

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: P644565

Luminaire Tested: OMN4DIP-SR4F0-100D150U935-FLLOOB-1DUDD-WW

Issue Date: 2/16/2023



**Test Information**

Test Method: LM-79-2019  
Report Number: P644565  
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-SR4F0-100D150U935-FLLOOB-1DUDD-WW  
Description: NEO-RAY CIRQUE SUSPENDED LED LUMINAIRE  
DOWNLIGHT - FLAT FROSTED LENS - 1000 LUMENS PER FOOT  
UPLIGHT - BATWING OPTIC - 1500 LUMENS PER FOOT  
Light Source: 3500K CCT, 90 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

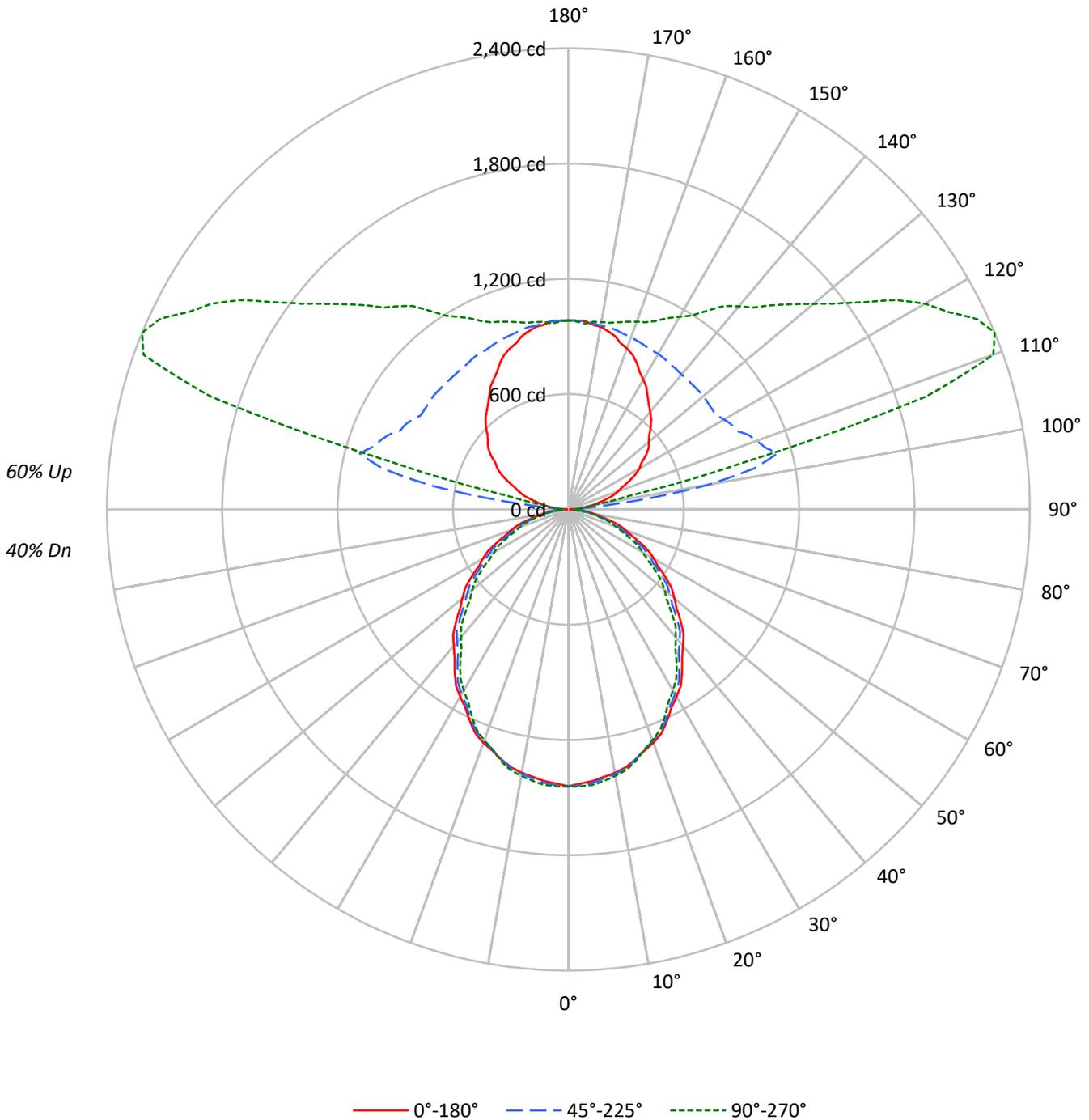
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 8800.6 lumens  
Efficiency: N/A  
Efficacy: 112.1 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): 78.5  
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									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	50	30	10	0														
RCR																																						
0	105	105	105	105	95	95	95	95	78	78	78	62	62	62	47	47	47	40																				
1	96	91	87	84	87	83	80	77	68	66	64	54	53	51	41	40	39	34																				
2	87	80	74	69	79	73	68	63	60	56	53	48	45	43	36	35	33	28																				
3	79	70	63	57	72	64	58	53	53	48	45	42	39	36	32	30	29	24																				
4	73	62	54	48	66	57	50	45	47	42	38	38	34	31	29	27	25	21																				
5	67	55	47	42	60	51	44	39	42	37	33	34	30	27	26	24	22	18																				
6	61	50	42	36	56	46	39	33	38	32	29	31	27	24	24	21	19	16																				
7	57	45	37	31	52	41	34	29	34	29	25	28	24	21	22	19	17	14																				
8	53	41	33	28	48	37	31	26	31	26	22	25	22	19	20	17	15	13																				
9	49	37	30	25	45	34	28	23	29	23	20	23	20	17	18	16	14	11																				
10	46	34	27	22	42	31	25	21	26	21	18	22	18	15	17	14	12	10																				

