

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: P644970

Luminaire Tested: OMN4DIP-SR4F0-50D50U835-FLLOOB-1DUDD-WW

Issue Date: 2/16/2023



**Test Information**

Test Method: LM-79-2019  
Report Number: P644970  
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-SR4F0-50D50U835-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: 3500K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

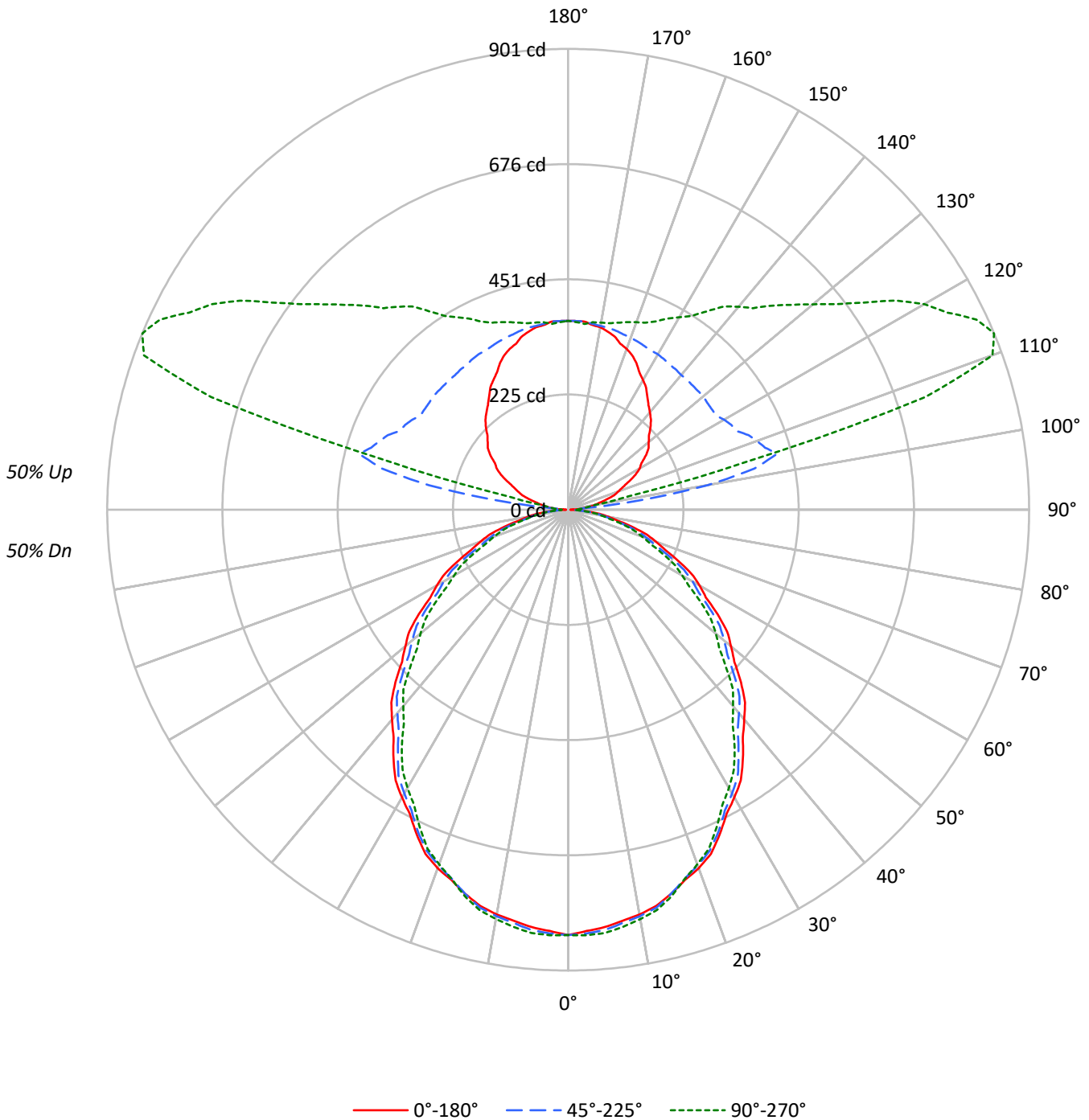
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4013.0 lumens  
Efficiency: N/A  
Efficacy: 138.9 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					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	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°	13430	13430	13430
5°	13279	13371	13462
10°	13173	13229	13321
15°	12996	12996	13071
20°	12814	12716	12677
25°	12479	12378	12218
30°	12111	11941	11710
35°	11734	11442	11176
40°	11282	10947	10566
45°	10905	10492	9974
50°	10432	9977	9465
55°	10035	9526	8952
60°	9574	9064	8296
65°	9077	8432	7782
70°	8601	7799	7265
75°	8047	7130	6775
80°	7364	6527	6211
85°	6910	6076	5669

