

Signify Classified - Internal  
Cooper Lighting Solutions Photometric Lab  
1121 Highway 74 South  
Peachtree City, GA 30269



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: P644906

Luminaire Tested: OMN4DIP-SR4F0-50D150U830-FLLOOB-1DUDD-WW

Issue Date: 2/16/2023



**Test Information**

Test Method: LM-79-2019  
Report Number: P644906  
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-SR4F0-50D150U830-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: 3000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

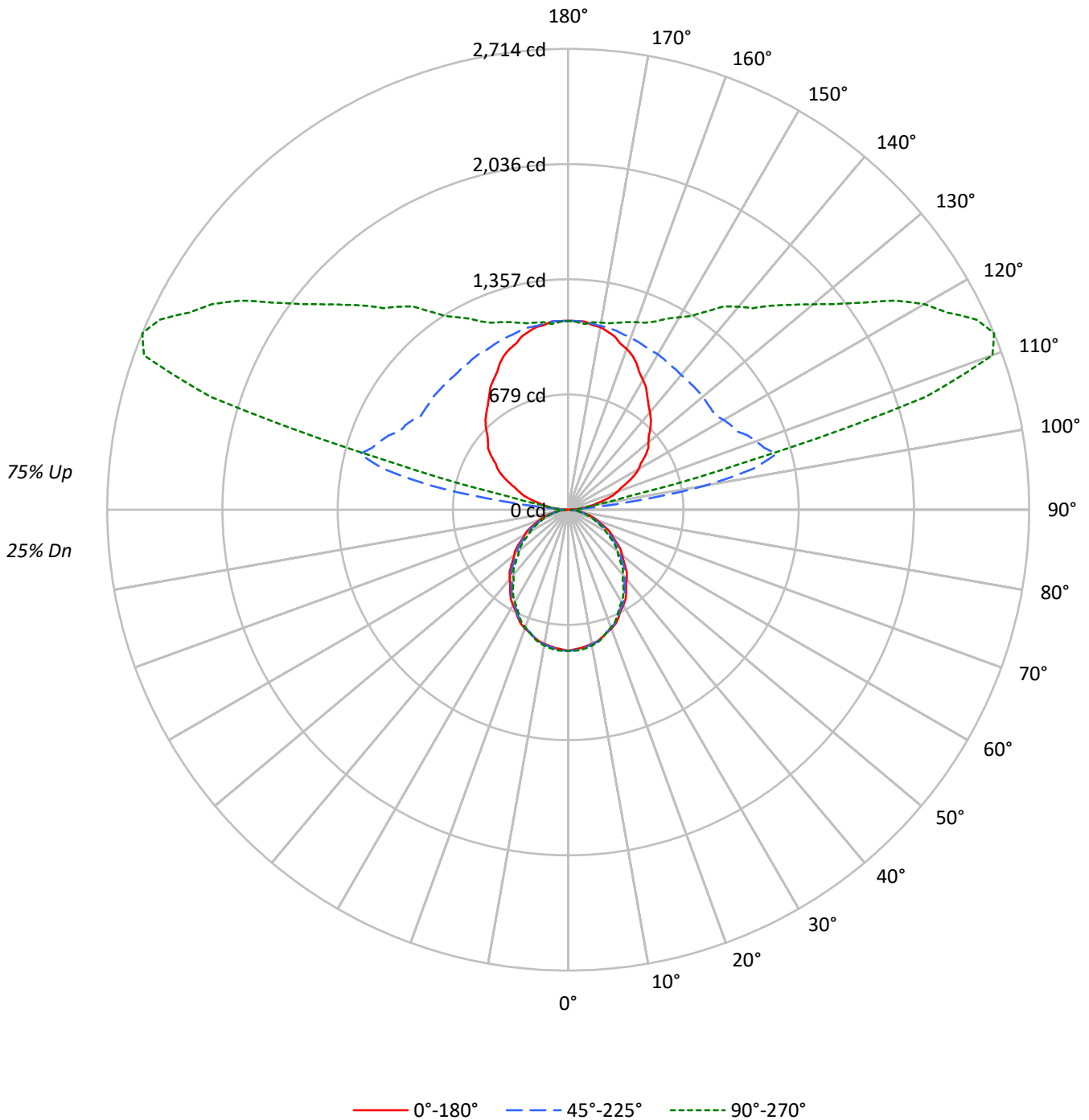
Lumens per Lamp: N/A  
Luminaire Lumens: 8003.4 lumens  
Efficiency: N/A  
Efficacy: 127.2 lumens/watt  
Spacing Criteria (0/90/45): 1.17 / 1.13 / 1.26  
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')  
CIE Type: Semi-Indirect