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

	0°	45°	90°
0°	23266	23266	23266
5°	23005	23164	23323
10°	22820	22917	23077
15°	22514	22514	22644
20°	22199	22031	21962
25°	21618	21444	21166
30°	20980	20687	20286
35°	20325	19823	19360
40°	19545	18967	18305
45°	18890	18176	17278
50°	18073	17284	16397
55°	17385	16501	15508
60°	16585	15700	14370
65°	15729	14606	13482
70°	14899	13511	12585
75°	13943	12352	11740
80°	12757	11306	10758
85°	11986	10541	9800

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 18890 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	135.5	1.5
10°-20°	380.4	4.3
20°-30°	553.1	6.3
30°-40°	629.1	7.1
40°-50°	613.4	7.0
50°-60°	523.6	5.9
60°-70°	380.5	4.3
70°-80°	215.2	2.4
80°-90°	68.5	0.8
90°-100°	129.3	1.5
100°-110°	866.4	9.8
110°-120°	1172.8	13.3
120°-130°	953.8	10.8
130°-140°	766.0	8.7
140°-150°	603.8	6.9
150°-160°	441.5	5.0
160°-170°	274.2	3.1
170°-180°	93.5	1.1
0°-30°	1069.0	12.1
0°-40°	1698.1	19.3
0°-60°	2835.1	32.2
0°-90°	3499.3	39.8
90°-120°	2168.5	24.6
90°-150°	4492.1	51.0
90°-180°	5301.0	60.2
0°-180°	8800.6	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1441	1441	1441	1441	1441	
5°	1419	1440	1429	1428	1439	135
15°	1347	1364	1347	1345	1355	380
25°	1214	1225	1204	1182	1188	558
35°	1031	1035	1006	982	982	644
45°	827	824	796	768	757	637
55°	618	616	586	559	551	551
65°	412	408	382	359	353	409
75°	224	216	198	190	188	237
85°	65	57	57	55	53	69
90°	8	16	24	28	28	10
95°	65	100	55	62	72	67
105°	202	301	1124	1432	946	213
115°	346	417	967	2006	2344	344
125°	493	559	911	1590	1881	437
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	



