

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: P644332

Luminaire Tested: CRQ4DIP-SR4F0-50D125U840-FLLOOB-1DUDD-WW

Issue Date: 2/20/2023



Test Information

Test Method: LM-79-2019
Report Number: P644332
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-SR4F0-50D125U840-FLLOOB-1DUDD-WW
Description: NEO-RAY CIRQUE SUSPENDED LED LUMINAIRE
DOWNLIGHT - CURVED FROSTED LENS - 500 LUMENS PER FOOT
UPLIGHT - BATWING OPTIC - 1250 LUMENS PER FOOT
Light Source: 4000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

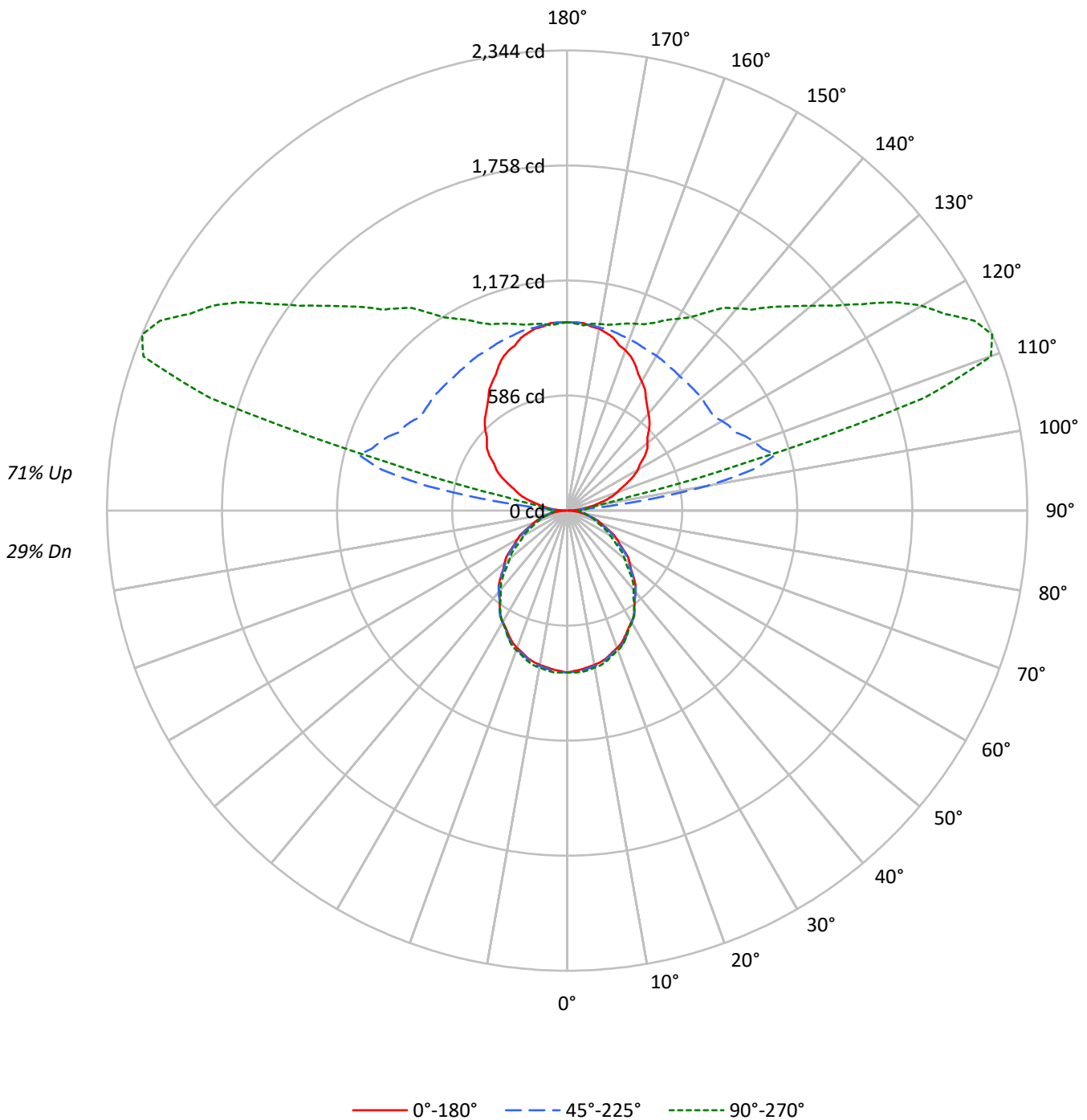
Lumens per Lamp: N/A
Luminaire Lumens: 7279.8 lumens
Efficiency: N/A
Efficacy: 138.7 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.19 / 1.3
Luminous Opening: Rectangular w/ Sides (W: 0.17' x L: 4' x H: 0.33')
CIE Type: Semi-Indirect

