

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: P644991

Luminaire Tested: OMN4DIP-SR4F0-50D50U940-FLLOOB-1DUDD-WW

Issue Date: 2/16/2023



**Test Information**

Test Method: LM-79-2019  
Report Number: P644991  
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-SR4F0-50D50U940-FLLOOB-1DUDD-WW  
Description: NEO-RAY CIRQUE SUSPENDED LED LUMINAIRE  
DOWNLIGHT - FLAT FROSTED LENS - 500 LUMENS PER FOOT  
UPLIGHT - BATWING OPTIC - 500 LUMENS PER FOOT  
Light Source: 4000K CCT, 90 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

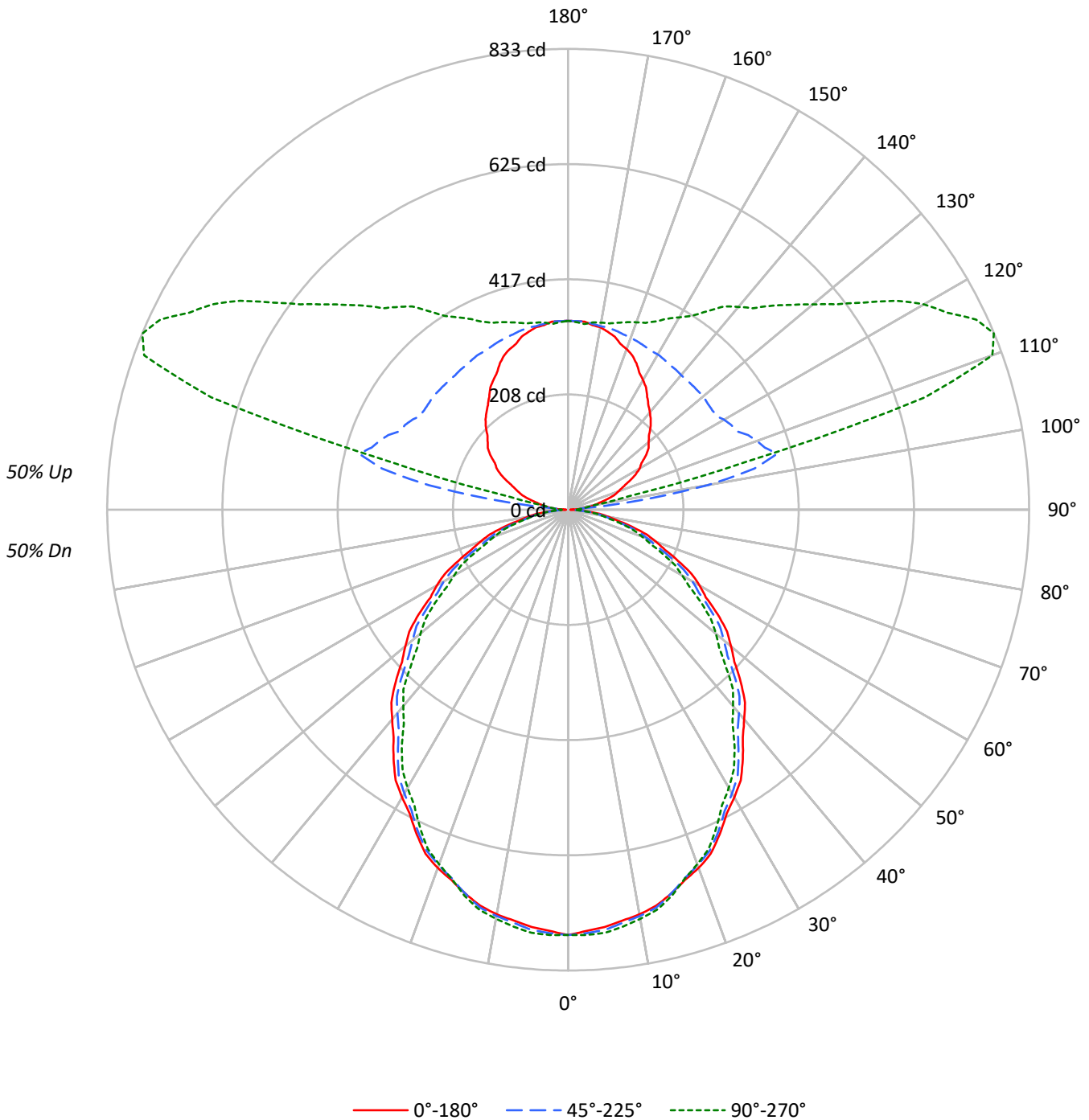
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3708.6 lumens  
Efficiency: N/A  
Efficacy: 128.3 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: General Diffuse  
  
