

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: P644559

Luminaire Tested: OMN4DIP-SR4F0-100D150U930-FLLOOB-1DUDD-WW

Issue Date: 2/16/2023



**Test Information**

Test Method: LM-79-2019  
Report Number: P644559  
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-SR4F0-100D150U930-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: 3000K CCT, 90 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

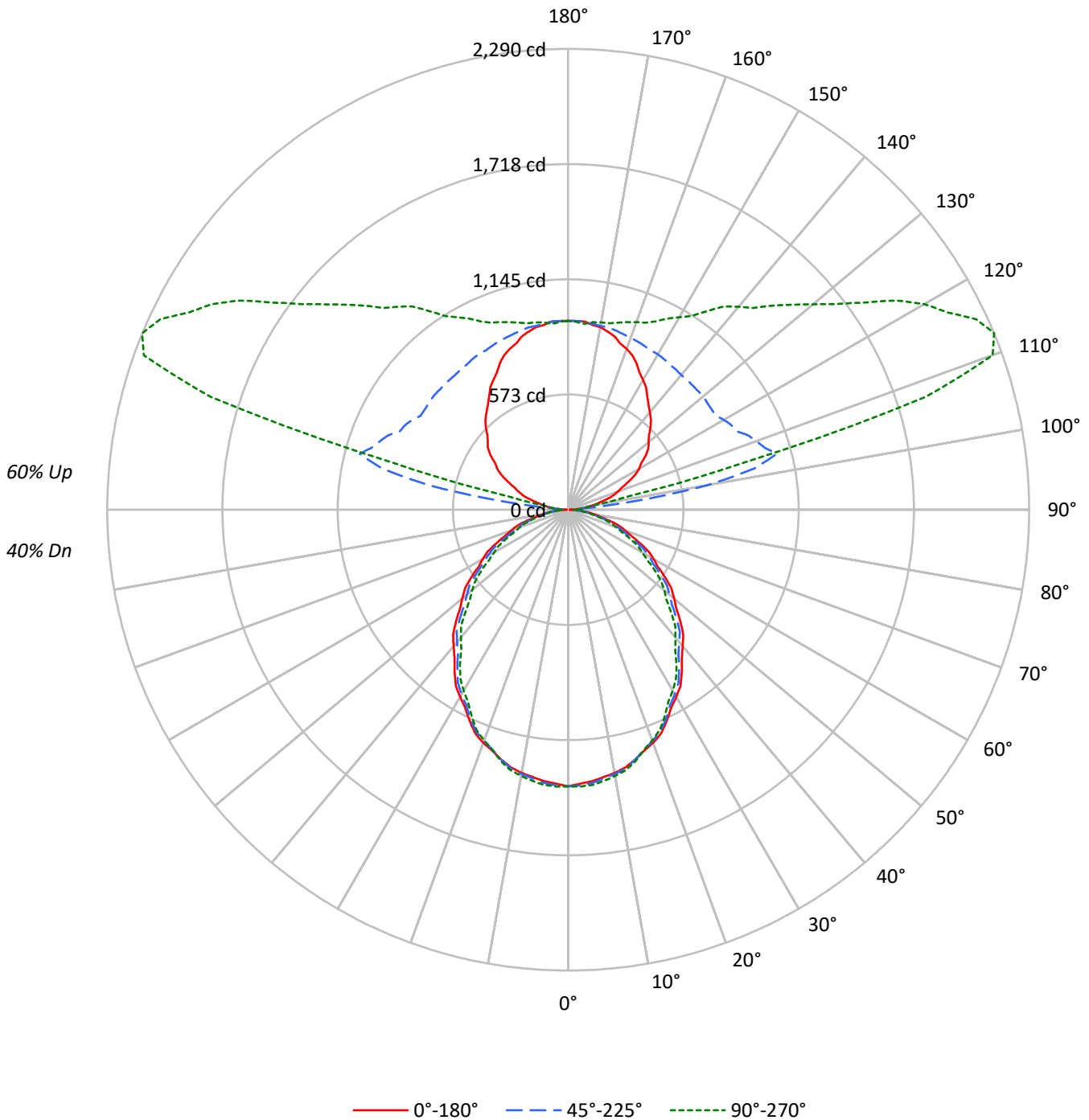
Lumens per Lamp: N/A  
Luminaire Lumens: 8397.6 lumens  
Efficiency: N/A  
Efficacy: 107.0 lumens/watt  
Spacing Criteria (0/90/45): 1.17 / 1.13 / 1.26  
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')  
CIE Type: Semi-Indirect

