

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: P644914

Luminaire Tested: OMN4DIP-SR4F0-50D150U840-FLLOOB-1DUDD-WW

Issue Date: 2/16/2023



Test Information

Test Method: LM-79-2019
Report Number: P644914
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-SR4F0-50D150U840-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: 4000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

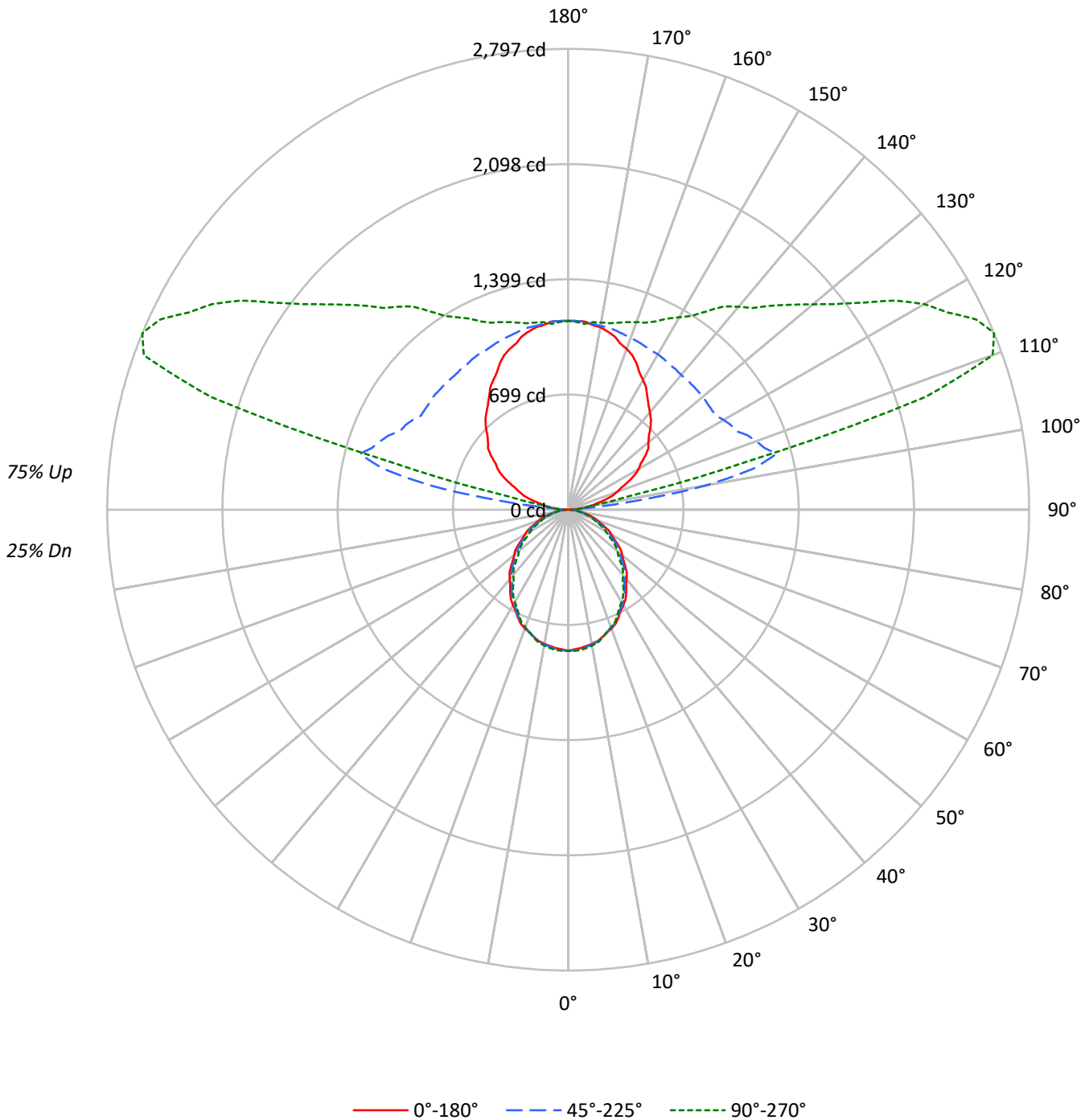
Lumens per Lamp: N/A
Luminaire Lumens: 8249.5 lumens
Efficiency: N/A
Efficacy: 131.2 lumens/watt
Spacing Criteria (0/90/45): 1.17 / 1.13 / 1.26
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: Semi-Indirect

Input Watts (W): 62.9
Input Voltage (V): 120
Input Current (A_{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										
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	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°	13831	13831	13831
5°	13676	13770	13864
10°	13565	13623	13719
15°	13382	13382	13461
20°	13196	13096	13055
25°	12852	12748	12581
30°	12471	12297	12059
35°	12082	11785	11509
40°	11618	11274	10882
45°	11230	10805	10271
50°	10743	10276	9748
55°	10334	9810	9219
60°	9859	9332	8541
65°	9349	8684	8015
70°	8856	8030	7482
75°	8291	7342	6981
80°	7587	6722	6397
85°	7132	6262	5835

