

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: P644925

Luminaire Tested: OMN4DIP-SR4F0-50D150U935-FLLOOB-1DUDD-WW

Issue Date: 2/16/2023



**Test Information**

Test Method: LM-79-2019  
Report Number: P644925  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2203-563-26, G2-2206-689-19)  
Test Lab: INNOVATION CENTER  
Issue Date: 2/16/2023  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: OMN4DIP-SR4F0-50D150U935-FLLOOB-1DUDD-WW  
Description: NEO-RAY CIRQUE SUSPENDED LED LUMINAIRE  
DOWNLIGHT - FLAT FROSTED LENS - 500 LUMENS PER FOOT  
UPLIGHT - BATWING OPTIC - 1500 LUMENS PER FOOT  
Light Source: 3500K CCT, 90 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

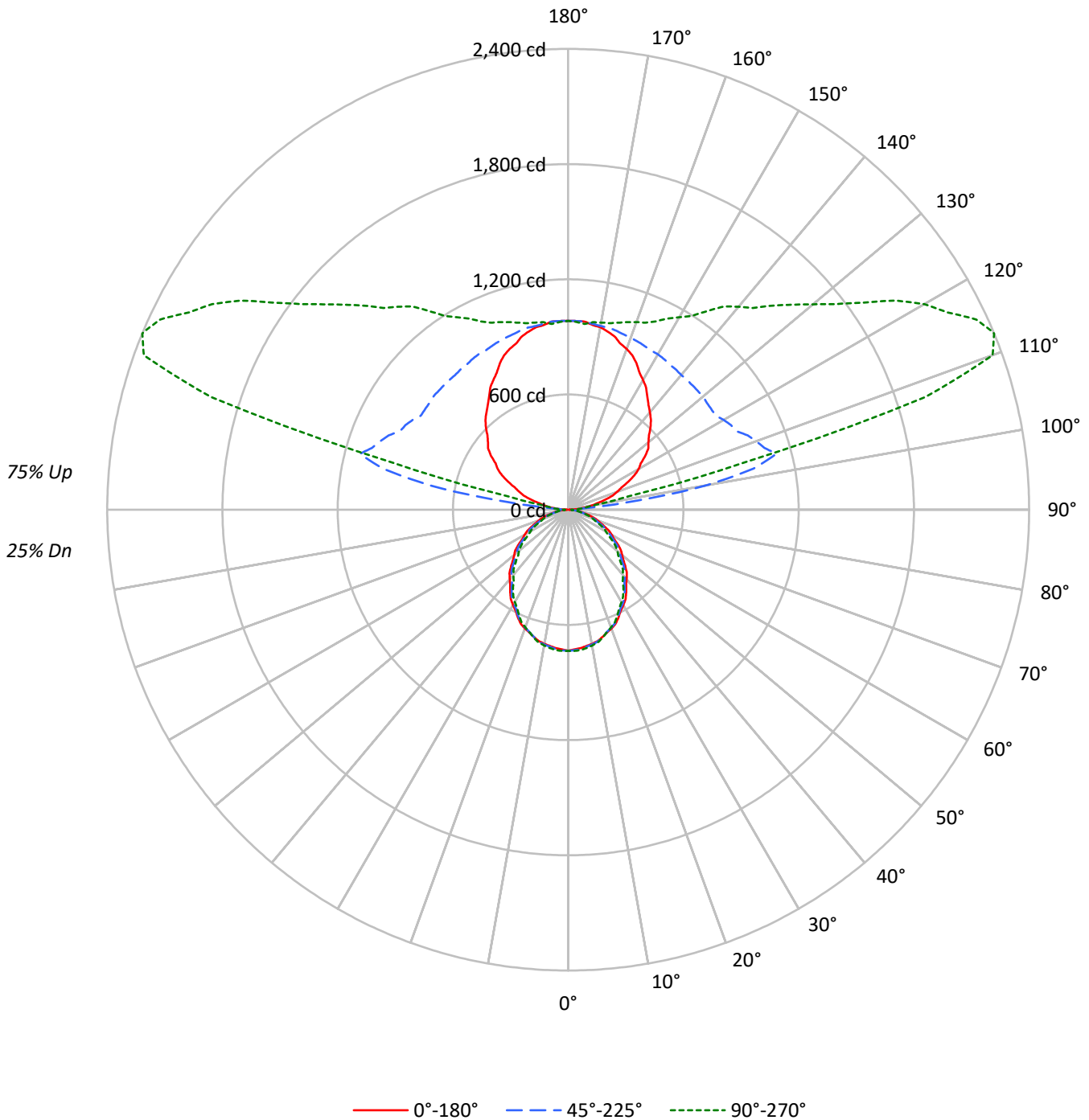
Lumens per Lamp: N/A  
Luminaire Lumens: 7078.6 lumens  
Efficiency: N/A  
Efficacy: 112.5 lumens/watt  
Spacing Criteria (0/90/45): 1.17 / 1.13 / 1.26  
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')  
CIE Type: Semi-Indirect