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

TEST NUMBER: P644559

CATALOG NUMBER: OMN4DIP-SR4F0-100D150U930-FLLOOB-1DUDD-WW

### Luminous Intensity Polar Plot





TEST NUMBER: P644559

CATALOG NUMBER: OMN4DIP-SR4F0-100D150U930-FLLOOB-1DUDD-WW

**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	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°	22201	22201	22201
5°	21951	22102	22255
10°	21776	21868	22022
15°	21483	21483	21608
20°	21182	21021	20957
25°	20630	20462	20197
30°	20020	19740	19356
35°	19395	18916	18473
40°	18649	18099	17466
45°	18025	17342	16488
50°	17246	16493	15646
55°	16588	15744	14798
60°	15826	14980	13714
65°	15007	13937	12863
70°	14219	12892	12010
75°	13306	11784	11204
80°	12171	10786	10265
85°	11430	10059	9355

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 18025 cd/sqm



TEST NUMBER: P644559

CATALOG NUMBER: OMN4DIP-SR4F0-100D150U930-FLLOOB-1DUDD-WW

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	129.3	1.5
10°-20°	363.0	4.3
20°-30°	527.7	6.3
30°-40°	600.3	7.1
40°-50°	585.3	7.0
50°-60°	499.6	5.9
60°-70°	363.1	4.3
70°-80°	205.3	2.4
80°-90°	65.3	0.8
90°-100°	123.4	1.5
100°-110°	826.7	9.8
110°-120°	1119.1	13.3
120°-130°	910.2	10.8
130°-140°	730.9	8.7
140°-150°	576.1	6.9
150°-160°	421.3	5.0
160°-170°	261.7	3.1
170°-180°	89.2	1.1
0°-30°	1020.0	12.1
0°-40°	1620.4	19.3
0°-60°	2705.3	32.2
0°-90°	3339.0	39.8
90°-120°	2069.2	24.6
90°-150°	4286.4	51.0
90°-180°	5059.0	60.2
0°-180°	8397.6	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1375	1375	1375	1375	1375	
5°	1354	1374	1364	1362	1373	128
15°	1285	1302	1285	1284	1293	362
25°	1158	1169	1149	1128	1134	533
35°	984	988	960	937	937	614
45°	789	786	760	733	722	608
55°	589	587	559	533	526	526
65°	393	389	365	342	337	390
75°	213	206	189	181	180	226
85°	62	54	54	52	50	66
90°	8	15	23	27	27	10
95°	62	95	53	59	69	64
105°	192	287	1072	1367	903	204
115°	330	398	923	1914	2237	329
125°	470	534	870	1517	1794	417
135°	578	642	874	1250	1434	445
145°	685	742	880	1089	1204	430
155°	803	832	897	987	1033	369
165°	891	903	921	945	962	250
175°	939	944	939	932	927	89
180°	939	939	939	939	939	