Input Watts (W): 28.9  
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									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	107	107	107	107	99	99	99	99	84	84	84	69	69	69	56	56	56	50																			
1	98	94	90	86	90	87	83	80	73	71	69	61	59	58	50	49	48	42																			
2	89	82	76	71	82	76	70	66	64	60	57	54	51	49	44	42	40	36																			
3	81	72	65	59	75	67	60	55	57	52	48	48	44	41	39	37	34	30																			
4	75	64	56	50	69	59	52	47	51	45	41	43	39	35	35	32	30	26																			
5	69	57	49	43	63	53	46	40	45	40	36	38	34	31	32	29	26	23																			
6	63	51	43	37	58	48	40	35	41	35	31	35	30	27	29	26	23	20																			
7	58	46	38	33	54	43	36	31	37	31	27	32	27	24	26	23	21	18																			
8	54	42	34	29	50	39	32	27	34	28	24	29	25	21	24	21	18	16																			
9	51	38	31	26	47	36	29	25	31	26	22	27	22	19	22	19	17	15																			
10	47	35	28	23	44	33	26	22	29	23	20	25	20	17	21	18	15	13																			

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

	0°	45°	90°
0°	12411	12411	12411
5°	12272	12357	12443
10°	12175	12226	12311
15°	12010	12010	12080
20°	11842	11753	11716
25°	11533	11441	11291
30°	11192	11037	10821
35°	10843	10575	10328
40°	10427	10117	9765
45°	10076	9695	9218
50°	9640	9221	8749
55°	9272	8802	8273
60°	8848	8376	7666
65°	8390	7790	7194
70°	7950	7209	6713
75°	7436	6588	6263
80°	6806	6025	5737
85°	6391	5613	5224

