91	28.91	28.91	28.91
G 65.0	2.71	2.90	3.07	3.14	3.25	12.27	26.80	27.70	27.53	26.97	26.07	25.93	25.93	25.93	25.93
G 70.0	2.76	3.02	3.15	3.15	3.07	7.73	21.16	22.66	22.70	22.59	23.09	22.62	22.62	22.62	22.62
G 75.0	2.88	3.23	3.24	3.15	3.19	5.06	14.68	17.74	19.06	18.70	20.27	22.37	22.37	22.37	22.37
G 80.0	2.84	3.36	3.30	3.19	3.62	2.93	7.35	13.14	17.74	18.72	19.65	22.99	22.99	22.99	22.99
G 85.0	2.43	3.42	3.31	3.17	3.64	2.11	2.34	10.80	19.10	24.19	26.53	21.43	21.43	21.43	21.43
G 90.0	2.21	3.47	3.29	3.15	3.62	4.18	3.57	13.13	22.50	30.38	36.26	34.20	34.20	34.20	34.20
G 95.0	2.53	3.52	3.28	3.07	4.90	11.10	13.88	21.91	27.70	33.35	36.70	37.63	37.63	37.63	37.63
G100.0	2.80	3.41	3.22	3.21	6.46	25.16	31.67	36.37	36.52	37.95	39.50	41.45	41.45	41.45	41.45
G105.0	2.66	3.07	3.14	5.40	13.59	48.20	54.23	55.10	51.19	49.84	50.52	52.66	52.66	52.66	52.66
G110.0	2.46	2.90	3.32	12.26	37.80	79.42	79.22	76.75	71.65	67.69	65.66	64.25	64.25	64.25	64.25
G115.0	2.69	5.65	12.40	29.86	72.94	113.47	105.73	100.37	95.06	88.52	84.10	80.96	80.96	80.96	80.96
G120.0	14.99	21.67	34.48	65.50	116.34	145.72	133.25	125.25	118.29	110.11	103.60	100.75	100.75	100.75	100.75
G125.0	37.20	50.44	71.06	114.01	164.08	174.74	161.23	151.12	140.86	131.63	125.18	120.32	120.32	120.32	120.32
G130.0	71.90	97.27	124.88	163.52	207.65	202.25	189.12	177.89	164.58	154.73	146.73	142.18	142.18	142.18	142.18
G135.0	132.66	154.27	180.17	217.53	240.95	229.17	216.38	204.83	189.58	177.74	169.96	164.92	164.92	164.92	164.92
G140.0	192.34	213.11	236.85	268.19	266.86	255.18	242.50	230.95	215.36	202.53	193.86	187.67	187.67	187.67	187.67
G145.0	254.02	267.54	296.22	300.51	290.37	279.58	267.19	256.11	242.81	228.12	217.70	212.58	212.58	212.58	212.58
G150.0	322.3														

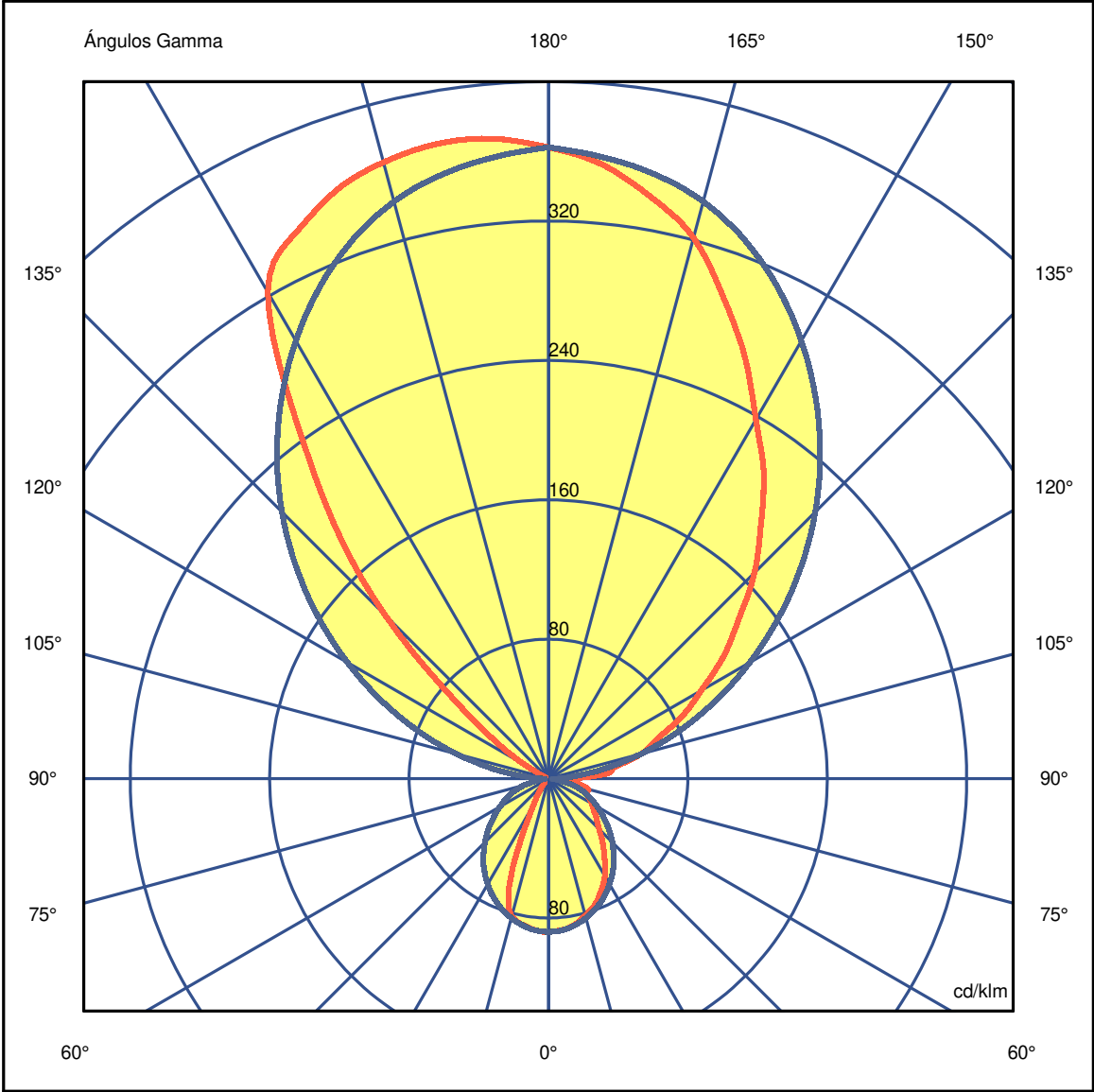
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350mm x 71mm



