

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: P644260

Luminaire Tested: CRQ4DIP-SR4F0-125D125U840-FLLOOB-1DUDD-WW

Issue Date: 2/20/2023



Test Information

Test Method: LM-79-2019
Report Number: P644260
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-SR4F0-125D125U840-FLLOOB-1DUDD-WW
Description: NEO-RAY CIRQUE SUSPENDED LED LUMINAIRE
DOWNLIGHT - CURVED FROSTED LENS - 1250 LUMENS PER FOOT
UPLIGHT - BATWING OPTIC - 1250 LUMENS PER FOOT
Light Source: 4000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

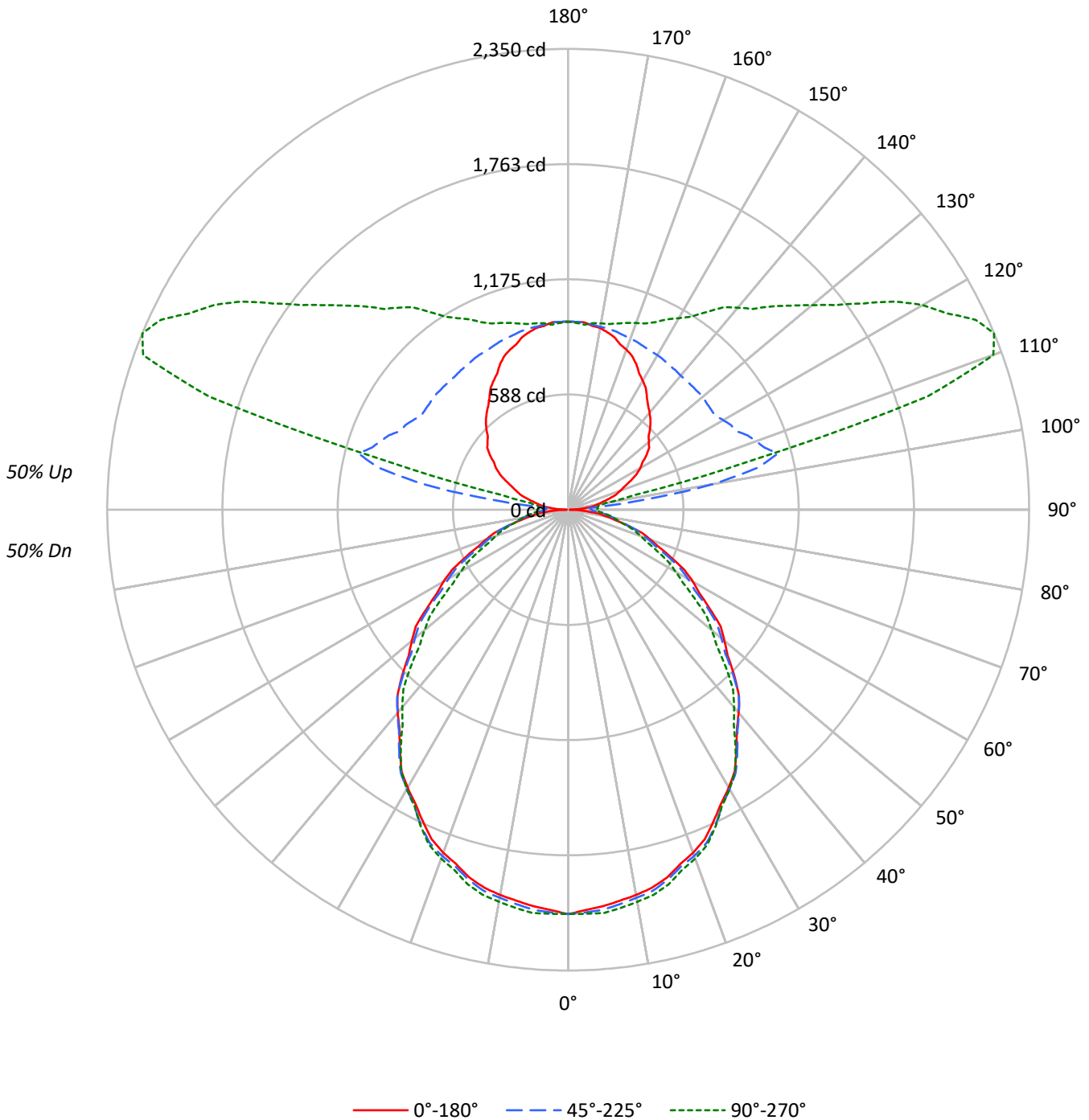
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 10468.6 lumens
Efficiency: N/A
Efficacy: 133.9 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): 78.2
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	50	30	10	0	
RCR																						
0	107	107	107	107	99	99	99	99	83	83	83	69	69	69	56	56	56	50				
1	98	93	89	86	90	86	83	80	73	70	68	60	59	57	49	48	47	42				
2	89	81	75	70	82	75	70	65	64	60	56	53	50	48	43	41	40	35				
3	81	72	64	58	75	66	60	55	56	51	47	47	44	41	39	36	34	30				
4	74	63	56	50	68	59	52	46	50	45	41	42	38	35	34	32	29	26				
5	68	57	48	42	63	53	45	40	45	39	35	38	34	30	31	28	26	22				
6	63	51	43	37	58	47	40	35	40	35	31	34	30	27	28	25	23	20				
7	58	46	38	32	54	43	36	31	37	31	27	31	27	24	26	23	20	17				
8	54	42	34	29	50	39	32	27	34	28	24	29	24	21	24	20	18	16				
9	50	38	31	26	46	36	29	24	31	25	22	26	22	19	22	19	16	14				
10	47	35	28	23	43	33	26	22	28	23	19	24	20	17	20	17	15	13				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	33293	33293	33293
5°	32663	29395	28483
10°	32234	26154	24605
15°	31762	23421	21521
20°	31034	21011	18824
25°	30067	18762	16404
30°	29115	16578	14238
35°	27826	14581	12221
40°	26622	12765	10360
45°	25229	10971	8646
50°	23756	9292	7092
55°	22200	7819	5719
60°	20710	6408	4572
65°	18880	5110	3618
70°	17117	4004	2858
75°	14965	3076	2254
80°	12502	2287	1755
85°	9118	1664	1334