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 10905 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	78.2	1.9
10°-20°	219.6	5.5
20°-30°	319.3	8.0
30°-40°	363.2	9.0
40°-50°	354.1	8.8
50°-60°	302.2	7.5
60°-70°	219.6	5.5
70°-80°	124.2	3.1
80°-90°	39.1	1.0
90°-100°	50.2	1.3
100°-110°	326.2	8.1
110°-120°	440.8	11.0
120°-130°	358.4	8.9
130°-140°	287.6	7.2
140°-150°	226.6	5.6
150°-160°	165.7	4.1
160°-170°	102.9	2.6
170°-180°	35.1	0.9
0°-30°	617.1	15.4
0°-40°	980.2	24.4
0°-60°	1636.6	40.8
0°-90°	2019.5	50.3
90°-120°	817.2	20.4
90°-150°	1689.7	42.1
90°-180°	1993.0	49.7
0°-180°	4013.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	832	832	832	832	832	
5°	819	832	825	824	831	78
15°	778	787	778	776	782	219
25°	700	707	695	682	686	322
35°	595	598	580	567	567	372
45°	478	475	460	444	437	368
55°	356	355	338	322	318	318
65°	238	235	221	207	204	236
75°	129	125	114	110	109	137
85°	37	33	33	32	31	40
90°	4	8	11	13	13	5
95°	28	39	22	24	28	28
105°	78	114	422	538	355	82
115°	131	157	363	753	880	131
125°	186	211	342	597	706	165
135°	228	252	344	492	564	175
145°	269	292	346	428	474	169
155°	316	327	353	388	406	145
165°	351	355	362	372	378	98
175°	369	372	369	367	365	35
180°	369	369	369	369	369	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	831.8	831.8	831.8	831.8	831.8
2.5°	824.5	835.2	829.1	829.1	832.7
5°	819.3	831.5	825.0	824.0	830.6
7.5°	810.7	822.7	815.0	813.9	822.5
10°	803.5	814.5	806.9	804.8	812.5
12.5°	793.5	804.6	796.9	793.9	801.7
15°	777.5	787.4	777.5	776.4	782.0
17.5°	759.3	768.0	756.4	752.7	756.9
20°	745.8	753.5	740.1	734.5	737.8
22.5°	728.6	736.3	722.0	713.7	717.9
25°	700.5	707.1	694.8	682.5	685.8
27.5°	670.4	675.5	663.2	650.5	651.6
30°	649.6	652.9	640.5	627.0	628.1
32.5°	627.8	630.3	617.0	602.5	602.7
35°	595.3	597.5	580.5	567.0	567.0
37.5°	560.6	562.0	543.9	529.1	527.6
40°	535.3	537.5	519.4	504.6	501.3
42.5°	511.7	512.2	495.9	481.1	476.9
45°	477.6	475.4	459.5	443.5	436.8
47.5°	440.7	440.7	422.6	406.6	400.4
50°	415.3	415.3	397.2	381.3	376.8
52.5°	391.8	390.9	373.7	357.7	351.5
55°	356.5	355.4	338.4	322.4	318.0
57.5°	319.1	319.1	303.3	286.2	281.3
60°	296.5	296.5	280.7	263.5	256.9
62.5°	272.1	271.2	255.3	240.0	236.1
65°	237.6	235.4	220.7	207.0	203.7
67.5°	204.8	202.6	187.0	176.0	173.8
70°	182.2	180.0	165.2	156.1	153.9
72.5°	160.5	157.4	144.4	137.1	134.9
75°	129.0	124.6	114.3	109.7	108.6
77.5°	99.1	91.6	87.4	84.2	83.1
80°	79.2	72.6	70.2	67.9	66.8
82.5°	62.0	55.4	54.8	53.4	52.3
85°	37.3	32.9	32.8	31.7	30.6
87.5°	16.3	14.3	15.0	15.2	15.2
90°	4.5	7.9	11.4	12.6	12.6
92.5°	13.7	13.6	15.2	19.2	20.1
95°	27.6	39.1	22.0	24.4	27.8
97.5°	40.9	70.7	139.7	42.3	36.0
100°	52.0	87.3	276.3	81.8	54.5
102.5°	62.3	99.4	372.9	213.9	116.8
105°	77.6	114.0	422.5	538.0	355.3
107.5°	94.1	121.2	403.5	782.5	731.9
110°	104.4	130.5	392.4	822.2	882.4



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	115.5	141.7	381.2	799.0	900.9
115°	131.1	157.2	363.4	752.9	880.0
117.5°	148.3	174.0	359.2	704.2	835.0
120°	161.3	185.2	351.8	667.2	803.4
122.5°	169.7	196.2	342.5	635.4	760.7
125°	185.7	210.7	342.5	596.9	705.9
127.5°	198.0	224.3	342.9	552.3	659.9
130°	205.5	232.7	344.8	522.4	624.6
132.5°	213.8	241.1	343.9	509.0	593.0
135°	227.6	252.5	343.7	491.6	564.2
137.5°	239.2	266.0	343.7	472.3	534.5
140°	248.5	273.4	343.7	461.0	517.8
142.5°	257.7	280.9	345.5	448.0	501.1
145°	269.4	292.1	346.0	428.3	473.7
147.5°	283.3	303.3	348.8	414.1	449.1
150°	292.6	310.7	350.6	404.7	434.2
152.5°	301.9	318.2	350.6	397.1	421.2
155°	315.8	327.1	352.9	388.2	406.3
157.5°	326.9	337.8	355.7	382.5	395.7
160°	334.4	343.4	357.6	378.7	390.1
162.5°	339.9	349.0	359.4	376.8	384.5
165°	350.6	355.2	362.2	371.7	378.5
167.5°	356.7	360.7	364.6	369.3	373.4
170°	362.2	364.5	364.6	369.2	371.5
172.5°	364.1	368.2	366.4	367.4	369.7
175°	369.2	371.5	369.2	366.8	364.6
177.5°	369.2	371.0	369.2	369.2	367.3
180°	369.2	369.2	369.2	369.2	369.2

(END OF REPORT)