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 11230 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	80.6	1.0
10°-20°	226.1	2.7
20°-30°	328.8	4.0
30°-40°	374.0	4.5
40°-50°	364.6	4.4
50°-60°	311.3	3.8
60°-70°	226.2	2.7
70°-80°	127.9	1.6
80°-90°	42.0	0.5
90°-100°	145.9	1.8
100°-110°	1007.1	12.2
110°-120°	1365.1	16.5
120°-130°	1110.7	13.5
130°-140°	892.6	10.8
140°-150°	703.6	8.5
150°-160°	514.5	6.2
160°-170°	319.6	3.9
170°-180°	109.0	1.3
0°-30°	635.5	7.7
0°-40°	1009.5	12.2
0°-60°	1685.4	20.4
0°-90°	2081.4	25.2
90°-120°	2518.1	30.5
90°-150°	5225.0	63.3
90°-180°	6168.0	74.8
0°-180°	8249.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	857	857	857	857	857	
5°	844	856	850	849	855	80
15°	801	811	801	800	805	226
25°	721	728	716	703	706	332
35°	613	615	598	584	584	383
45°	492	490	473	457	450	378
55°	367	366	348	332	328	328
65°	245	242	227	213	210	243
75°	133	128	118	113	112	141
85°	38	34	34	33	32	41
90°	5	13	21	28	28	7
95°	67	112	61	69	82	71
105°	229	347	1307	1668	1103	242
115°	400	484	1126	2338	2732	398
125°	572	649	1061	1853	2192	508
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	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	856.6	856.6	856.6	856.6	856.6
2.5°	849.1	860.1	853.8	853.9	857.5
5°	843.8	856.3	849.6	848.6	855.4
7.5°	834.9	847.2	839.3	838.1	847.0
10°	827.4	838.8	830.9	828.8	836.8
12.5°	817.2	828.6	820.7	817.6	825.6
15°	800.6	810.9	800.6	799.6	805.3
17.5°	782.0	790.9	779.0	775.1	779.4
20°	768.0	776.0	762.2	756.4	759.8
22.5°	750.3	758.3	743.5	735.0	739.3
25°	721.4	728.2	715.6	702.8	706.2
27.5°	690.4	695.6	682.9	669.9	671.0
30°	668.9	672.4	659.6	645.7	646.8
32.5°	646.6	649.1	635.4	620.5	620.7
35°	613.0	615.3	597.9	583.9	583.9
37.5°	577.3	578.7	560.1	544.9	543.3
40°	551.2	553.5	534.9	519.7	516.3
42.5°	527.0	527.5	510.7	495.4	491.1
45°	491.8	489.5	473.2	456.7	449.8
47.5°	453.8	453.8	435.2	418.7	412.3
50°	427.7	427.7	409.1	392.6	388.1
52.5°	403.5	402.6	384.8	368.4	362.0
55°	367.1	366.0	348.5	332.0	327.5
57.5°	328.6	328.6	312.3	294.7	289.7
60°	305.3	305.3	289.0	271.4	264.5
62.5°	280.2	279.3	262.9	247.2	243.1
65°	244.7	242.5	227.3	213.2	209.8
67.5°	210.9	208.7	192.5	181.3	179.0
70°	187.6	185.4	170.1	160.8	158.5
72.5°	165.3	162.1	148.7	141.2	138.9
75°	132.9	128.3	117.7	113.0	111.9
77.5°	102.1	94.3	90.0	86.7	85.5
80°	81.6	74.7	72.3	69.9	68.8
82.5°	63.9	57.0	56.4	55.0	53.8
85°	38.5	33.9	33.8	32.6	31.5
87.5°	16.8	15.7	17.3	18.5	18.5
90°	4.7	12.9	21.4	27.5	27.5
92.5°	25.7	30.2	36.8	49.7	54.4
95°	67.0	111.8	61.2	68.7	81.6
97.5°	110.5	210.0	427.2	127.1	109.3
100°	145.1	261.6	853.0	251.6	167.0
102.5°	178.8	300.9	1152.9	661.9	362.1
105°	229.3	346.9	1307.2	1668.1	1103.0
107.5°	281.0	369.2	1248.1	2427.2	2272.4
110°	314.7	398.1	1213.5	2550.4	2739.5



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	349.3	432.7	1178.9	2478.3	2797.2
115°	400.0	483.5	1125.8	2337.6	2732.3
117.5°	453.4	535.4	1112.8	2186.4	2592.5
120°	493.7	570.1	1089.8	2071.5	2494.4
122.5°	521.6	604.6	1060.9	1972.7	2361.8
125°	571.9	649.4	1060.9	1853.3	2191.6
127.5°	612.5	692.4	1062.4	1714.8	2048.9
130°	635.6	720.2	1068.1	1622.1	1939.3
132.5°	663.5	748.1	1067.2	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)