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 25229 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	194.6	1.9
10°-20°	552.3	5.3
20°-30°	815.3	7.8
30°-40°	937.4	9.0
40°-50°	909.3	8.7
50°-60°	761.2	7.3
60°-70°	548.4	5.2
70°-80°	335.1	3.2
80°-90°	164.9	1.6
90°-100°	182.3	1.7
100°-110°	863.4	8.2
110°-120°	1148.6	11.0
120°-130°	931.6	8.9
130°-140°	747.0	7.1
140°-150°	588.6	5.6
150°-160°	430.4	4.1
160°-170°	267.3	2.6
170°-180°	91.2	0.9
0°-30°	1562.2	14.9
0°-40°	2499.6	23.9
0°-60°	4170.0	39.8
0°-90°	5218.4	49.8
90°-120°	2194.3	21.0
90°-150°	4461.4	42.6
90°-180°	5250.0	50.2
0°-180°	10468.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2062	2062	2062	2062	2062	
5°	2030	2067	2047	2051	2065	193
15°	1943	1971	1954	1963	1978	546
25°	1753	1782	1777	1768	1780	808
35°	1494	1517	1503	1488	1488	936
45°	1197	1208	1188	1153	1136	923
55°	882	894	862	809	783	791
65°	582	585	556	515	501	579
75°	314	314	320	312	306	336
85°	96	116	160	172	172	101
90°	9	63	117	140	143	13
95°	77	116	109	136	151	79
105°	216	299	1106	1421	955	228
115°	352	411	946	1961	2291	349
125°	488	547	889	1550	1833	433
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°	2062.0	2062.0	2062.0	2062.0	2062.0
2.5°	2043.4	2073.0	2055.0	2059.7	2062.0
5°	2030.0	2067.0	2047.4	2050.7	2064.9
7.5°	2011.3	2045.5	2028.2	2032.1	2048.6
10°	1995.0	2029.2	2009.6	2015.7	2030.0
12.5°	1974.0	2005.9	1990.9	1997.1	2011.3
15°	1942.6	1971.1	1954.2	1963.3	1977.5
17.5°	1896.0	1926.8	1908.8	1913.8	1928.0
20°	1861.0	1889.5	1878.5	1878.8	1893.1
22.5°	1819.1	1849.9	1841.2	1834.6	1851.1
25°	1753.3	1781.8	1776.6	1768.1	1779.5
27.5°	1688.0	1709.1	1699.1	1690.6	1699.1
30°	1636.8	1662.4	1645.5	1637.0	1645.5
32.5°	1580.9	1606.5	1589.6	1578.6	1582.6
35°	1494.1	1516.9	1502.8	1488.3	1488.3
37.5°	1411.9	1426.8	1417.2	1392.6	1386.3
40°	1351.4	1368.5	1354.3	1325.0	1316.4
42.5°	1288.5	1305.5	1289.0	1257.3	1244.2
45°	1197.0	1208.4	1188.3	1152.9	1135.9
47.5°	1102.6	1114.6	1086.9	1048.0	1027.5
50°	1039.7	1054.0	1019.4	978.1	955.3
52.5°	979.2	988.8	956.4	908.2	887.7
55°	882.5	893.9	862.1	809.1	783.4
57.5°	792.2	803.0	765.4	714.8	694.9
60°	733.9	742.5	704.8	651.9	632.0
62.5°	668.7	677.2	641.9	596.0	576.1
65°	582.5	585.3	556.3	515.2	500.9
67.5°	501.5	501.5	477.1	446.5	435.1
70°	445.6	445.6	428.1	404.6	393.2
72.5°	394.3	392.1	381.5	365.0	355.9
75°	314.5	314.5	320.4	311.5	305.8
77.5°	244.6	240.1	265.0	263.8	261.0
80°	198.0	198.0	230.1	235.8	233.0
82.5°	156.1	160.7	202.1	210.2	207.4
85°	96.1	116.0	160.2	171.8	171.8
87.5°	43.7	79.6	128.2	144.6	145.2
90°	8.7	63.0	116.9	140.5	143.3
92.5°	32.5	64.1	112.7	141.3	151.1
95°	77.4	115.8	109.4	136.2	150.8
97.5°	120.6	189.0	398.8	165.8	155.1
100°	149.5	229.8	746.5	259.1	194.0
102.5°	176.1	261.2	988.1	593.0	346.4
105°	216.1	299.2	1106.0	1420.7	954.7
107.5°	256.0	314.9	1050.2	2045.7	1920.0
110°	282.6	339.1	1018.9	2144.0	2306.1



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	311.5	368.1	990.0	2079.1	2349.6
115°	352.1	411.4	946.5	1961.1	2291.3
117.5°	393.2	454.8	935.1	1831.2	2170.8
120°	424.6	483.8	913.5	1732.7	2086.5
122.5°	448.7	510.3	889.4	1650.0	1975.5
125°	488.0	547.2	889.4	1550.2	1833.2
127.5°	519.5	583.3	890.6	1434.3	1713.8
130°	536.5	607.2	895.4	1356.8	1622.1
132.5°	555.9	626.7	893.1	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)