

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: P644554

Luminaire Tested: OMN4DIP-SR4F0-100D150U840-FLLOOB-1DUDD-WW

Issue Date: 2/16/2023



Test Information

Test Method: LM-79-2019
Report Number: P644554
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-SR4F0-100D150U840-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: 4000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

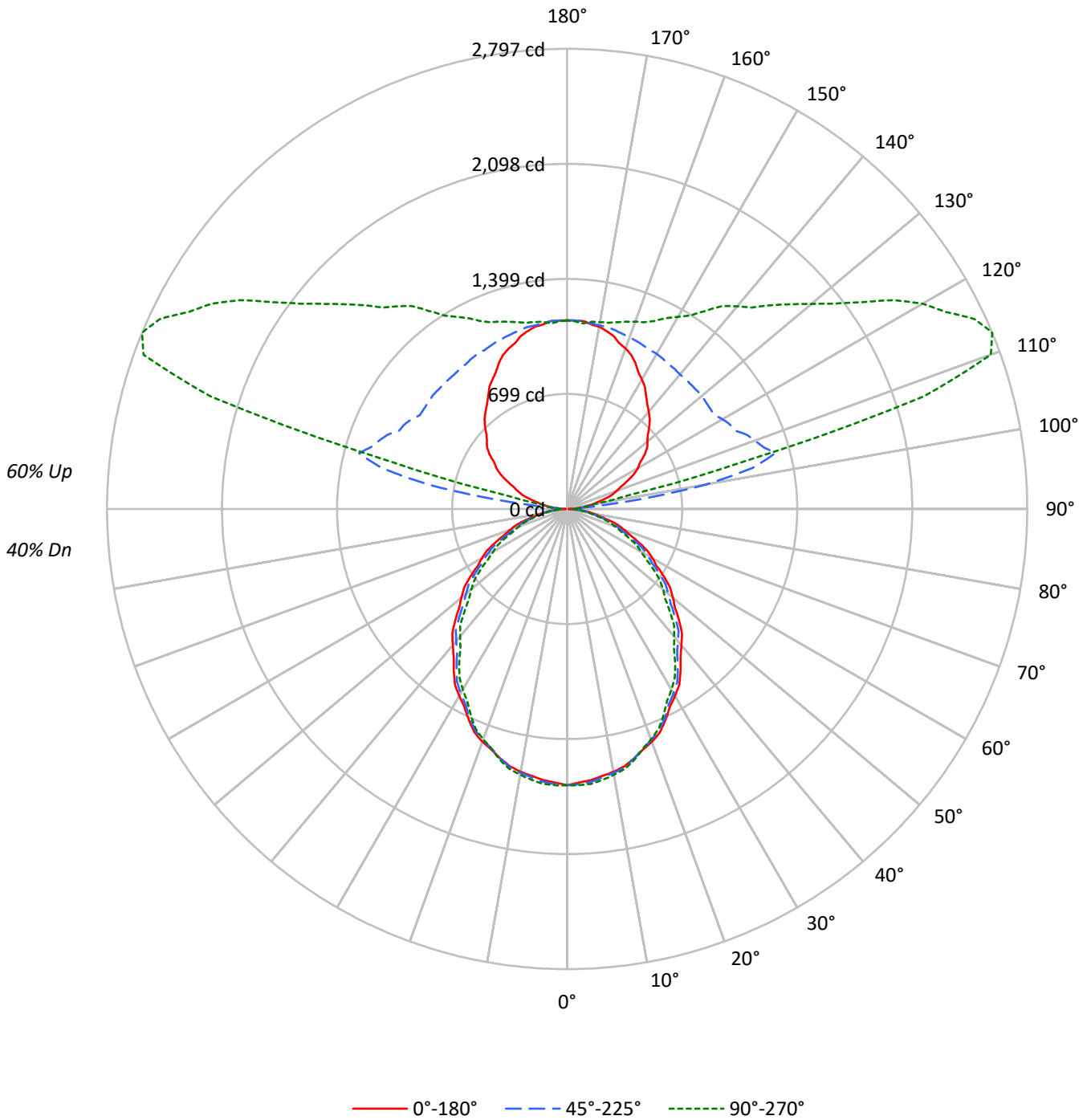
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 10256.2 lumens
Efficiency: N/A
Efficacy: 130.7 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 (A_{in}): 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	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°	27114	27114	27114
5°	26810	26995	27180
10°	26596	26707	26896
15°	26236	26236	26390
20°	25871	25673	25596
25°	25196	24991	24667
30°	24449	24110	23640
35°	23688	23103	22563
40°	22778	22103	21332
45°	22016	21181	20137
50°	21062	20142	19110
55°	20259	19229	18072
60°	19330	18296	16746
65°	18330	17020	15713
70°	17363	15748	14667
75°	16251	14398	13681
80°	14868	13175	12534
85°	13968	12282	11430

