

Scaled data based on original data using
LM-79-2019 Approved Method: Electrical and Photometric Measurements of Solid-
State Lighting Products

Test Report Prepared for
Cooper Lighting Solutions

Brand: NEO-RAY

Report Number: P644402

Luminaire Tested: CRQ4DIP-SR4F0-75D125U835-FLLOOB-1DUDD-WW

Issue Date: 2/20/2023



Test Information

Test Method: LM-79-2019
Report Number: P644402
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2203-563-26, G2-2206-689-14)
Test Lab: INNOVATION CENTER
Issue Date: 2/20/2023
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: CRQ4DIP-SR4F0-75D125U835-FLLOOB-1DUDD-WW
Description: NEO-RAY CIRQUE SUSPENDED LED LUMINAIRE
DOWNLIGHT - CURVED FROSTED LENS - 750 LUMENS PER FOOT
UPLIGHT - BATWING OPTIC - 1250 LUMENS PER FOOT
Light Source: 3500K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

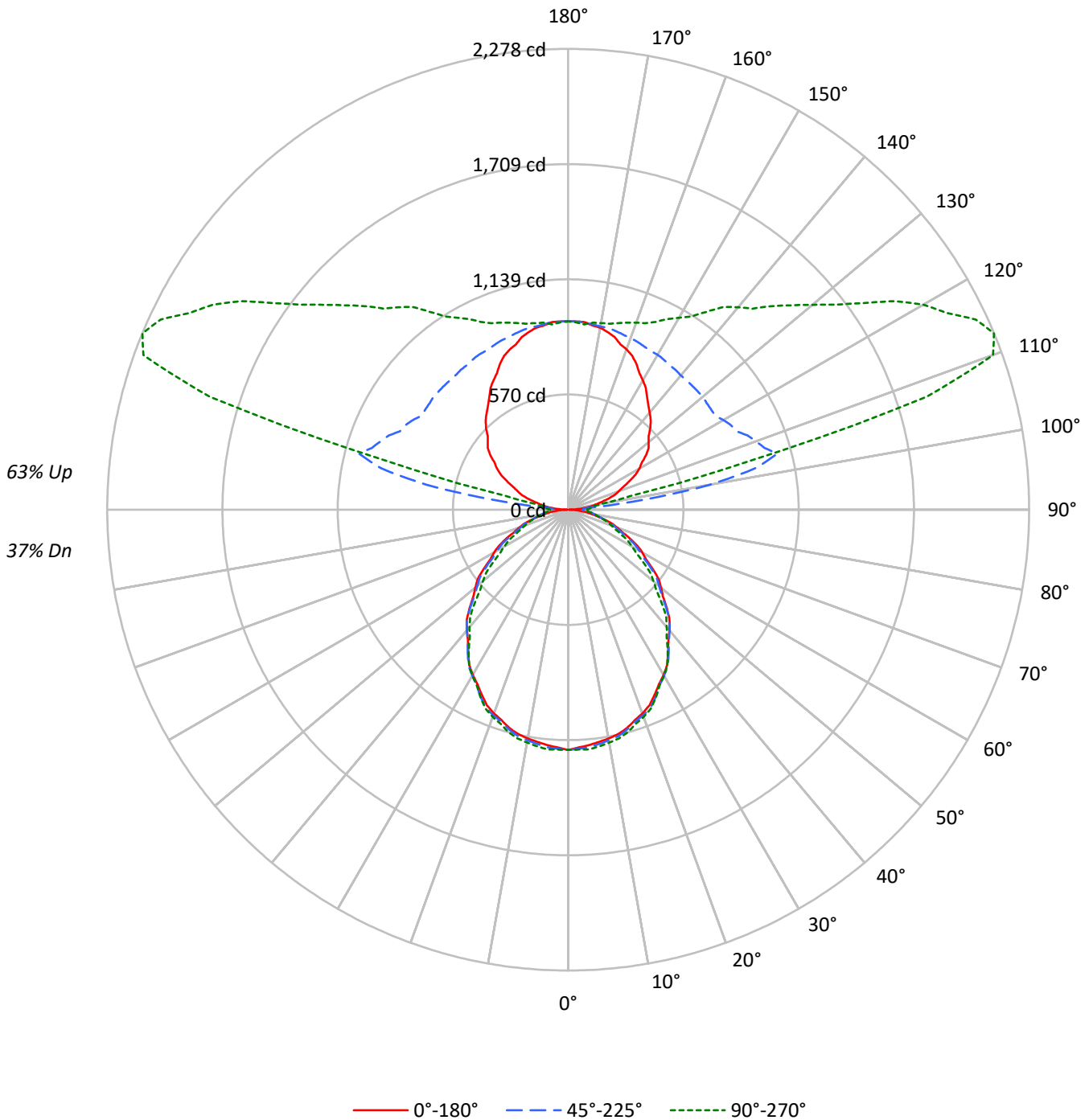
Lumens per Lamp: N/A
Luminaire Lumens: 8064.2 lumens
Efficiency: N/A
Efficacy: 134.4 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.19 / 1.3
Luminous Opening: Rectangular w/ Sides (W: 0.17' x L: 4' x H: 0.33')
CIE Type: Semi-Indirect