Input Watts (W): 52.5
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
RC	80					70						30							10
RW	70	50	30	10		70	50	30	10		50	30	10		50	30	10		50
RCR																			
0	102	102	102	102		91	91	91	91		72	72	72		53	53	53		37
1	93	89	85	81		83	80	76	73		62	60	58		47	45	44		32
2	85	77	71	66		75	69	64	60		55	51	48		41	39	37		28
3	77	68	61	55		69	61	55	50		48	44	41		36	33	31		25
4	71	60	53	47		63	54	48	43		43	38	34		32	29	27		22
5	65	53	46	40		58	48	41	36		38	33	30		29	26	23		20
6	59	48	40	34		53	43	36	32		34	29	26		26	23	20		18
7	55	43	35	30		49	39	32	28		31	26	23		24	20	18		17
8	51	39	32	26		45	35	29	24		28	23	20		22	18	16		15
9	47	35	28	23		42	32	26	21		26	21	18		20	16	14		14
10	44	32	25	21		39	29	23	19		24	19	16		18	15	13		13

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	13322	13322	13322
5°	13070	11763	11398
10°	12899	10465	9846
15°	12709	9372	8612
20°	12419	8408	7532
25°	12031	7508	6564
30°	11651	6634	5698
35°	11133	5834	4890
40°	10651	5108	4146
45°	10096	4390	3459
50°	9505	3718	2838
55°	8882	3129	2288
60°	8288	2564	1829
65°	7555	2045	1448
70°	6849	1602	1143
75°	5991	1231	902
80°	5001	915	702
85°	3653	666	534