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 22016 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	158.0	1.5
10°-20°	443.3	4.3
20°-30°	644.6	6.3
30°-40°	733.2	7.1
40°-50°	714.9	7.0
50°-60°	610.2	5.9
60°-70°	443.4	4.3
70°-80°	250.8	2.4
80°-90°	79.8	0.8
90°-100°	150.7	1.5
100°-110°	1009.7	9.8
110°-120°	1366.7	13.3
120°-130°	1111.6	10.8
130°-140°	892.7	8.7
140°-150°	703.6	6.9
150°-160°	514.5	5.0
160°-170°	319.6	3.1
170°-180°	109.0	1.1
0°-30°	1245.8	12.1
0°-40°	1979.0	19.3
0°-60°	3304.1	32.2
0°-90°	4078.1	39.8
90°-120°	2527.2	24.6
90°-150°	5235.1	51.0
90°-180°	6178.0	60.2
0°-180°	10256.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1679	1679	1679	1679	1679	
5°	1654	1679	1666	1664	1677	157
15°	1570	1590	1570	1568	1579	442
25°	1414	1428	1403	1378	1385	651
35°	1202	1206	1172	1145	1145	750
45°	964	960	928	895	882	742
55°	720	718	683	651	642	642
65°	480	475	446	418	411	476
75°	260	252	231	222	219	276
85°	75	66	66	64	62	81
90°	9	18	28	33	33	12
95°	76	116	64	72	84	78
105°	235	350	1310	1669	1103	249
115°	403	486	1127	2338	2732	401
125°	574	652	1062	1853	2192	510
135°	706	784	1067	1526	1752	544
145°	836	907	1074	1330	1471	525
155°	980	1016	1096	1205	1262	450
165°	1089	1103	1125	1154	1175	306
175°	1146	1153	1146	1139	1132	108
180°	1146	1146	1146	1146	1146	