Input Watts (W): 60
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT

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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20				20				20				20			
RC	80				70				50				30				10	0		
RW	70	50	30	10	70	50	30	10	50	30	10		50	30	10		50	30	10	0
RCR																				
0	104	104	104	104	94	94	94	94	76	76	76		60	60	60		44	44	44	37
1	95	90	87	83	86	82	79	76	67	64	62		52	51	49		39	38	37	31
2	86	79	73	68	78	72	67	62	58	55	52		46	43	41		34	33	31	26
3	79	69	62	57	71	63	57	52	51	47	43		41	38	35		31	28	27	22
4	72	61	54	48	65	56	49	44	46	41	37		36	33	30		27	25	23	19
5	66	55	47	41	60	50	43	38	41	36	32		32	29	26		25	22	20	17
6	61	49	41	35	55	45	38	33	37	32	28		29	26	23		22	20	18	15
7	56	44	36	31	51	40	34	29	33	28	24		27	23	20		20	18	16	13
8	52	40	33	27	47	37	30	25	30	25	22		24	21	18		19	16	14	12
9	48	37	29	24	44	34	27	23	28	23	19		22	19	16		17	15	13	11
10	45	33	26	22	41	31	24	20	26	21	17		21	17	14		16	13	12	10

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	19168	19168	19168
5°	18806	16924	16400
10°	18559	15058	14167
15°	18288	13485	12392
20°	17869	12098	10838
25°	17311	10802	9444
30°	16763	9545	8197
35°	16020	8395	7036
40°	15328	7349	5965
45°	14526	6317	4978
50°	13678	5350	4083
55°	12782	4501	3293
60°	11925	3690	2632
65°	10871	2942	2083
70°	9857	2305	1646
75°	8617	1771	1298
80°	7198	1317	1010
85°	5247	958	768