TEST NUMBER: P644565

CATALOG NUMBER: OMN4DIP-SR4F0-100D150U935-FLLOOB-1DUDD-WW

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1441.0	1441.0	1441.0	1441.0	1441.0
2.5°	1428.4	1446.8	1436.3	1436.4	1442.5
5°	1419.4	1440.5	1429.2	1427.5	1439.0
7.5°	1404.5	1425.2	1411.9	1409.9	1424.9
10°	1391.9	1411.1	1397.8	1394.2	1407.6
12.5°	1374.7	1393.9	1380.6	1375.4	1388.8
15°	1346.9	1364.1	1346.9	1345.1	1354.7
17.5°	1315.5	1330.4	1310.4	1303.9	1311.2
20°	1292.0	1305.4	1282.2	1272.5	1278.2
22.5°	1262.2	1275.6	1250.8	1236.4	1243.7
25°	1213.5	1225.0	1203.7	1182.3	1188.1
27.5°	1161.4	1170.2	1148.8	1126.9	1128.8
30°	1125.3	1131.1	1109.6	1086.2	1088.1
32.5°	1087.7	1091.9	1068.9	1043.8	1044.2
35°	1031.2	1035.0	1005.7	982.2	982.2
37.5°	971.2	973.5	942.2	916.7	914.0
40°	927.3	931.1	899.9	874.2	868.5
42.5°	886.5	887.3	859.1	833.4	826.1
45°	827.3	823.5	796.0	768.2	756.7
47.5°	763.4	763.4	732.0	704.4	693.6
50°	719.5	719.5	688.1	660.5	652.8
52.5°	678.7	677.2	647.4	619.7	608.9
55°	617.6	615.6	586.2	558.6	550.9
57.5°	552.9	552.9	525.4	495.8	487.4
60°	513.6	513.6	486.2	456.5	445.0
62.5°	471.3	469.8	442.3	415.9	409.0
65°	411.7	407.9	382.3	358.6	352.9
67.5°	354.8	351.0	323.9	305.0	301.1
70°	315.6	311.8	286.2	270.5	266.6
72.5°	278.0	272.6	250.2	237.5	233.7
75°	223.5	215.8	198.0	190.1	188.2
77.5°	171.7	158.7	151.3	145.8	143.9
80°	137.2	125.7	121.6	117.6	115.7
82.5°	107.4	95.9	94.9	92.5	90.6
85°	64.7	57.0	56.9	54.9	52.9
87.5°	28.2	25.2	26.8	27.6	27.6
90°	7.8	15.8	24.1	28.4	28.4
92.5°	29.0	30.8	35.8	46.7	50.0
95°	65.2	99.8	55.4	61.8	72.0
97.5°	101.6	184.1	369.2	110.8	94.8
100°	131.3	228.3	733.9	216.8	144.2
102.5°	159.4	261.3	991.2	568.9	310.9
105°	201.6	300.6	1123.6	1432.3	946.5
107.5°	245.7	319.7	1072.9	2083.6	1949.9
110°	273.8	344.5	1043.2	2189.3	2350.7



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	303.5	374.2	1013.5	2127.5	2400.2
115°	346.1	416.8	967.0	2005.8	2344.5
117.5°	391.9	461.4	955.9	1876.1	2224.5
120°	426.5	491.2	936.1	1777.5	2140.4
122.5°	449.7	520.7	911.3	1692.7	2026.6
125°	492.6	559.2	911.3	1590.2	1880.6
127.5°	526.5	595.8	912.6	1471.4	1758.1
130°	546.3	618.9	917.5	1391.9	1664.1
132.5°	569.5	642.1	915.9	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)