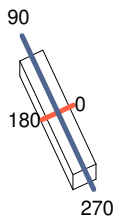
Semiplanos C



Luminaire
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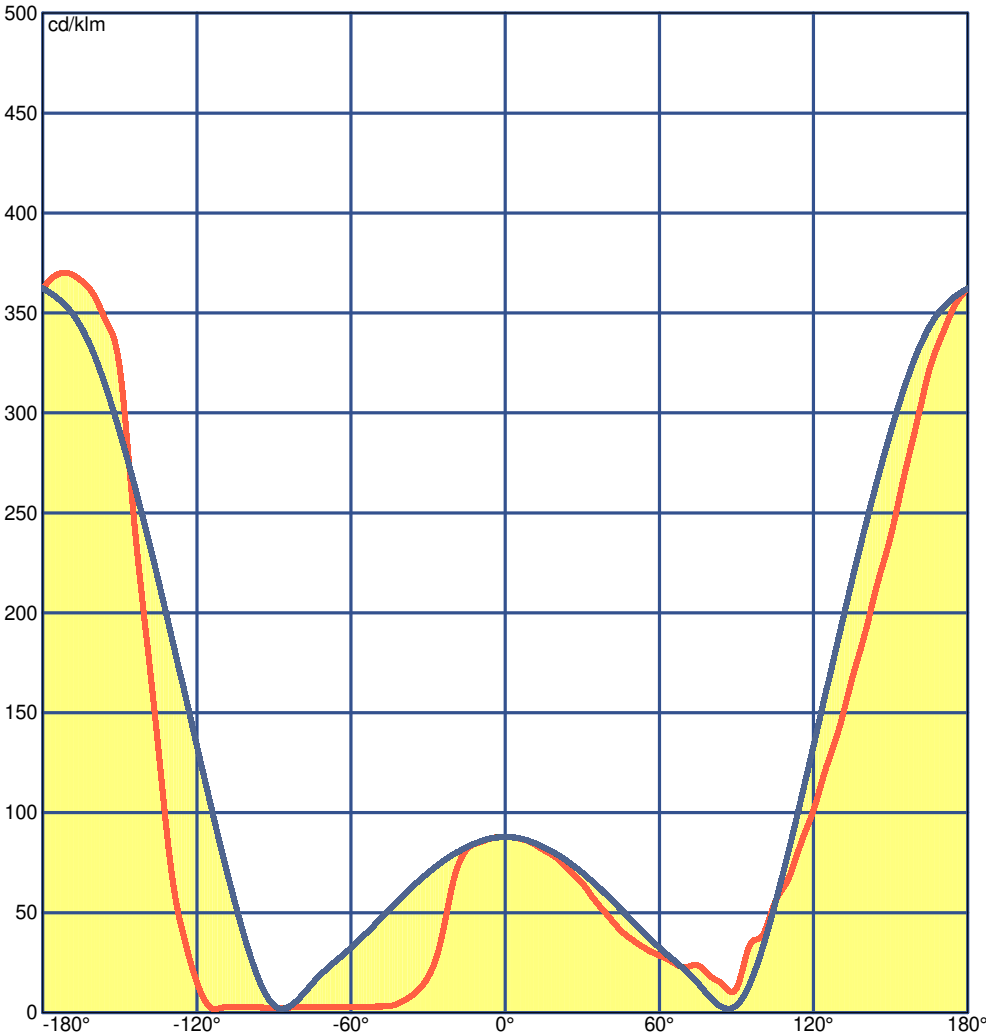
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350mm x 71mm



