

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: P644443

Luminaire Tested: CRQ4DIP-SR4F0-75D50U935-FLLFLL-1DUDD-WW

Issue Date: 2/20/2023



Test Information

Test Method: LM-79-2019
Report Number: P644443
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-SR4F0-75D50U935-FLLFLL-1DUDD-WW
Description: NEO-RAY CIRQUE SUSPENDED LED LUMINAIRE
DOWNLIGHT - CURVED FROSTED LENS - 750 LUMENS PER FOOT
UPLIGHT - CURVED FROSTED LENS - 500 LUMENS PER FOOT
Light Source: 3500K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

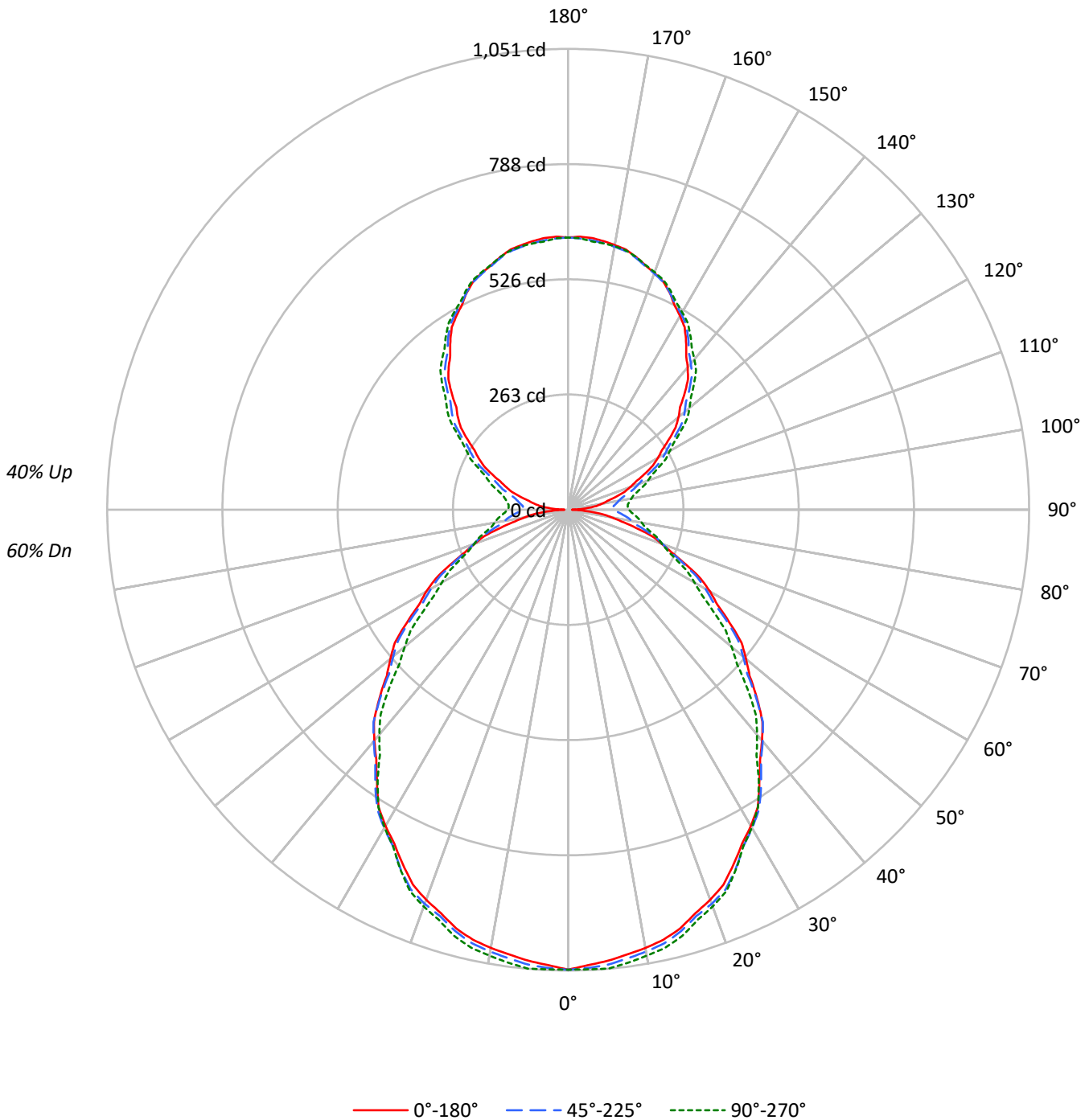
Lumens per Lamp: N/A
Luminaire Lumens: 4537.8 lumens
Efficiency: N/A
Efficacy: 124.7 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.19 / 1.3
Luminous Opening: Rectangular w/ Sides (W: 0.17' x L: 4' x H: 0.33')
CIE Type: Semi-Direct

