

Signify Classified - Internal
Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269



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: P644395

Luminaire Tested: CRQ4DIP-SR4F0-75D100U935-FLLFLL-1DUDD-WW

Issue Date: 2/20/2023



Test Information

Test Method: LM-79-2019
Report Number: P644395
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2206-689-28, G2-2206-689-14)
Test Lab: INNOVATION CENTER
Issue Date: 2/20/2023
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: CRQ4DIP-SR4F0-75D100U935-FLLFLL-1DUDD-WW
Description: NEO-RAY CIRQUE SUSPENDED LED LUMINAIRE
DOWNLIGHT - CURVED FROSTED LENS - 750 LUMENS PER FOOT
UPLIGHT - CURVED FROSTED LENS - 1000 LUMENS PER FOOT
Light Source: 3500K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

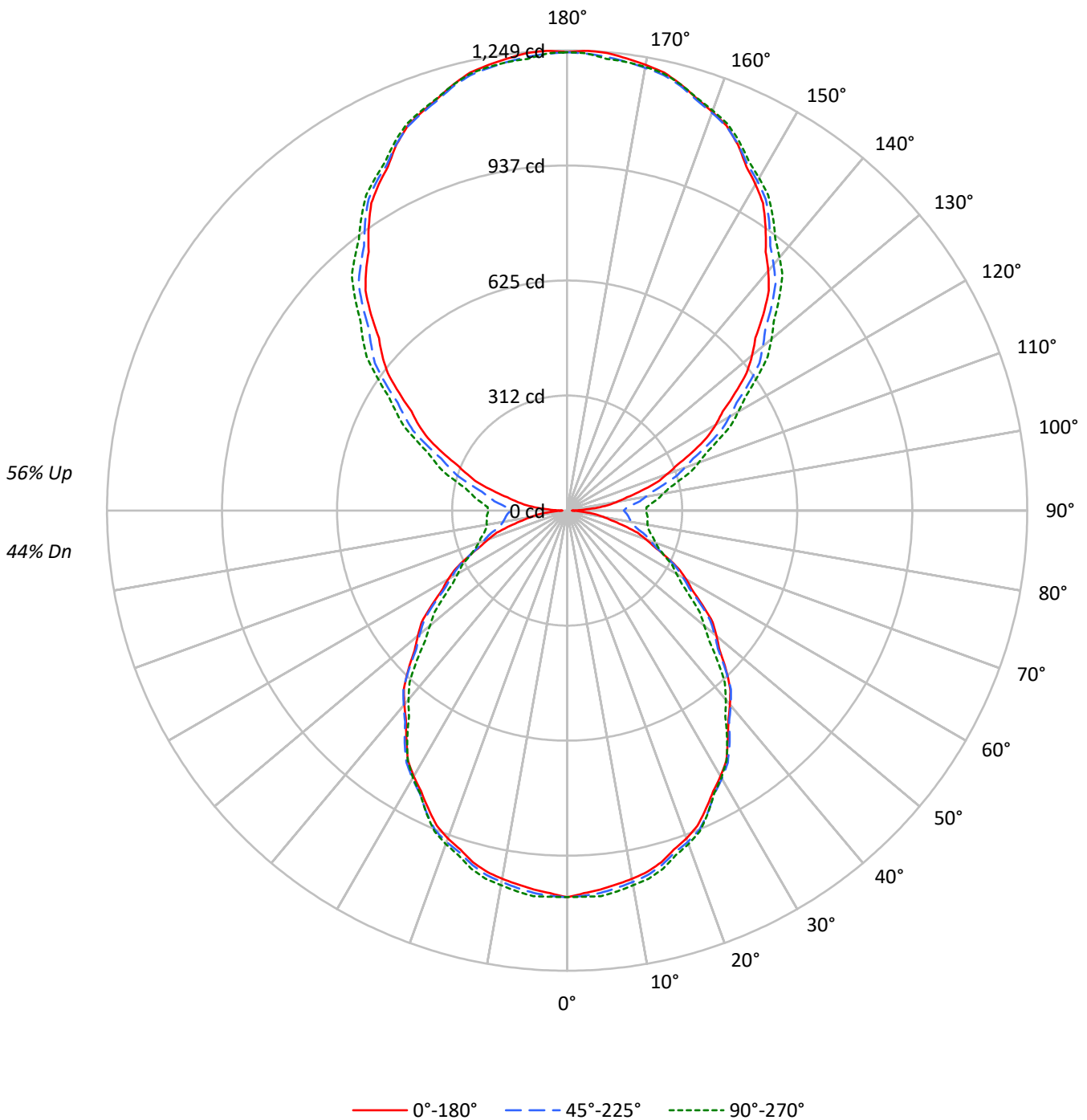
Lumens per Lamp: N/A
Luminaire Lumens: 6379.0 lumens
Efficiency: N/A
Efficacy: 125.6 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.19 / 1.3
Luminous Opening: Rectangular w/ Sides (W: 0.17' x L: 4' x H: 0.33')
CIE Type: General Diffuse