Semiplanos C

180.0 ————— 0.0
270.0 ————— 90.0



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UGR
S = 0.250

Reflectancies										
Ceiling/Cavity	0.7	0.7	0.5	0.5	0.3	0.7	0.7	0.5	0.5	0.3
Walls	0.5	0.3	0.5	0.3	0.3	0.5	0.3	0.5	0.3	0.3
Working Plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Room Dimensions	Lateral View					Viewed Endwise				
x=2H y=2H	< 0	< 0	< 0	< 0	< 0	11.9	12.5	13.0	13.6	15.2
x=2H y=3H	< 0	< 0	< 0	< 0	< 0	13.1	13.7	14.3	14.8	16.4
x=2H y=4H	< 0	< 0	< 0	< 0	0.6	13.6	14.1	14.8	15.3	16.9
x=2H y=6H	< 0	< 0	< 0	< 0	1.6	13.9	14.4	15.1	15.5	17.2
x=2H y=8H	< 0	< 0	< 0	0.4	2.0	13.9	14.4	15.1	15.5	17.2
x=2H y=12H	< 0	< 0	0.3	0.7	2.4	13.9	14.3	15.1	15.5	17.1
x=4H y=2H	< 0	< 0	< 0	< 0	< 0	11.7	12.2	12.9	13.4	15.0
x=4H y=3H	< 0	< 0	< 0	< 0	0.8	13.1	13.5	14.3	14.7	16.3
x=4H y=4H	< 0	< 0	< 0	0.2	1.8	13.7	14.1	14.9	15.2	16.9
x=4H y=6H	< 0	0.1	1.0	1.3	3.0	14.1	14.4	15.3	15.6	17.3
x=4H y=8H	0.3	0.6	1.6	1.8	3.5	14.2	14.5	15.4	15.7	17.4
x=4H y=12H	0.8	1.1	2.0	2.3	4.0	14.2	14.5	15.4	15.6	17.4
x=8H y=4H	< 0	< 0	0.4	0.6	2.3	13.6	13.9	14.8	15.1	16.8
x=8H y=6H	0.6	0.8	1.8	2.0	3.7	14.2	14.4	15.4	15.7	17.4
x=8H y=8H	1.3	1.5	2.6	2.7	4.5	14.4	14.6	15.6	15.8	17.5
x=8H y=12H	2.0	2.2	3.3	3.4	5.2	14.6	14.7	15.8	16.0	17.7
x=12H y=4H	< 0	< 0	0.5	0.8	2.5	13.6	13.8	14.8	15.0	16.8
x=12H y=6H	0.8	1.0	2.0	2.2	4.0	14.2	14.4	15.4	15.6	17.4
x=12H y=8H	1.6	1.8	2.9	3.0	4.8	14.5	14.7	15.8	15.9	17.6

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Measurment

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Flujo Total=2338.84 Flujo Luminaria=2338.84

RI	0.60	0.80	1.00	1.25	1.50	2.00	2.50	3.00	4.00	5.00	10.00	20.00
DRR	0.36	0.43	0.49	0.55	0.60	0.68	0.72	0.76	0.81	0.83	0.90	0.94
RC	4	4	4	5	5	5	5	5	6	6	6	6

Flujo Zonal por 1000 Lúmenes

Y°	10	20	30	40	50	60	70	80	90	100	110	120	130	140	150	160	170	180
ZF(Y)	8	31	62	91	117	138	155	168	180	200	238	308	419	567	727	869	966	1000

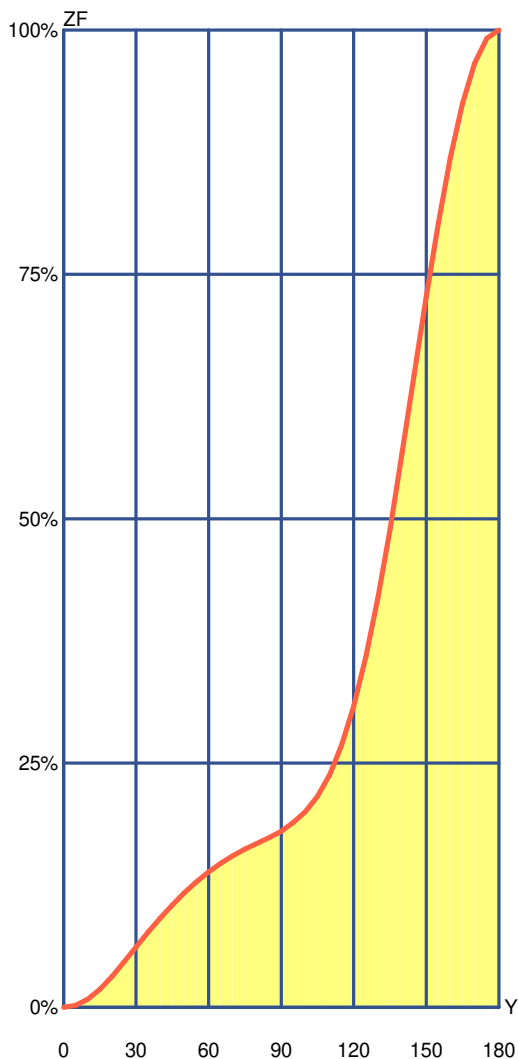
Códigos de Flujo C.I.E.

53 77 90 18 100

C.I.E.
D DIN 5040
F UTE
B NBN
RN
BLF

4/4/4/5/5/5/5/6/6/6
D43
0.18 D + 0.82 T
BZ 3 / 0.6 / BZ 4 / 2 / BZ 5
81.97247 %
1.0

LOR 100.00000 %
ULOR 81.97247 %
DLOR 18.02753 %
UFF 81.97247 %
DFF 18.02753 %
FFR 454.70703 %



Flujo Zonal				
Gamma °	Flujo	Suma lm	Flujo [%]	Suma [%]
0°	0.00	0.00	0.00%	0.00 %
5°	2.09	2.09	0.21 %	0.21 %
10°	6.17	8.27	0.62 %	0.83 %
15°	9.94	18.21	0.99 %	1.82 %
20°	13.07	31.27	1.31 %	3.13 %
25°	14.94	46.22	1.49 %	4.62 %
30°	15.43	61.65	1.54 %	6.16 %
35°	15.19	76.84	1.52 %	7.68 %
40°	14.53	91.37	1.45 %	9.14 %
45°	13.52	104.89	1.35 %	10.49 %
50°	12.36	117.25	1.24 %	11.73 %
55°	11.18	128.43	1.12 %	12.84 %
60°	9.99	138.42	1.00 %	13.84 %
65°	8.84	147.26	0.88 %	14.73 %
70°	7.75	155.01	0.78 %	15.50 %
75°	6.79	161.80	0.68 %	16.18 %
80°	6.03	167.83	0.60 %	16.78 %
85°	5.76	173.59	0.58 %	17.36 %
90°	6.69	180.28	0.67 %	18.03 %
95°	8.67	188.94	0.87 %	18.89 %
100°	11.33	200.28	1.13 %	20.03 %
105°	15.64	215.91	1.56 %	21.59 %
110°	22.03	237.94	2.20 %	23.79 %
115°	30.13	268.07	3.01 %	26.81 %
120°	39.82	307.89	3.98 %	30.79 %
125°	50.42	358.31	5.04 %	35.83 %
130°	60.93	419.24	6.09 %	41.92 %
135°	70.27	489.51	7.03 %	48.95 %
140°	77.14	566.65	7.71 %	56.67 %
145°	80.60	647.25	8.06 %	64.73 %
150°	80.13	727.38	8.01 %	72.74 %
155°	75.31	802.70	7.53 %	80.27 %
160°	66.74	869.44	6.67 %	86.94 %
165°	55.23	924.67	5.52 %	92.47 %
170°	41.24	965.91	4.12 %	96.59 %
175°	25.46	991.37	2.55 %	99.14 %
180°	8.63	1000.00	0.86 %	100.00 %