Input Watts (W): 62.9  
Input Voltage (V): 120  
Input Current (A<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°	13417	13417	13417
5°	13267	13358	13451
10°	13162	13218	13309
15°	12985	12985	13060
20°	12802	12704	12667
25°	12469	12367	12207
30°	12100	11930	11699
35°	11722	11432	11166
40°	11272	10939	10557
45°	10894	10481	9965
50°	10422	9970	9457
55°	10027	9517	8943
60°	9565	9055	8289
65°	9070	8424	7775
70°	8592	7794	7260
75°	8041	7124	6769
80°	7355	6518	6202
85°	6910	6076	5650

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 10894 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	78.2	1.0
10°-20°	219.4	2.7
20°-30°	319.0	4.0
30°-40°	362.8	4.5
40°-50°	353.8	4.4
50°-60°	302.0	3.8
60°-70°	219.4	2.7
70°-80°	124.1	1.6
80°-90°	40.7	0.5
90°-100°	141.5	1.8
100°-110°	977.0	12.2
110°-120°	1324.4	16.5
120°-130°	1077.5	13.5
130°-140°	866.0	10.8
140°-150°	682.6	8.5
150°-160°	499.1	6.2
160°-170°	310.0	3.9
170°-180°	105.7	1.3
0°-30°	616.5	7.7
0°-40°	979.3	12.2
0°-60°	1635.1	20.4
0°-90°	2019.3	25.2
90°-120°	2443.0	30.5
90°-150°	5069.1	63.3
90°-180°	5984.0	74.8
0°-180°	8003.4	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	831	831	831	831	831	
5°	819	831	824	823	830	78
15°	777	787	777	776	781	219
25°	700	706	694	682	685	322
35°	595	597	580	566	566	371
45°	477	475	459	443	436	367
55°	356	355	338	322	318	318
65°	237	235	220	207	204	236
75°	129	124	114	110	108	137
85°	37	33	33	32	30	40
90°	4	12	21	27	27	7
95°	65	108	59	67	79	69
105°	222	336	1268	1618	1070	235
115°	388	469	1092	2268	2651	386
125°	555	630	1029	1798	2126	493
135°	685	761	1035	1481	1700	527
145°	811	880	1042	1290	1427	510
155°	951	985	1063	1169	1224	437
165°	1056	1070	1091	1120	1140	297
175°	1112	1119	1112	1105	1098	105
180°	1112	1112	1112	1112	1112	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	831.0	831.0	831.0	831.0	831.0
2.5°	823.8	834.4	828.3	828.4	831.9
5°	818.6	830.7	824.2	823.3	829.9
7.5°	810.0	821.9	814.3	813.1	821.8
10°	802.8	813.8	806.2	804.1	811.8
12.5°	792.8	803.9	796.2	793.2	800.9
15°	776.8	786.7	776.8	775.7	781.3
17.5°	758.7	767.3	755.7	752.0	756.2
20°	745.1	752.8	739.4	733.9	737.2
22.5°	727.9	735.6	721.4	713.1	717.3
25°	699.9	706.5	694.2	681.9	685.2
27.5°	669.8	674.9	662.6	649.9	651.0
30°	649.0	652.3	639.9	626.4	627.5
32.5°	627.3	629.7	616.4	602.0	602.2
35°	594.7	596.9	580.0	566.5	566.5
37.5°	560.1	561.4	543.4	528.7	527.1
40°	534.8	537.0	519.0	504.2	500.9
42.5°	511.3	511.7	495.4	480.7	476.5
45°	477.1	474.9	459.0	443.1	436.4
47.5°	440.3	440.3	422.2	406.2	400.0
50°	414.9	414.9	396.9	380.9	376.5
52.5°	391.4	390.5	373.3	357.4	351.2
55°	356.2	355.0	338.1	322.1	317.7
57.5°	318.8	318.8	303.0	285.9	281.1
60°	296.2	296.2	280.4	263.3	256.7
62.5°	271.8	270.9	255.1	239.8	235.9
65°	237.4	235.2	220.5	206.8	203.5
67.5°	204.6	202.4	186.8	175.9	173.7
70°	182.0	179.8	165.1	156.0	153.8
72.5°	160.3	157.2	144.3	137.0	134.8
75°	128.9	124.5	114.2	109.6	108.5
77.5°	99.0	91.5	87.3	84.1	83.0
80°	79.1	72.5	70.1	67.8	66.7
82.5°	62.0	55.3	54.7	53.3	52.2
85°	37.3	32.9	32.8	31.6	30.5
87.5°	16.3	15.2	16.8	18.0	18.0
90°	4.5	12.5	20.8	26.6	26.6
92.5°	24.9	29.3	35.7	48.2	52.8
95°	65.0	108.4	59.3	66.6	79.2
97.5°	107.2	203.8	414.4	123.3	106.0
100°	140.8	253.8	827.6	244.1	162.0
102.5°	173.5	291.9	1118.6	642.2	351.3
105°	222.5	336.5	1268.2	1618.3	1070.1
107.5°	272.6	358.2	1210.9	2354.8	2204.6
110°	305.3	386.2	1177.3	2474.3	2657.8