Input Watts (W): 62.9  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): 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	101	101	101	101	90	90	90	90	70	70	70	51	51	51	33	33	33	25				
1	92	88	84	81	82	79	76	73	61	59	57	45	43	42	29	29	28	21				
2	84	77	71	66	75	69	64	60	53	50	47	39	37	35	26	25	24	18				
3	77	68	61	55	68	60	55	50	47	43	40	35	32	30	23	22	20	15				
4	70	60	52	46	62	53	47	42	42	37	34	31	28	25	21	19	17	13				
5	64	53	45	40	57	48	41	36	37	33	29	28	24	22	19	17	15	11				
6	59	47	40	34	52	43	36	31	33	29	25	25	22	19	17	15	13	10				
7	54	43	35	30	48	38	32	27	30	25	22	23	19	17	15	13	12	9				
8	50	39	31	26	45	35	28	24	27	23	19	21	17	15	14	12	11	8				
9	47	35	28	23	42	32	25	21	25	20	17	19	16	13	13	11	10	7				
10	44	32	25	21	39	29	23	19	23	19	15	17	14	12	12	10	9	7				

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	11867	11867	11867
5°	11734	11815	11896
10°	11640	11690	11772
15°	11483	11483	11550
20°	11323	11237	11203
25°	11027	10938	10796
30°	10701	10552	10347
35°	10368	10111	9875
40°	9969	9674	9337
45°	9636	9270	8814
50°	9218	8817	8364
55°	8867	8417	7910
60°	8460	8008	7330
65°	8023	7450	6877
70°	7600	6892	6420
75°	7112	6301	5989
80°	6509	5765	5486
85°	6113	5372	5002