Luminaire

Code 05-5964-DL-M1V2
Name DUNA

Measurement

Code 05-5964-DL-M1V2
Name DUNA

Luminaire Flux	2339 lm	Luminaire Power	32.2 W	Efficacy	72.545 lm/W	Efficiency	100.00%
Source Flux	2339 lm	Maximum value	369.92 cd/klm	Position	C=180.00 G=170.00	CG Asymmetrical	

Utilizations CIE

Mounting	Direct				Normalization				Normalised				Suspension Ratio 3								Standard CIE Settings							
	Ceiling																											
K	8873	8773	8871	8771	7773	7771	7753	7553	7751	7551	7731	7331	7711	7111	5551	5531	5331	5511	5111	3331	3311	1111	0000					
0.60	763	686	733	661	652	631	610	518	596	509	573	432	556	379	475	462	409	453	361	387	382	330	307					
0.80	836	767	789	727	729	695	680	595	657	578	630	501	610	446	540	525	474	513	425	450	442	389	364					
1.00	886	824	822	769	784	737	733	654	699	628	670	553	649	498	588	571	524	558	475	497	489	436	410					
1.25	930	876	848	804	834	772	782	710	735	672	707	601	684	547	632	615	571	600	524	544	535	482	455					
1.50	962	914	865	827	870	796	819	754	761	705	733	638	710	586	665	647	607	633	562	580	570	519	492					
2.00	1000	965	883	854	920	825	873	817	794	749	769	690	747	643	710	693	660	679	618	632	622	575	546					
2.50	1000	998	892	869	952	842	909	860	815	778	792	725	772	682	740	724	695	711	657	667	659	614	586					
3.00	1000	1000	898	878	975	854	936	893	829	797	808	750	789	710	761	747	721	734	686	694	685	643	615					
4.00	1000	1000	904	889	1000	867	972	937	847	822	830	784	813	750	789	776	756	765	727	730	722	684	656					
5.00	1000	1000	907	895	1000	875	995	966	858	838	843	805	829	776	806	796	778	785	753	753	746	711	683					
10.00	1000	1000	911	905	1000	890	1000	1000	880	870	871	851	862	833	843	837	827	830	812	805	800	773	745					
20.00	1000	1000	912	909	1000	896	1000	1000	891	885	886	875	881	866	862	859	854	855	845	833	831	808	781					

Luminaire

Code 05-5964-DL-M1V2
Name DUNA

Measurment

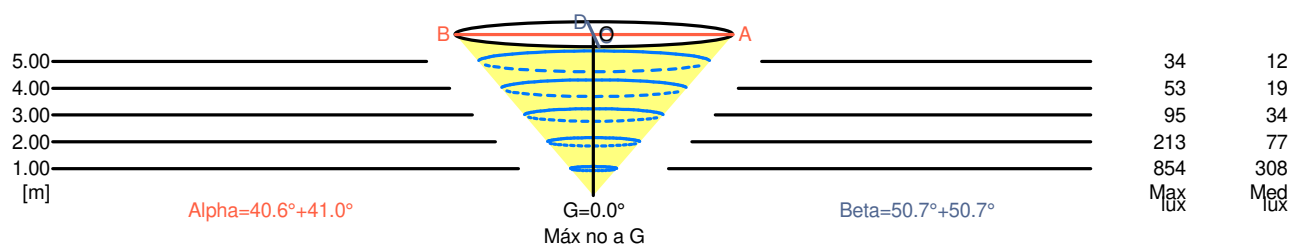
Code 05-5964-DL-M1V2
Name DUNA

Luminaire Flux	2339 lm	Luminaire Power	32.2 W	Efficacy	72.545 lm/W	Efficiency	100.00%
Source Flux	2339 lm	Maximum value	369.92 cd/klm	Position	C=180.00 G=170.00	CG	Asymmetrical

Width at 50.00 % of Max Intensity

H[m]	1.00	2.00	3.00	4.00	5.00	H[m]	1.00	2.00	3.00	4.00	5.00
OA	0.87	1.74	2.60	3.47	4.34	OC	1.22	2.45	3.67	4.89	6.12
OB	0.86	1.72	2.57	3.43	4.29	OD	1.22	2.45	3.67	4.89	6.12

	0	5	15	25	35	45	55	65	75	85
OA	847.41	827.56	751.75	623.80	503.26	390.74	286.98	197.08	129.17	78.11
OB	847.41	862.28	856.60	806.86	594.11	310.28	87.00	6.28	6.21	5.93
OC	847.41	837.53	801.98	727.58	624.91	506.07	377.08	247.29	126.83	32.47
OD	847.41	837.53	801.98	727.58	624.91	506.07	377.08	247.29	126.83	32.47