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 10076 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	72.3	1.9
10°-20°	202.9	5.5
20°-30°	295.1	8.0
30°-40°	335.6	9.0
40°-50°	327.2	8.8
50°-60°	279.3	7.5
60°-70°	203.0	5.5
70°-80°	114.8	3.1
80°-90°	36.1	1.0
90°-100°	46.4	1.3
100°-110°	301.4	8.1
110°-120°	407.4	11.0
120°-130°	331.2	8.9
130°-140°	265.8	7.2
140°-150°	209.4	5.6
150°-160°	153.1	4.1
160°-170°	95.1	2.6
170°-180°	32.4	0.9
0°-30°	570.3	15.4
0°-40°	905.9	24.4
0°-60°	1512.4	40.8
0°-90°	1866.3	50.3
90°-120°	755.2	20.4
90°-150°	1561.6	42.1
90°-180°	1842.0	49.7
0°-180°	3708.6	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	769	769	769	769	769	
5°	757	768	762	762	768	72
15°	718	728	718	718	723	203
25°	647	654	642	631	634	298
35°	550	552	536	524	524	343
45°	441	439	425	410	404	340
55°	329	328	313	298	294	294
65°	220	218	204	191	188	218
75°	119	115	106	101	100	127
85°	34	30	30	29	28	37
90°	4	7	11	12	12	5
95°	26	36	20	22	26	25
105°	72	105	390	497	328	76
115°	121	145	336	696	813	121
125°	172	195	316	552	652	152
135°	210	233	318	454	522	162
145°	249	270	320	396	438	156
155°	292	302	326	359	376	134
165°	324	328	335	344	350	91
175°	341	343	341	339	337	32
180°	341	341	341	341	341	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	768.7	768.7	768.7	768.7	768.7
2.5°	762.0	771.8	766.2	766.3	769.5
5°	757.2	768.4	762.4	761.5	767.7
7.5°	749.2	760.3	753.2	752.1	760.1
10°	742.6	752.8	745.7	743.8	750.9
12.5°	733.4	743.6	736.5	733.7	740.9
15°	718.5	727.7	718.5	717.6	722.7
17.5°	701.8	709.7	699.0	695.6	699.5
20°	689.2	696.4	684.0	678.8	681.9
22.5°	673.3	680.5	667.3	659.6	663.5
25°	647.4	653.5	642.2	630.7	633.8
27.5°	619.6	624.3	612.9	601.2	602.2
30°	600.3	603.4	592.0	579.4	580.4
32.5°	580.2	582.5	570.2	556.8	557.0
35°	550.1	552.2	536.5	524.0	524.0
37.5°	518.1	519.3	502.6	489.0	487.6
40°	494.7	496.7	480.0	466.4	463.3
42.5°	472.9	473.3	458.3	444.6	440.7
45°	441.3	439.3	424.6	409.8	403.7
47.5°	407.3	407.3	390.5	375.7	370.0
50°	383.8	383.8	367.1	352.4	348.3
52.5°	362.1	361.3	345.3	330.6	324.8
55°	329.4	328.4	312.7	298.0	293.9
57.5°	294.9	294.9	280.3	264.5	260.0
60°	274.0	274.0	259.4	243.5	237.4
62.5°	251.4	250.6	235.9	221.8	218.2
65°	219.6	217.6	203.9	191.3	188.3
67.5°	189.3	187.3	172.8	162.7	160.6
70°	168.4	166.3	152.7	144.3	142.2
72.5°	148.3	145.4	133.5	126.7	124.7
75°	119.2	115.1	105.6	101.4	100.4
77.5°	91.6	84.7	80.7	77.8	76.8
80°	73.2	67.1	64.8	62.7	61.7
82.5°	57.3	51.2	50.6	49.3	48.3
85°	34.5	30.4	30.3	29.3	28.2
87.5°	15.1	13.2	13.8	14.0	14.0
90°	4.2	7.3	10.6	11.7	11.7
92.5°	12.7	12.5	14.0	17.7	18.6
95°	25.5	36.1	20.3	22.5	25.7
97.5°	37.8	65.4	129.1	39.1	33.2
100°	48.1	80.7	255.3	75.6	50.4
102.5°	57.6	91.8	344.6	197.7	107.9
105°	71.8	105.4	390.5	497.2	328.3
107.5°	87.0	112.0	372.9	723.2	676.4
110°	96.5	120.6	362.6	759.8	815.4



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	106.8	130.9	352.3	738.4	832.6
115°	121.2	145.3	335.8	695.8	813.3
117.5°	137.0	160.8	331.9	650.8	771.7
120°	149.1	171.1	325.1	616.6	742.5
122.5°	156.8	181.4	316.5	587.2	703.0
125°	171.6	194.7	316.5	551.6	652.4
127.5°	183.0	207.3	316.9	510.4	609.9
130°	189.9	215.1	318.6	482.8	577.2
132.5°	197.6	222.8	317.8	470.4	548.1
135°	210.3	233.4	317.6	454.3	521.5
137.5°	221.0	245.8	317.6	436.5	494.0
140°	229.6	252.7	317.6	426.1	478.5
142.5°	238.2	259.6	319.3	414.0	463.1
145°	248.9	269.9	319.7	395.8	437.8
147.5°	261.8	280.3	322.3	382.7	415.0
150°	270.4	287.2	324.0	374.0	401.3
152.5°	279.0	294.1	324.0	367.0	389.3
155°	291.8	302.3	326.2	358.7	375.5
157.5°	302.1	312.2	328.8	353.5	365.7
160°	309.0	317.4	330.5	350.0	360.5
162.5°	314.2	322.6	332.2	348.2	355.4
165°	324.0	328.2	334.8	343.5	349.8
167.5°	329.6	333.4	336.9	341.3	345.1
170°	334.8	336.9	336.9	341.2	343.3
172.5°	336.5	340.3	338.6	339.5	341.6
175°	341.2	343.3	341.2	339.0	336.9
177.5°	341.2	342.9	341.2	341.2	339.5
180°	341.2	341.2	341.2	341.2	341.2

(END OF REPORT)