TEST NUMBER: P644554

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1679.3	1679.3	1679.3	1679.3	1679.3
2.5°	1664.7	1686.1	1673.8	1674.0	1681.1
5°	1654.2	1678.7	1665.6	1663.6	1677.0
7.5°	1636.8	1660.9	1645.5	1643.1	1660.6
10°	1622.2	1644.5	1629.0	1624.8	1640.5
12.5°	1602.1	1624.4	1608.9	1602.9	1618.5
15°	1569.6	1589.7	1569.6	1567.6	1578.8
17.5°	1533.1	1550.5	1527.1	1519.6	1528.0
20°	1505.7	1521.3	1494.2	1483.0	1489.7
22.5°	1470.9	1486.6	1457.7	1441.0	1449.4
25°	1414.3	1427.7	1402.8	1377.9	1384.6
27.5°	1353.5	1363.8	1338.9	1313.3	1315.6
30°	1311.4	1318.1	1293.2	1265.8	1268.0
32.5°	1267.6	1272.5	1245.6	1216.4	1216.9
35°	1201.8	1206.2	1172.1	1144.7	1144.7
37.5°	1131.9	1134.5	1098.1	1068.3	1065.2
40°	1080.7	1085.2	1048.7	1018.8	1012.1
42.5°	1033.2	1034.1	1001.2	971.3	962.8
45°	964.2	959.7	927.6	895.3	881.9
47.5°	889.7	889.7	853.1	820.9	808.3
50°	838.5	838.5	801.9	769.8	760.8
52.5°	791.0	789.2	754.4	722.2	709.6
55°	719.7	717.5	683.1	651.0	642.0
57.5°	644.3	644.3	612.3	577.8	568.0
60°	598.6	598.6	566.6	532.0	518.6
62.5°	549.3	547.5	515.4	484.6	476.6
65°	479.8	475.3	445.5	418.0	411.3
67.5°	413.5	409.1	377.4	355.4	350.9
70°	367.8	363.4	333.6	315.2	310.7
72.5°	324.0	317.7	291.5	276.8	272.3
75°	260.5	251.5	230.8	221.6	219.3
77.5°	200.1	185.0	176.4	169.9	167.7
80°	159.9	146.5	141.7	137.0	134.8
82.5°	125.2	111.8	110.6	107.8	105.6
85°	75.4	66.5	66.3	63.9	61.7
87.5°	32.9	29.4	31.2	32.2	32.2
90°	9.1	18.4	28.1	33.1	33.1
92.5°	33.8	35.9	41.8	54.4	58.2
95°	76.0	116.4	64.5	72.0	83.9
97.5°	118.4	214.6	430.3	129.1	110.4
100°	153.0	266.1	855.3	252.7	168.1
102.5°	185.7	304.5	1155.2	663.0	362.4
105°	234.9	350.3	1309.5	1669.2	1103.0
107.5°	286.4	372.6	1250.3	2428.3	2272.4
110°	319.1	401.5	1215.7	2551.5	2739.5



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	353.7	436.1	1181.1	2479.4	2797.2
115°	403.4	485.7	1126.9	2337.6	2732.3
117.5°	456.7	537.7	1114.0	2186.4	2592.5
120°	497.1	572.4	1090.9	2071.5	2494.4
122.5°	524.1	606.8	1062.1	1972.7	2361.8
125°	574.1	651.6	1062.1	1853.3	2191.6
127.5°	613.6	694.4	1063.5	1714.8	2048.9
130°	636.7	721.3	1069.3	1622.1	1939.3
132.5°	663.7	748.3	1067.4	1580.4	1841.3
135°	706.5	784.1	1067.0	1526.3	1751.9
137.5°	742.6	825.7	1067.0	1466.4	1659.6
140°	771.4	848.9	1067.0	1431.5	1607.7
142.5°	800.2	872.1	1072.7	1390.8	1555.8
145°	836.3	906.8	1074.2	1329.7	1470.7
147.5°	879.5	941.6	1082.8	1285.7	1394.3
150°	908.4	964.8	1088.6	1256.5	1348.1
152.5°	937.2	988.0	1088.6	1233.1	1307.8
155°	980.5	1015.7	1095.8	1205.2	1261.6
157.5°	1015.1	1048.9	1104.5	1187.6	1228.5
160°	1038.1	1066.3	1110.2	1175.9	1211.2
162.5°	1055.4	1083.6	1116.0	1169.9	1193.9
165°	1088.6	1102.7	1124.7	1154.0	1175.1
167.5°	1107.4	1120.0	1131.9	1146.6	1159.3
170°	1124.7	1131.7	1131.9	1146.4	1153.5
172.5°	1130.4	1143.1	1137.6	1140.7	1147.7
175°	1146.3	1153.3	1146.3	1138.9	1131.9
177.5°	1146.3	1151.9	1146.3	1146.2	1140.5
180°	1146.3	1146.3	1146.3	1146.3	1146.3

(END OF REPORT)