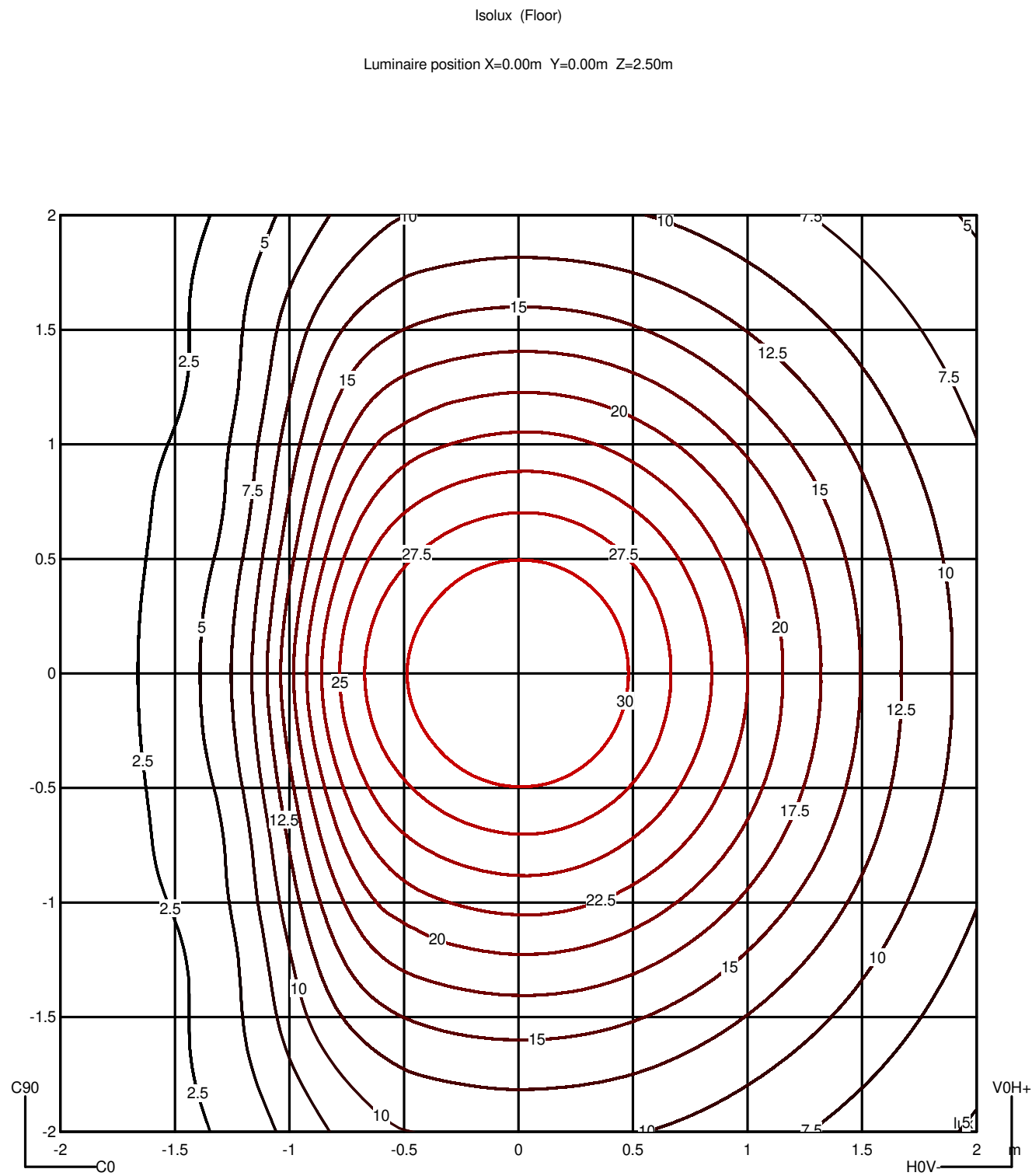


5.00	8.63	34	12		
4.00	6.90	53	19		
3.00	5.18	95	34		
2.00	3.45	213	77		
1.00	1.73	854	308		
H[m]	D[m]	Max lux	Med lux	Alpha=40.6°+41.0°	Máx no a G G=0.0

5.00	12.23	34	12		
4.00	9.78	53	19		
3.00	7.34	95	34		
2.00	4.89	213	77		
1.00	2.45	854	308		
H[m]	D[m]	Max lux	Med lux	Beta=50.7°+50.7°	Máx no a G G=0.0

Luminaire
Code 05-5964-DL-M1V2
Name DUNA
Measurem.
Code 05-5964-DL-M1V2
Name DUNA

Luminaire Flux	2339 lm	Luminaire Power	32.2 W	Efficacy	72.545 lm/W	Efficiency	100.00%
Source Flux	2339 lm	Maximum value	369.92 cd/klm	Position	C=180.00 G=170.00	CG	Asymmetrical