TEST NUMBER: P644559

CATALOG NUMBER: OMN4DIP-SR4F0-100D150U930-FLLOOB-1DUDD-WW

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1375.0	1375.0	1375.0	1375.0	1375.0
2.5°	1363.0	1380.6	1370.5	1370.6	1376.5
5°	1354.4	1374.5	1363.7	1362.1	1373.1
7.5°	1340.2	1359.9	1347.3	1345.4	1359.6
10°	1328.2	1346.5	1333.8	1330.4	1343.2
12.5°	1311.7	1330.0	1317.4	1312.4	1325.2
15°	1285.2	1301.6	1285.2	1283.5	1292.7
17.5°	1255.2	1269.5	1250.4	1244.2	1251.1
20°	1232.8	1245.6	1223.4	1214.2	1219.7
22.5°	1204.4	1217.2	1193.5	1179.8	1186.8
25°	1158.0	1168.9	1148.6	1128.2	1133.7
27.5°	1108.2	1116.6	1096.2	1075.3	1077.2
30°	1073.8	1079.3	1058.8	1036.4	1038.2
32.5°	1037.9	1041.9	1019.9	996.0	996.3
35°	984.0	987.7	959.7	937.2	937.2
37.5°	926.7	928.9	899.1	874.7	872.1
40°	884.8	888.5	858.7	834.2	828.7
42.5°	845.9	846.7	819.7	795.3	788.3
45°	789.4	785.8	759.5	733.1	722.1
47.5°	728.5	728.5	698.5	672.1	661.9
50°	686.6	686.6	656.6	630.3	622.9
52.5°	647.6	646.2	617.7	591.3	581.0
55°	589.3	587.4	559.3	533.0	525.7
57.5°	527.5	527.5	501.4	473.1	465.1
60°	490.1	490.1	463.9	435.6	424.7
62.5°	449.7	448.3	422.0	396.8	390.2
65°	392.8	389.2	364.8	342.2	336.7
67.5°	338.6	334.9	309.0	291.0	287.3
70°	301.2	297.5	273.1	258.1	254.4
72.5°	265.3	260.1	238.7	226.6	223.0
75°	213.3	205.9	188.9	181.4	179.6
77.5°	163.9	151.4	144.4	139.1	137.3
80°	130.9	120.0	116.0	112.2	110.4
82.5°	102.5	91.5	90.5	88.3	86.4
85°	61.7	54.4	54.3	52.3	50.5
87.5°	26.9	24.1	25.6	26.4	26.4
90°	7.5	15.1	23.0	27.1	27.1
92.5°	27.6	29.4	34.2	44.5	47.7
95°	62.2	95.3	52.8	59.0	68.7
97.5°	96.9	175.7	352.3	105.7	90.4
100°	125.2	217.9	700.3	206.9	137.6
102.5°	152.1	249.3	945.8	542.9	296.7
105°	192.3	286.8	1072.2	1366.7	903.1
107.5°	234.5	305.1	1023.8	1988.2	1860.6
110°	261.3	328.7	995.4	2089.1	2243.1



TEST NUMBER: P644559

CATALOG NUMBER: OMN4DIP-SR4F0-100D150U930-FLLOOB-1DUDD-WW

**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	289.6	357.1	967.1	2030.1	2290.3
115°	330.3	397.7	922.7	1914.0	2237.2
117.5°	374.0	440.2	912.1	1790.2	2122.7
120°	407.0	468.7	893.2	1696.1	2042.4
122.5°	429.1	496.9	869.6	1615.2	1933.8
125°	470.1	533.6	869.6	1517.4	1794.5
127.5°	502.4	568.5	870.8	1404.0	1677.6
130°	521.3	590.6	875.5	1328.1	1587.9
132.5°	543.4	612.7	874.0	1294.0	1507.6
135°	578.5	642.0	873.6	1249.7	1434.4
137.5°	608.0	676.1	873.6	1200.7	1358.8
140°	631.6	695.1	873.6	1172.0	1316.3
142.5°	655.2	714.1	878.3	1138.8	1273.8
145°	684.7	742.4	879.5	1088.8	1204.2
147.5°	720.1	770.9	886.6	1052.7	1141.6
150°	743.8	789.9	891.3	1028.8	1103.8
152.5°	767.4	808.9	891.3	1009.6	1070.8
155°	802.8	831.6	897.2	986.8	1033.0
157.5°	831.1	858.8	904.3	972.4	1005.8
160°	850.0	873.1	909.0	962.8	991.7
162.5°	864.2	887.3	913.8	957.9	977.5
165°	891.3	902.9	920.8	944.9	962.2
167.5°	906.7	917.1	926.7	938.8	949.2
170°	920.8	926.6	926.7	938.7	944.5
172.5°	925.6	936.0	931.5	934.0	939.7
175°	938.6	944.3	938.6	932.5	926.7
177.5°	938.6	943.2	938.6	938.5	933.8
180°	938.6	938.6	938.6	938.6	938.6

(END OF REPORT)