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 9636 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	69.1	1.0
10°-20°	194.0	2.7
20°-30°	282.1	4.0
30°-40°	320.9	4.5
40°-50°	312.9	4.4
50°-60°	267.1	3.8
60°-70°	194.1	2.7
70°-80°	109.8	1.6
80°-90°	36.0	0.5
90°-100°	125.2	1.8
100°-110°	864.1	12.2
110°-120°	1171.4	16.5
120°-130°	953.0	13.5
130°-140°	765.9	10.8
140°-150°	603.8	8.5
150°-160°	441.5	6.2
160°-170°	274.2	3.9
170°-180°	93.5	1.3
0°-30°	545.3	7.7
0°-40°	866.2	12.2
0°-60°	1446.2	20.4
0°-90°	1786.0	25.2
90°-120°	2160.7	30.5
90°-150°	4483.4	63.3
90°-180°	5293.0	74.8
0°-180°	7078.6	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	735	735	735	735	735	
5°	724	735	729	728	734	69
15°	687	696	687	686	691	194
25°	619	625	614	603	606	285
35°	526	528	513	501	501	328
45°	422	420	406	392	386	325
55°	315	314	299	285	281	281
65°	210	208	195	183	180	208
75°	114	110	101	97	96	121
85°	33	29	29	28	27	35
90°	4	11	18	24	24	6
95°	58	96	52	59	70	61
105°	197	298	1122	1431	946	208
115°	343	415	966	2006	2344	341
125°	491	557	910	1590	1881	436
135°	606	673	916	1310	1503	467
145°	718	778	922	1141	1262	451
155°	841	872	940	1034	1083	386
165°	934	946	965	990	1008	262
175°	984	990	984	977	971	93
180°	984	984	984	984	984	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	735.0	735.0	735.0	735.0	735.0
2.5°	728.6	738.0	732.6	732.7	735.8
5°	724.0	734.8	729.0	728.1	734.0
7.5°	716.4	727.0	720.2	719.2	726.8
10°	710.0	719.8	713.0	711.2	718.0
12.5°	701.2	711.0	704.2	701.6	708.4
15°	687.0	695.8	687.0	686.1	691.0
17.5°	671.0	678.6	668.4	665.1	668.8
20°	659.0	665.8	654.0	649.1	652.0
22.5°	643.8	650.6	638.0	630.7	634.4
25°	619.0	624.9	614.0	603.1	606.0
27.5°	592.4	596.9	586.0	574.8	575.8
30°	574.0	576.9	566.0	554.0	555.0
32.5°	554.8	557.0	545.2	532.4	532.6
35°	526.0	528.0	513.0	501.0	501.0
37.5°	495.4	496.6	480.6	467.6	466.2
40°	473.0	475.0	459.0	445.9	443.0
42.5°	452.2	452.6	438.2	425.1	421.4
45°	422.0	420.0	406.0	391.9	386.0
47.5°	389.4	389.4	373.4	359.3	353.8
50°	367.0	367.0	351.0	336.9	333.0
52.5°	346.2	345.4	330.2	316.1	310.6
55°	315.0	314.0	299.0	284.9	281.0
57.5°	282.0	282.0	268.0	252.9	248.6
60°	262.0	262.0	248.0	232.9	227.0
62.5°	240.4	239.6	225.6	212.1	208.6
65°	210.0	208.0	195.0	182.9	180.0
67.5°	181.0	179.0	165.2	155.6	153.6
70°	161.0	159.0	146.0	138.0	136.0
72.5°	141.8	139.1	127.6	121.2	119.2
75°	114.0	110.1	101.0	97.0	96.0
77.5°	87.6	81.0	77.2	74.4	73.4
80°	70.0	64.1	62.0	60.0	59.0
82.5°	54.8	48.9	48.4	47.2	46.2
85°	33.0	29.1	29.0	28.0	27.0
87.5°	14.4	13.5	14.9	15.9	15.9
90°	4.0	11.0	18.4	23.6	23.6
92.5°	22.0	25.9	31.6	42.6	46.7
95°	57.5	95.9	52.5	58.9	70.0
97.5°	94.8	180.2	366.5	109.1	93.8
100°	124.5	224.4	732.0	215.9	143.3
102.5°	153.4	258.2	989.3	568.0	310.7
105°	196.8	297.6	1121.7	1431.3	946.5
107.5°	241.1	316.8	1071.0	2082.7	1949.9
110°	270.0	341.6	1041.3	2188.4	2350.7



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	299.7	371.3	1011.6	2126.6	2400.2
115°	343.2	414.8	966.0	2005.8	2344.5
117.5°	389.0	459.4	954.9	1876.1	2224.5
120°	423.7	489.2	935.1	1777.5	2140.4
122.5°	447.6	518.8	910.4	1692.7	2026.6
125°	490.7	557.2	910.4	1590.2	1880.6
127.5°	525.6	594.1	911.6	1471.4	1758.1
130°	545.4	618.0	916.5	1391.9	1664.1
132.5°	569.3	641.9	915.7	1356.1	1579.9
135°	606.2	672.8	915.5	1309.7	1503.2
137.5°	637.2	708.5	915.5	1258.3	1424.0
140°	661.9	728.5	915.5	1228.3	1379.5
142.5°	686.7	748.4	920.5	1193.4	1335.0
145°	717.6	778.1	921.7	1141.0	1262.0
147.5°	754.7	807.9	929.2	1103.2	1196.4
150°	779.5	827.8	934.1	1078.2	1156.8
152.5°	804.2	847.7	934.1	1058.0	1122.2
155°	841.3	871.6	940.3	1034.2	1082.6
157.5°	871.0	900.0	947.7	1019.0	1054.1
160°	890.8	915.0	952.7	1009.0	1039.3
162.5°	905.7	929.8	957.6	1003.9	1024.4
165°	934.1	946.2	965.0	990.2	1008.3
167.5°	950.2	961.1	971.2	983.8	994.7
170°	965.0	971.1	971.2	983.7	989.8
172.5°	970.0	980.9	976.2	978.8	984.8
175°	983.6	989.6	983.6	977.3	971.2
177.5°	983.6	988.4	983.6	983.5	978.6
180°	983.6	983.6	983.6	983.6	983.6

(END OF REPORT)