Luminaire

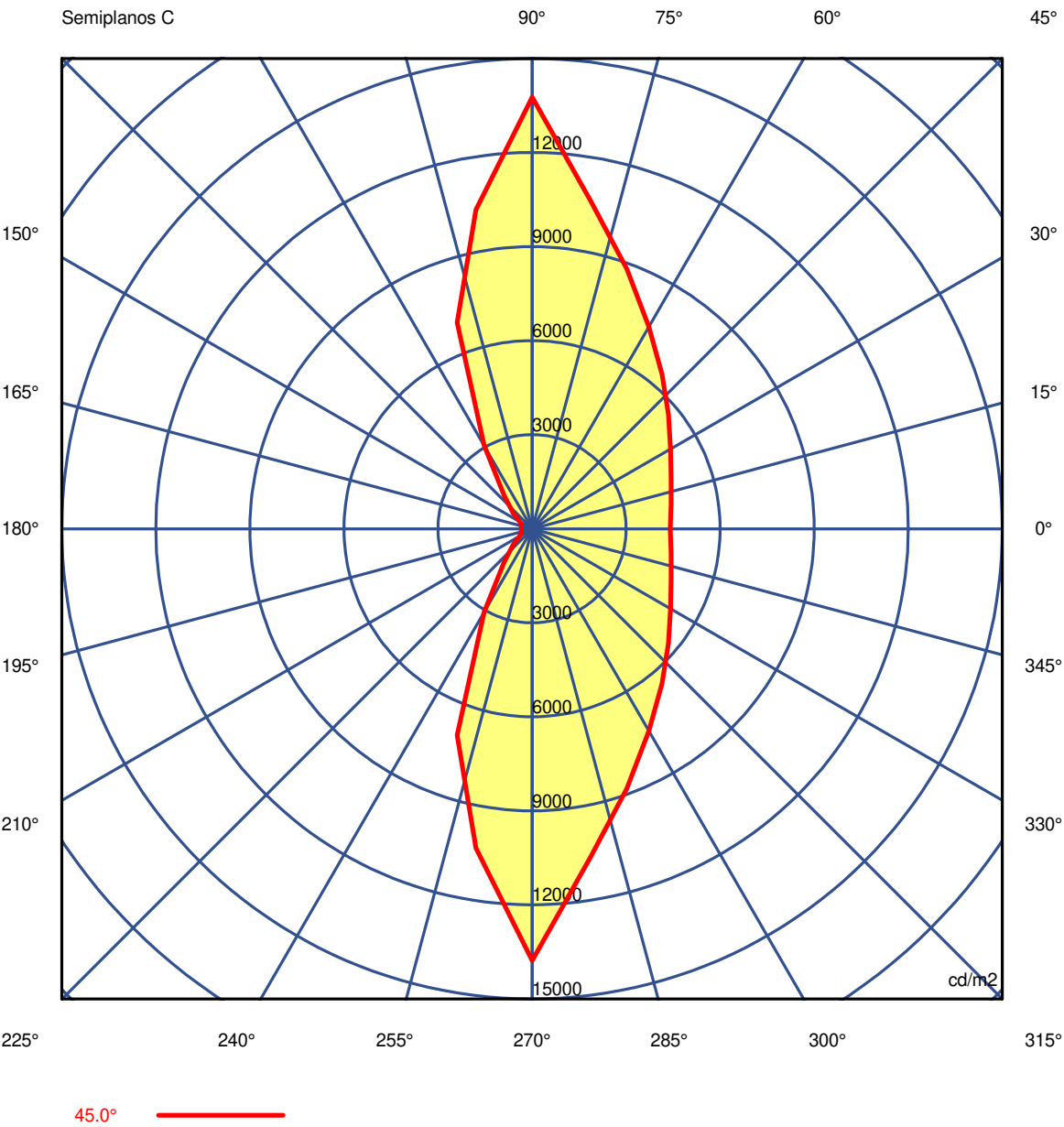
Code 05-5964-DL-M1V2
Name DUNA

Measurem.

Code 05-5964-DL-M1V2
Name DUNA

Luminaire Flux	2339 lm	Luminaire Power	32.2 W	Efficacy	72.545 lm/W	Efficiency	100.00%
Source Flux	2339 lm	Maximum value	369.92 cd/klm	Position	C=180.00 G=170.00	CG	Asymmetrical

Luminance



Luminaire

Code 05-5964-DL-M1V2
Name DUNA

Measurement

Code 05-5964-DL-M1V2
Name DUNA

Luminaire Flux		2339 lm		Luminaire Power		32.2 W		Efficacy		72.545 lm/W		Efficiency		100.00%	
Source Flux		2339 lm		Maximum value		369.92 cd/klm		Position		C=180.00 G=170.00		CG		Asymmetrical	
Luminance cd/m2														Table 1/3	
C 0.00		C 10.00	C 20.00	C 30.00	C 40.00	C 50.00	C 60.00	C 70.00	C 80.00	C 90.00	C 100.00	C 110.00	C 120.00		
G 0.0	20980.25	20980.25	20980.25	20980.25	20980.25	20980.25	20980.25	20980.25	20980.25	20980.25	20980.25	20980.25	20980.25	20980.25	20980.25
G 5.0	17593.02	17574.65	17642.01	17795.17	18033.54	18356.30	18761.53	19245.91	19805.10	20431.26	19810.09	19255.44	18774.86		
G 10.0	14989.56	14966.98	15074.92	15314.68	15685.93	16195.95	16853.37	17665.96	18641.49	19788.65	18623.05	17635.14	16814.04		
G 15.0	12769.98	12753.11	12899.31	13212.58	13684.01	14321.55	15149.51	16202.31	17499.94	19082.24	17437.41	16113.30	15062.73		
G 20.0	11025.87	11006.51	11148.75	11471.09	11989.92	12690.56	13605.66	14821.60	16372.33	18332.21	16277.27	14714.92	13504.41		
G 25.0	9363.42	9377.31	9564.42	9934.40	10481.35	11225.14	12212.73	13520.15	15244.59	17537.28	15144.20	13437.00	11974.32		
G 30.0	7960.24	7979.99	8184.36	8574.48	9119.72	9875.11	10905.81	12275.88	14118.70	16688.39	14038.98	12158.62	10185.18		
G 35.0	6517.83	6603.25	6866.69	7307.30	7881.39	8639.98	9670.05	11076.54	12981.50	15776.32	12878.89	10686.03	7928.13		
G 40.0	5391.19	5458.09	5680.87	6098.09	6723.15	7510.82	8516.76	9924.57	11815.37	14802.51	11654.33	8855.74	5327.42		
G 45.0	4404.50	4500.68	4714.50	5090.06	5674.64	6446.71	7448.64	8818.16	10648.50	13769.48	10335.48	7003.42	3069.67		
G 50.0	3757.19	3799.89	3962.64	4276.21	4770.03	5495.42	6482.07	7754.18	9534.09	12685.70	8841.72	5400.64	1753.03		
G 55.0	3241.79	3293.84	3401.10	3617.62	4054.70	4723.18	5605.68	6739.51	8516.48	11594.31	7592.90	3877.51	1075.38		
G 60.0	2890.04	2903.03	2980.20	3157.53	3507.49	4060.04	4811.25	5809.20	7601.96	10561.02	5735.25	2456.24	657.23		
G 65.0	2556.99	2589.66	2659.00	2795.08	3074.39	3489.96	4096.74	4976.41	6762.69	9613.87	4207.79	1450.96	484.24		
G 70.0	2296.22	2272.57	2346.14	2491.65	2653.41	2952.54	3458.32	4237.85	5628.17	8505.77	3107.44	924.15	467.69		
G 75.0	2423.63	2330.51	2263.07	2218.19	2252.95	2507.68	2997.04	3600.92	4728.77	6767.70	2189.53	874.69	500.93		
G 80.0	1872.64	2305.39	2380.17	2199.00	2317.55	2533.91	2904.56	3122.34	3355.01	4011.88	1152.95	659.50	592.60		
G 85.0	1482.72	2023.91	2592.94	3059.56	3216.83	3259.35	3289.24	3110.30	2482.68	1578.10	506.24	619.20	627.09		
G 90.0	1334.67	3164.77	4182.69	4348.84	4296.80	4206.34	4119.02	4015.27	3503.90	3184.89	1492.02	1046.22	662.54		