Input Watts (W): 36.4
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	110	110	110	110	102	102	102	102	89	89	89	77	77	77	65	65	65	60
1	99	95	91	87	93	89	85	82	77	74	72	67	65	63	57	55	54	49
2	91	83	76	71	84	77	72	67	68	63	59	58	55	52	50	48	45	41
3	83	73	65	59	77	68	61	56	60	54	50	52	48	44	44	41	39	35
4	76	65	56	50	70	61	53	48	53	47	43	46	42	38	40	36	33	30
5	70	58	49	43	65	54	47	41	48	42	37	42	37	33	36	32	29	26
6	64	52	43	37	60	49	41	36	43	37	32	38	33	29	33	29	26	23
7	59	47	39	33	55	44	37	32	39	33	29	34	29	26	30	26	23	21
8	55	43	35	29	51	40	33	28	36	30	26	31	27	23	27	24	21	18
9	51	39	31	26	48	37	30	25	33	27	23	29	24	21	25	22	19	17
10	48	36	28	24	45	34	27	23	30	25	21	27	22	19	24	20	17	15

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	16939	16939	16939
5°	16618	14956	14492
10°	16400	13315	12518
15°	16159	11924	10950
20°	15789	10697	9577
25°	15297	9546	8345
30°	14812	8448	7244
35°	14156	7438	6218
40°	13543	6501	5270
45°	12836	5588	4399
50°	12087	4745	3608
55°	11295	3990	2943
60°	10537	3284	2402
65°	9604	2660	1974
70°	8708	2142	1655
75°	7613	1748	1434
80°	6364	1458	1280
85°	4640	1285	1190

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°	99.0	2.2
10°-20°	281.1	6.2
20°-30°	415.0	9.1
30°-40°	477.4	10.5
40°-50°	463.2	10.2
50°-60°	389.5	8.6
60°-70°	287.8	6.3
70°-80°	191.5	4.2
80°-90°	123.1	2.7
90°-100°	106.7	2.4
100°-110°	147.0	3.2
110°-120°	208.8	4.6
120°-130°	268.0	5.9
130°-140°	302.1	6.7
140°-150°	298.4	6.6
150°-160°	252.4	5.6
160°-170°	168.0	3.7
170°-180°	58.8	1.3
0°-30°	795.1	17.5
0°-40°	1272.6	28.0
0°-60°	2125.3	46.8
0°-90°	2727.7	60.1
90°-120°	462.5	10.2
90°-150°	1331.0	29.3
90°-180°	1810.0	39.9
0°-180°	4537.8	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	1004	995	999	1006	278
25°	892	908	904	900	905	411
35°	760	774	767	757	757	476
45°	609	617	605	587	578	469
55°	449	457	440	414	403	403
65°	296	302	290	277	273	295
75°	160	165	182	192	194	171
85°	49	74	124	148	153	52
90°	9	51	103	130	138	9
95°	44	57	104	131	136	43
105°	112	112	138	160	165	119
115°	192	196	211	224	227	190
125°	281	289	301	311	314	251
135°	376	384	391	401	406	290
145°	468	474	477	480	486	293
155°	547	550	548	548	552	251
165°	597	600	595	593	597	168
175°	622	625	617	614	614	59
180°	621	621	621	621	621	