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 14526 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	112.1	1.4
10°-20°	318.0	3.9
20°-30°	469.4	5.8
30°-40°	539.7	6.7
40°-50°	523.5	6.5
50°-60°	438.3	5.4
60°-70°	315.8	3.9
70°-80°	192.9	2.4
80°-90°	95.8	1.2
90°-100°	151.6	1.9
100°-110°	829.2	10.3
110°-120°	1112.1	13.8
120°-130°	903.3	11.2
130°-140°	725.2	9.0
140°-150°	571.5	7.1
150°-160°	417.9	5.2
160°-170°	259.6	3.2
170°-180°	88.5	1.1
0°-30°	899.4	11.2
0°-40°	1439.1	17.8
0°-60°	2400.9	29.8
0°-90°	3005.4	37.3
90°-120°	2092.8	26.0
90°-150°	4292.8	53.2
90°-180°	5059.0	62.7
0°-180°	8064.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1187	1187	1187	1187	1187	
5°	1169	1190	1179	1181	1189	111
15°	1118	1135	1125	1130	1139	315
25°	1010	1026	1023	1018	1024	465
35°	860	873	865	857	857	539
45°	689	696	684	664	654	531
55°	508	515	496	466	451	456
65°	335	337	320	297	288	334
75°	181	181	184	179	176	194
85°	55	67	92	99	99	58
90°	5	39	72	88	90	8
95°	64	102	82	100	113	67
105°	198	286	1068	1369	914	209
115°	334	396	917	1902	2223	331
125°	469	529	862	1505	1780	417
135°	574	637	867	1240	1423	442
145°	679	736	872	1080	1195	427
155°	796	825	890	979	1025	366
165°	884	896	914	937	954	248
175°	931	937	931	925	919	88
180°	931	931	931	931	931	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1187.2	1187.2	1187.2	1187.2	1187.2
2.5°	1176.5	1193.5	1183.2	1185.9	1187.2
5°	1168.8	1190.1	1178.8	1180.7	1188.9
7.5°	1158.0	1177.7	1167.8	1170.0	1179.5
10°	1148.6	1168.3	1157.0	1160.6	1168.8
12.5°	1136.6	1154.9	1146.3	1149.8	1158.0
15°	1118.5	1134.8	1125.2	1130.4	1138.6
17.5°	1091.6	1109.3	1099.0	1101.9	1110.1
20°	1071.5	1087.9	1081.6	1081.7	1089.9
22.5°	1047.4	1065.1	1060.1	1056.3	1065.8
25°	1009.5	1025.9	1022.9	1018.0	1024.5
27.5°	971.9	984.0	978.3	973.3	978.3
30°	942.4	957.1	947.4	942.5	947.4
32.5°	910.2	924.9	915.2	908.9	911.2
35°	860.2	873.3	865.2	856.9	856.9
37.5°	812.9	821.5	815.9	801.8	798.2
40°	778.1	787.9	779.7	762.8	757.9
42.5°	741.8	751.7	742.2	723.9	716.3
45°	689.2	695.7	684.2	663.8	654.0
47.5°	634.9	641.7	625.8	603.4	591.6
50°	598.6	606.8	586.9	563.1	550.0
52.5°	563.8	569.3	550.7	522.9	511.1
55°	508.1	514.6	496.3	465.8	451.1
57.5°	456.1	462.3	440.7	411.6	400.1
60°	422.6	427.5	405.8	375.4	363.9
62.5°	385.0	389.9	369.6	343.2	331.7
65°	335.4	337.0	320.3	296.6	288.4
67.5°	288.8	288.8	274.7	257.1	250.5
70°	256.6	256.6	246.5	232.9	226.4
72.5°	227.0	225.7	219.7	210.2	204.9
75°	181.1	181.1	184.5	179.3	176.1
77.5°	140.9	138.2	152.6	151.9	150.2
80°	114.0	114.0	132.5	135.8	134.1
82.5°	89.9	92.5	116.4	121.0	119.4
85°	55.3	66.8	92.2	98.9	98.9
87.5°	25.2	46.3	74.8	84.7	85.0
90°	5.0	38.6	72.1	88.0	89.7
92.5°	24.5	44.9	75.4	96.2	103.7
95°	63.6	102.1	82.1	100.0	113.0
97.5°	103.3	176.7	369.8	136.8	125.1
100°	131.4	217.2	711.1	232.0	166.5
102.5°	158.1	248.6	949.3	559.9	319.1
105°	198.3	285.8	1068.3	1369.1	914.4
107.5°	238.4	302.2	1016.6	1980.0	1856.8
110°	265.2	325.7	987.1	2077.3	2233.5



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	293.3	353.8	959.0	2016.1	2277.7
115°	333.8	395.9	916.8	1902.0	2222.7
117.5°	375.1	438.1	906.0	1777.3	2107.0
120°	406.6	466.3	885.9	1682.5	2026.1
122.5°	430.0	493.0	862.5	1602.3	1918.3
125°	469.3	529.0	862.5	1505.3	1780.1
127.5°	501.3	564.1	863.6	1392.8	1664.2
130°	518.7	587.4	868.3	1317.5	1575.2
132.5°	539.4	608.1	867.0	1283.7	1495.5
135°	573.9	636.8	866.6	1239.7	1422.9
137.5°	603.1	670.7	866.6	1191.1	1348.0
140°	626.6	689.5	866.6	1162.7	1305.8
142.5°	650.0	708.4	871.3	1129.7	1263.7
145°	679.3	736.5	872.5	1080.1	1194.6
147.5°	714.4	764.8	879.5	1044.3	1132.5
150°	737.8	783.6	884.2	1020.6	1095.0
152.5°	761.2	802.5	884.2	1001.5	1062.2
155°	796.4	825.0	890.1	978.9	1024.7
157.5°	824.5	852.0	897.1	964.6	997.8
160°	843.2	866.1	901.8	955.1	983.8
162.5°	857.3	880.2	906.5	950.2	969.7
165°	884.2	895.7	913.5	937.3	954.5
167.5°	899.4	909.7	919.3	931.3	941.6
170°	913.5	919.2	919.3	931.2	936.9
172.5°	918.2	928.5	924.0	926.5	932.2
175°	931.1	936.8	931.1	925.1	919.3
177.5°	931.1	935.6	931.1	931.0	926.4
180°	931.1	931.1	931.1	931.1	931.1

(END OF REPORT)