Input Watts (W): 50.8
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	106	106	106	106	97	97	97	97	80	80	80	65	65	65	51	51	51	44
1	96	91	87	83	87	83	80	77	69	66	64	56	54	52	44	42	41	36
2	87	79	73	68	79	73	67	63	60	56	53	49	46	43	38	36	35	30
3	79	70	62	56	72	64	58	52	53	48	44	43	40	37	34	31	29	25
4	73	62	54	48	66	57	50	44	47	42	38	38	35	31	30	28	25	21
5	67	55	47	41	61	51	43	38	42	37	33	35	30	27	27	24	22	19
6	61	49	41	35	56	45	38	33	38	33	28	31	27	24	25	22	19	16
7	57	44	37	31	52	41	34	29	35	29	25	28	24	21	23	20	17	15
8	53	40	33	27	48	37	30	26	31	26	22	26	22	19	21	18	16	13
9	49	37	29	24	45	34	27	23	29	24	20	24	20	17	19	16	14	12
10	46	34	27	22	42	31	25	20	27	21	18	22	18	15	18	15	13	11

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	16939	16939	16939
5°	16618	14956	14492
10°	16400	13323	12518
15°	16159	11932	10950
20°	15789	10704	9577
25°	15297	9546	8345
30°	14812	8461	7244
35°	14156	7456	6218
40°	13543	6507	5270
45°	12836	5594	4399
50°	12087	4764	3608
55°	11295	4001	2977
60°	10537	3309	2479
65°	9604	2721	2108
70°	8708	2247	1857
75°	7613	1933	1721
80°	6364	1754	1669
85°	4640	1724	1704