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 10096 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	77.9	1.1
10°-20°	221.0	3.0
20°-30°	326.2	4.5
30°-40°	375.1	5.2
40°-50°	363.8	5.0
50°-60°	304.6	4.2
60°-70°	219.4	3.0
70°-80°	134.1	1.8
80°-90°	67.3	0.9
90°-100°	143.7	2.0
100°-110°	849.4	11.7
110°-120°	1143.7	15.7
120°-130°	929.5	12.8
130°-140°	746.7	10.3
140°-150°	588.6	8.1
150°-160°	430.4	5.9
160°-170°	267.3	3.7
170°-180°	91.2	1.3
0°-30°	625.1	8.6
0°-40°	1000.2	13.7
0°-60°	1668.6	22.9
0°-90°	2089.5	28.7
90°-120°	2136.7	29.4
90°-150°	4401.6	60.5
90°-180°	5190.0	71.3
0°-180°	7279.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	825	825	825	825	825	
5°	812	827	819	821	826	77
15°	777	789	782	786	791	219
25°	702	713	711	708	712	323
35°	598	607	601	596	596	374
45°	479	484	476	461	454	369
55°	353	358	345	324	314	317
65°	233	234	223	206	200	232
75°	126	126	128	125	122	135
85°	38	46	64	69	69	41
90°	4	29	54	67	68	6
95°	60	100	73	87	100	64
105°	199	292	1097	1405	936	210
115°	340	406	943	1958	2288	337
125°	481	544	888	1550	1833	427
135°	591	656	892	1277	1465	455
145°	700	758	898	1112	1230	439
155°	820	850	917	1008	1055	376
165°	911	922	941	965	983	256
175°	959	965	959	953	947	91
180°	959	959	959	959	959	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	825.1	825.1	825.1	825.1	825.1
2.5°	817.6	829.5	822.3	824.2	825.1
5°	812.3	827.1	819.3	820.6	826.3
7.5°	804.8	818.5	811.6	813.1	819.7
10°	798.3	812.0	804.1	806.6	812.3
12.5°	789.9	802.7	796.7	799.1	804.8
15°	777.3	788.7	782.0	785.6	791.3
17.5°	758.7	771.0	763.8	765.8	771.5
20°	744.7	756.1	751.7	751.8	757.5
22.5°	727.9	740.2	736.8	734.1	740.7
25°	701.6	713.0	710.9	707.5	712.1
27.5°	675.5	683.9	679.9	676.5	679.9
30°	655.0	665.2	658.5	655.0	658.5
32.5°	632.6	642.8	636.1	631.7	633.3
35°	597.8	607.0	601.3	595.5	595.5
37.5°	565.0	570.9	567.1	557.2	554.7
40°	540.7	547.6	541.9	530.2	526.8
42.5°	515.6	522.4	515.8	503.1	497.9
45°	479.0	483.5	475.5	461.3	454.5
47.5°	441.2	446.0	434.9	419.4	411.2
50°	416.0	421.7	407.9	391.4	382.3
52.5°	391.8	395.7	382.7	363.4	355.2
55°	353.1	357.7	345.0	323.7	313.5
57.5°	317.0	321.3	306.3	286.0	278.1
60°	293.7	297.1	282.0	260.9	252.9
62.5°	267.6	271.0	256.9	238.5	230.5
65°	233.1	234.2	222.6	206.1	200.4
67.5°	200.7	200.7	190.9	178.7	174.1
70°	178.3	178.3	171.3	161.9	157.3
72.5°	157.8	156.9	152.7	146.1	142.4
75°	125.9	125.9	128.2	124.6	122.4
77.5°	97.9	96.1	106.1	105.6	104.4
80°	79.2	79.2	92.1	94.4	93.2
82.5°	62.5	64.3	80.9	84.1	83.0
85°	38.5	46.4	64.1	68.8	68.8
87.5°	17.5	32.6	52.8	60.0	60.3
90°	3.5	28.8	54.0	67.1	68.2
92.5°	21.7	37.8	61.0	79.0	85.8
95°	59.9	100.0	72.7	87.2	100.1
97.5°	99.6	178.6	372.3	129.1	116.3
100°	128.6	220.8	725.6	229.3	160.8
102.5°	156.6	253.5	972.7	568.8	320.2
105°	198.6	292.0	1097.3	1404.9	935.5
107.5°	240.6	309.5	1045.3	2035.8	1908.4
110°	268.6	333.7	1015.4	2137.0	2297.3



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	297.6	362.6	986.5	2074.9	2343.7
115°	339.8	406.0	943.1	1957.6	2287.8
117.5°	383.0	449.4	932.0	1829.8	2169.4
120°	415.9	478.5	911.7	1732.7	2086.5
122.5°	440.0	506.4	887.6	1650.0	1975.5
125°	481.1	543.6	887.6	1550.2	1833.2
127.5°	514.6	579.8	888.8	1434.3	1713.8
130°	533.0	603.7	893.6	1356.8	1622.1
132.5°	555.3	626.0	892.7	1322.0	1540.1
135°	591.0	655.8	892.5	1276.7	1465.4
137.5°	621.1	690.7	892.5	1226.6	1388.2
140°	645.2	710.1	892.5	1197.3	1344.7
142.5°	669.4	729.5	897.3	1163.4	1301.3
145°	699.5	758.5	898.5	1112.2	1230.2
147.5°	735.7	787.6	905.7	1075.5	1166.3
150°	759.8	807.0	910.6	1051.0	1127.7
152.5°	783.9	826.4	910.6	1031.4	1093.9
155°	820.1	849.6	916.6	1008.1	1055.3
157.5°	849.1	877.4	923.8	993.4	1027.6
160°	868.4	891.9	928.7	983.6	1013.1
162.5°	882.8	906.4	933.5	978.6	998.6
165°	910.6	922.4	940.7	965.2	982.9
167.5°	926.2	936.9	946.8	959.1	969.7
170°	940.7	946.6	946.8	958.9	964.8
172.5°	945.5	956.2	951.6	954.1	960.0
175°	958.8	964.7	958.8	952.6	946.8
177.5°	958.8	963.5	958.8	958.7	954.0
180°	958.8	958.8	958.8	958.8	958.8

(END OF REPORT)