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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	1046.0	1047.9	1049.1
5°	1032.8	1051.6	1041.7	1043.3	1050.6
7.5°	1023.3	1041.2	1032.5	1033.9	1042.3
10°	1015.0	1032.4	1023.1	1025.5	1032.8
12.5°	1004.3	1021.6	1013.1	1016.0	1023.3
15°	988.3	1004.1	994.9	998.9	1006.1
17.5°	964.6	980.9	971.8	973.7	980.9
20°	946.8	962.0	956.4	955.9	963.1
22.5°	925.5	941.8	937.4	933.4	941.8
25°	892.0	907.8	903.9	899.6	905.3
27.5°	858.8	871.9	865.2	860.1	864.5
30°	832.7	847.1	838.5	832.8	837.2
32.5°	804.3	819.1	810.1	803.2	805.2
35°	760.1	773.7	766.6	757.2	757.2
37.5°	718.4	728.5	721.7	708.5	705.3
40°	687.5	698.8	689.7	674.1	669.7
42.5°	655.5	666.8	657.0	639.7	633.0
45°	609.0	616.7	605.2	586.6	577.9
47.5°	561.0	569.5	553.9	533.2	522.8
50°	529.0	538.2	520.6	497.6	486.0
52.5°	498.2	505.5	488.1	462.6	452.7
55°	449.0	457.3	439.9	413.7	403.2
57.5°	403.0	411.1	391.5	369.6	360.9
60°	373.4	380.3	361.2	340.3	332.1
62.5°	340.2	347.6	330.3	314.5	307.3
65°	296.3	301.7	289.6	277.3	273.3
67.5°	255.2	259.0	251.8	247.2	245.4
70°	226.7	230.6	229.0	229.0	227.7
72.5°	200.6	203.9	209.0	213.1	213.0
75°	160.0	165.2	182.1	192.2	194.5
77.5°	124.5	129.1	159.7	175.1	178.9
80°	100.8	109.8	146.7	165.6	169.9
82.5°	79.4	92.8	136.7	158.3	162.7
85°	48.9	74.5	123.7	147.5	153.3
87.5°	23.1	59.8	112.0	137.6	144.4
90°	9.1	51.1	103.4	130.3	138.2
92.5°	22.8	51.1	102.4	128.7	135.7
95°	44.5	56.6	104.3	131.2	136.5
97.5°	64.6	68.1	111.0	135.5	140.8
100°	77.7	78.6	117.3	140.6	146.1
102.5°	91.3	90.6	125.2	147.5	152.8
105°	111.7	112.0	138.5	160.4	165.2
107.5°	134.4	135.3	156.9	176.7	180.8
110°	149.6	152.6	171.0	188.6	193.2



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	167.0	170.0	186.3	201.5	206.1
115°	191.6	196.1	211.2	223.8	227.0
117.5°	217.2	223.2	236.7	247.7	250.8
120°	236.1	242.2	254.5	265.0	267.5
122.5°	253.5	260.0	273.0	283.4	286.0
125°	280.7	288.8	301.3	311.1	313.7
127.5°	308.6	317.3	328.8	338.8	342.1
130°	328.5	336.9	346.8	357.2	361.1
132.5°	346.1	354.5	364.0	375.2	379.6
135°	375.6	384.0	391.4	401.4	405.9
137.5°	404.2	412.3	418.0	425.9	431.6
140°	423.7	430.8	434.9	442.3	447.4
142.5°	441.6	448.7	451.8	458.1	463.2
145°	468.5	474.3	477.1	480.5	485.6
147.5°	493.7	499.4	500.5	503.5	506.7
150°	510.0	515.2	515.3	516.7	519.9
152.5°	525.3	530.0	528.5	529.4	533.1
155°	546.9	550.1	547.6	548.3	551.5
157.5°	564.1	567.3	563.3	564.5	567.1
160°	574.6	577.8	573.3	574.0	576.6
162.5°	584.6	586.8	582.8	581.9	585.5
165°	597.0	599.6	595.0	593.1	597.0
167.5°	607.6	610.1	604.1	602.1	606.0
170°	612.8	615.4	608.9	606.3	610.2
172.5°	617.6	620.1	613.1	610.0	612.8
175°	622.0	624.6	616.8	614.1	614.1
177.5°	623.4	624.9	619.1	616.6	619.7
180°	620.7	620.7	620.7	620.7	620.7

(END OF REPORT)