Luminaire

Code 05-5964-DL-M1V2
Name DUNA

Measurement

Code 05-5964-DL-M1V2
Name DUNA

Luminaire Flux	2339 lm	Luminaire Power	32.2 W	Efficacy	72.545 lm/W	Efficiency	100.00%
Source Flux	2339 lm	Maximum value	369.92 cd/klm	Position	C=180.00 G=170.00	CG	Asymmetrical

Luminance cd/m2 Table 2/3

	C 130.00	C 140.00	C 150.00	C 160.00	C 170.00	C 180.00	C 190.00	C 200.00	C 210.00	C 220.00	C 230.00	C 240.00	C 250.00
G 0.0	20980.25	20980.25	20980.25	20980.25	20980.25	20980.25	20980.25	20980.25	20980.25	20980.25	20980.25	20980.25	20980.25
G 5.0	18372.26	18050.69	17812.14	17657.95	17589.92	17608.08	17589.92	17657.95	17812.14	18050.69	18372.26	18774.86	19255.44
G 10.0	16147.53	15632.40	15265.64	15041.63	14949.85	14980.74	14949.85	15041.63	15265.64	15632.40	16147.53	16814.04	17635.14
G 15.0	14244.93	13634.50	13201.38	12917.78	12791.71	12821.81	12791.71	12917.78	13201.38	13634.50	14244.93	15062.73	16113.30
G 20.0	12477.68	11481.19	10559.16	9891.02	9531.21	9477.70	9531.21	9891.02	10559.16	11481.19	12477.68	13504.41	14714.92
G 25.0	10261.44	8337.05	6561.38	5377.23	4810.94	4709.89	4810.94	5377.23	6561.38	8337.05	10261.44	11974.32	13437.00
G 30.0	7413.97	4740.77	2972.91	2371.90	2236.69	2185.77	2236.69	2371.90	2972.91	4740.77	7413.97	10185.18	12158.62
G 35.0	4443.99	2270.47	1649.31	1346.98	1181.53	1151.18	1181.53	1346.98	1649.31	2270.47	4443.99	7928.13	10686.03
G 40.0	2544.72	1226.19	938.78	696.33	608.60	618.21	608.60	696.33	938.78	1226.19	2544.72	5327.42	8855.74
G 45.0	1395.63	789.48	461.49	365.33	350.37	343.65	350.37	365.33	461.49	789.48	1395.63	3069.67	7003.42
G 50.0	668.75	500.04	349.87	325.29	314.23	309.30	314.23	325.29	349.87	500.04	668.75	1753.03	5400.64
G 55.0	597.85	375.51	331.73	299.70	286.88	282.26	286.88	299.70	331.73	375.51	597.85	1075.38	3877.51
G 60.0	464.33	363.23	324.41	294.06	281.31	274.21	281.31	294.06	324.41	363.23	464.33	657.23	2456.24
G 65.0	408.79	360.07	328.63	301.68	283.56	273.61	283.56	301.68	328.63	360.07	408.79	484.24	1450.96
G 70.0	407.45	372.62	340.12	317.48	293.53	279.94	293.53	317.48	340.12	367.38	396.57	467.69	924.15
G 75.0	425.81	377.28	354.71	342.67	315.44	295.48	315.44	336.78	354.71	377.28	425.81	500.93	874.69
G 80.0	458.81	392.66	369.36	364.89	328.29	297.07	328.29	354.73	369.36	379.27	458.81	592.60	659.50
G 85.0	477.58	405.53	381.47	386.74	325.00	261.21	325.00	369.21	381.47	390.73	477.58	627.09	619.20
G 90.0	483.90	412.76	394.16	407.52	332.51	246.43	332.51	386.27	394.16	412.76	483.90	662.54	1046.22

Luminaire

Code 05-5964-DL-M1V2
Name DUNA

Measur.