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	338.9	419.8	1143.7	2404.4	2713.8
115°	388.1	469.0	1092.2	2267.9	2650.8
117.5°	439.8	519.4	1079.7	2121.2	2515.2
120°	479.0	553.1	1057.3	2009.7	2420.0
122.5°	506.1	586.6	1029.3	1913.8	2291.3
125°	554.8	630.0	1029.3	1798.0	2126.3
127.5°	594.2	671.7	1030.7	1663.6	1987.8
130°	616.6	698.7	1036.3	1573.7	1881.5
132.5°	643.7	725.8	1035.4	1533.3	1786.3
135°	685.4	760.7	1035.2	1480.8	1699.6
137.5°	720.4	801.1	1035.2	1422.7	1610.1
140°	748.4	823.6	1035.2	1388.8	1559.7
142.5°	776.4	846.1	1040.8	1349.3	1509.4
145°	811.3	879.7	1042.2	1290.1	1426.8
147.5°	853.3	913.5	1050.5	1247.4	1352.7
150°	881.3	936.0	1056.1	1219.0	1307.9
152.5°	909.3	958.5	1056.1	1196.3	1268.8
155°	951.2	985.4	1063.1	1169.3	1224.0
157.5°	984.8	1017.6	1071.5	1152.2	1191.8
160°	1007.2	1034.5	1077.1	1140.8	1175.0
162.5°	1024.0	1051.3	1082.7	1135.0	1158.3
165°	1056.1	1069.8	1091.1	1119.6	1140.1
167.5°	1074.3	1086.6	1098.1	1112.4	1124.7
170°	1091.1	1098.0	1098.1	1112.3	1119.1
172.5°	1096.7	1109.0	1103.7	1106.7	1113.5
175°	1112.1	1118.9	1112.1	1104.9	1098.1
177.5°	1112.1	1117.6	1112.1	1112.0	1106.5
180°	1112.1	1112.1	1112.1	1112.1	1112.1

(END OF REPORT)