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 12836 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	99.1	1.6
10°-20°	281.2	4.4
20°-30°	415.2	6.5
30°-40°	477.9	7.5
40°-50°	463.9	7.3
50°-60°	391.7	6.1
60°-70°	296.6	4.6
70°-80°	212.6	3.3
80°-90°	163.6	2.6
90°-100°	180.9	2.8
100°-110°	282.7	4.4
110°-120°	414.4	6.5
120°-130°	535.4	8.4
130°-140°	605.3	9.5
140°-150°	598.1	9.4
150°-160°	505.9	7.9
160°-170°	336.8	5.3
170°-180°	117.8	1.8
0°-30°	795.5	12.5
0°-40°	1273.4	20.0
0°-60°	2129.0	33.4
0°-90°	2801.8	43.9
90°-120°	878.0	13.8
90°-150°	2616.7	41.0
90°-180°	3577.0	56.1
0°-180°	6379.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1049	1049	1049	1049	1049	
5°	1033	1052	1042	1043	1051	98
15°	988	1005	996	999	1006	278
25°	892	909	904	900	905	411
35°	760	776	768	757	757	476
45°	609	619	606	587	578	469
55°	449	460	441	416	408	403
65°	296	306	296	293	292	295
75°	160	170	201	226	234	171
85°	49	90	166	208	220	52
90°	14	73	154	199	213	12
95°	74	100	178	221	230	74
105°	209	218	270	308	315	223
115°	374	388	420	446	452	371
125°	557	576	602	624	629	499
135°	753	770	784	804	814	580
145°	939	951	956	963	973	587
155°	1096	1103	1098	1099	1106	503
165°	1197	1202	1193	1189	1197	337
175°	1247	1252	1236	1231	1231	118
180°	1244	1244	1244	1244	1244	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1049.1	1049.1	1049.1	1049.1	1049.1
2.5°	1039.6	1054.7	1046.6	1047.9	1049.1
5°	1032.8	1051.6	1041.7	1043.3	1050.6
7.5°	1023.3	1041.7	1033.2	1033.9	1042.3
10°	1015.0	1032.4	1023.7	1025.5	1032.8
12.5°	1004.3	1022.6	1013.2	1016.0	1023.3
15°	988.3	1005.4	995.6	998.9	1006.1
17.5°	964.6	981.6	972.5	973.7	980.9
20°	946.8	962.6	957.0	955.9	963.1
22.5°	925.5	942.4	938.1	933.4	941.8
25°	892.0	909.1	903.9	899.6	905.3
27.5°	858.8	874.2	866.0	860.1	864.5
30°	832.7	848.4	839.8	832.8	837.2
32.5°	804.3	820.9	811.4	803.2	805.2
35°	760.1	775.6	768.5	757.2	757.2
37.5°	718.4	731.1	722.3	708.5	705.3
40°	687.5	701.4	690.3	674.1	669.7
42.5°	655.5	669.4	658.2	639.7	633.0
45°	609.0	618.7	605.9	586.6	577.9
47.5°	561.0	572.0	554.8	533.2	522.8
50°	529.0	540.1	522.6	497.6	486.0
52.5°	498.2	508.0	489.5	463.1	453.7
55°	449.0	459.9	441.2	415.7	407.8
57.5°	403.0	413.7	393.6	375.6	368.3
60°	373.4	382.9	363.9	348.9	342.7
62.5°	340.2	350.8	334.0	325.8	321.6
65°	296.3	305.5	296.2	292.6	291.8
67.5°	255.2	262.9	260.9	267.2	269.4
70°	226.7	234.5	240.3	252.3	255.5
72.5°	200.6	208.3	224.0	240.6	245.0
75°	160.0	170.4	201.3	226.1	233.5
77.5°	124.5	136.1	184.8	216.1	225.2
80°	100.8	118.8	176.5	211.4	221.6
82.5°	79.4	104.0	170.7	210.0	220.1
85°	48.9	90.0	166.0	207.9	219.5
87.5°	24.1	79.7	160.2	203.8	217.0
90°	13.7	73.2	153.7	198.6	213.0
92.5°	36.4	80.2	161.1	204.9	216.3
95°	74.3	99.9	177.7	221.3	230.5
97.5°	111.6	127.6	199.8	240.3	249.2
100°	138.0	149.8	217.2	256.5	264.6
102.5°	166.4	175.1	237.8	275.0	284.0
105°	209.0	218.4	270.2	308.0	314.8
107.5°	256.3	266.5	310.3	345.8	352.6
110°	287.9	301.3	339.8	372.0	379.9



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	322.8	336.2	370.4	400.2	408.1
115°	373.6	388.4	420.3	445.6	452.0
117.5°	426.7	442.8	471.8	495.3	501.5
120°	465.7	480.9	508.7	531.1	536.2
122.5°	500.6	517.7	545.6	568.0	573.2
125°	556.7	575.7	602.4	623.5	628.7
127.5°	614.3	633.1	657.6	679.0	685.7
130°	655.4	672.2	693.6	716.0	723.8
132.5°	693.2	710.0	729.4	752.0	760.8
135°	752.8	769.6	784.5	804.5	813.6
137.5°	810.2	826.4	837.9	853.7	865.1
140°	849.2	863.5	871.7	886.5	896.8
142.5°	885.2	899.4	905.5	918.2	928.5
145°	939.1	950.7	956.2	963.1	973.4
147.5°	989.5	1000.9	1003.2	1009.2	1015.7
150°	1022.3	1032.6	1032.8	1035.6	1042.1
152.5°	1052.9	1062.2	1059.2	1061.0	1068.5
155°	1096.2	1102.7	1097.5	1099.0	1105.5
157.5°	1130.6	1137.0	1129.0	1131.5	1136.6
160°	1151.7	1158.2	1149.1	1150.5	1155.7
162.5°	1171.8	1176.2	1168.1	1166.4	1173.6
165°	1196.6	1201.8	1192.6	1188.9	1196.6
167.5°	1217.7	1222.9	1210.9	1206.8	1214.6
170°	1228.3	1233.5	1220.4	1215.3	1223.0
172.5°	1237.8	1243.0	1228.8	1222.6	1228.3
175°	1246.8	1252.0	1236.2	1230.9	1230.9
177.5°	1249.4	1252.5	1241.0	1235.8	1242.0
180°	1244.2	1244.2	1244.2	1244.2	1244.2

(END OF REPORT)