Code 05-5964-DL-M1V2
Name DUNA

Luminaire Flux	2339 lm	Luminaire Power	32.2 W	Efficacy	72.545 lm/W	Efficiency	100.00%
Source Flux	2339 lm	Maximum value	369.92 cd/klm	Position	C=180.00 G=170.00	CG Asymmetrical	

Luminance cd/m2 Table 3/3

	C 260.00	C 270.00	C 280.00	C 290.00	C 300.00	C 310.00	C 320.00	C 330.00	C 340.00	C 350.00
G 0.0	20980.25	20980.25	20980.25	20980.25	20980.25	20980.25	20980.25	20980.25	20980.25	20980.25
G 5.0	19810.09	20431.26	19805.10	19245.91	18761.53	18356.30	18033.54	17795.17	17642.01	17574.65
G 10.0	18623.05	19788.65	18641.49	17665.96	16853.37	16195.95	15685.93	15314.68	15074.92	14966.98
G 15.0	17437.41	19082.24	17499.94	16202.31	15149.51	14321.55	13684.01	13212.58	12899.31	12753.11
G 20.0	16277.27	18332.21	16372.33	14821.60	13605.66	12690.56	11989.92	11471.09	11148.75	11006.51
G 25.0	15144.20	17537.28	15244.59	13520.15	12212.73	11225.14	10481.35	9934.40	9564.42	9377.31
G 30.0	14038.98	16688.39	14118.70	12275.88	10905.81	9875.11	9119.72	8574.48	8184.36	7979.99
G 35.0	12878.89	15776.32	12981.50	11076.54	9670.05	8639.98	7881.39	7307.30	6866.69	6603.25
G 40.0	11654.33	14802.51	11815.37	9924.57	8516.76	7510.82	6723.15	6098.09	5680.87	5458.09
G 45.0	10335.48	13769.48	10648.50	8818.16	7448.64	6446.71	5674.64	5090.06	4714.50	4500.68
G 50.0	8841.72	12685.70	9534.09	7754.18	6482.07	5495.42	4770.03	4276.21	3962.64	3799.89
G 55.0	7592.90	11594.31	8516.48	6739.51	5605.68	4723.18	4054.70	3617.62	3401.10	3293.84
G 60.0	5735.25	10561.02	7461.04	5809.20	4811.25	4060.04	3507.49	3157.53	2980.20	2903.03
G 65.0	4207.79	9613.87	6546.02	4976.41	4096.74	3489.96	3074.39	2795.08	2659.00	2589.66
G 70.0	3107.44	8505.77	5628.17	4269.77	3458.32	2952.54	2653.41	2491.65	2346.14	2272.57
G 75.0	2189.53	6767.70	4728.77	3600.92	2997.04	2507.68	2252.95	2218.19	2263.07	2330.51
G 80.0	1152.95	4011.88	3355.01	3122.34	2904.56	2533.91	2317.55	2199.00	2380.17	2305.39
G 85.0	506.24	1578.10	2482.68	3110.30	3289.24	3259.35	3216.83	3059.56	2592.94	2023.91
G 90.0	1492.02	3184.89	3503.90	4015.27	4119.02	4206.34	4296.80	4348.84	4182.69	3164.77

Luminaire

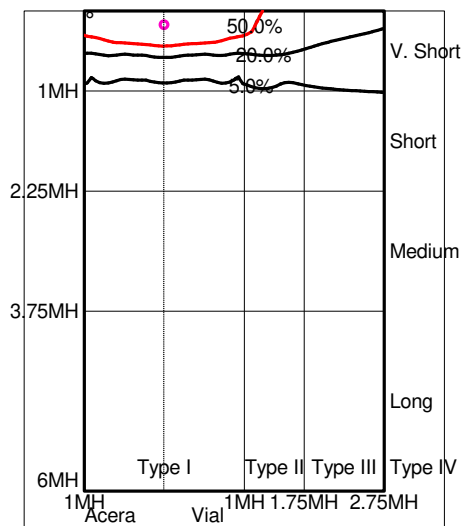
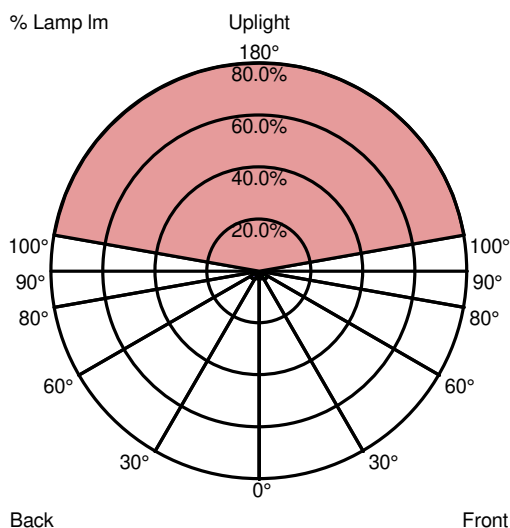
Code 05-5964-DL-M1V2
Name DUNA

Measurem.

Code 05-5964-DL-M1V2
Name DUNA

Luminaire Flux	2339 lm	Luminaire Power	32.2 W	Efficacy	72.545 lm/W	Efficiency	100.00%
Source Flux	2339 lm	Maximum value	369.92 cd/klm	Position	C=180.00 G=170.00	CG	Asymmetrical

US ROAD STANDARDS



Luminaire Classification System (LCS)				
LCS Zone		Lumens	%Lamp	%Lum
FL	0° -- 30°	72.2 lm	3.1 %	3.1 %
FM	30° -- 60°	89.6 lm	3.8 %	3.8 %
FH	60° -- 80°	34.4 lm	1.5 %	1.5 %
FVH	80° -- 90°	14.5 lm	0.6 %	0.6 %
BL	0° -- 30°	72.2 lm	3.1 %	3.1 %
BM	30° -- 60°	89.6 lm	3.8 %	3.8 %
BH	60° -- 80°	34.3 lm	1.5 %	1.5 %
BVH	80° -- 90°	14.5 lm	0.6 %	0.6 %
UL	90° -- 100°	46.6 lm	2.0 %	2.0 %
UH	100° -- 180°	1871.0 lm	80.0 %	80.0 %
TOTALS		2338.8 lm	100.0 %	100.0 %
BUG B0 U5 G1 Type II Very Short Asymmetrical				