

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: P645169

Luminaire Tested: OMN4DIP-SR4F0-75D50U940-CLBOOB-1DUDD-WW

Issue Date: 2/16/2023



**Test Information**

Test Method: LM-79-2019  
Report Number: P645169  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2203-563-26, G2-2206-689-20)  
Test Lab: INNOVATION CENTER  
Issue Date: 2/16/2023  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: OMN4DIP-SR4F0-75D50U940-CLBOOB-1DUDD-WW  
Description: NEO-RAY CIRQUE SUSPENDED LED LUMINAIRE  
DOWNLIGHT - BATWING LENS - 750 LUMENS PER FOOT  
UPLIGHT - BATWING OPTIC - 500 LUMENS PER FOOT  
Light Source: 4000K CCT, 90 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

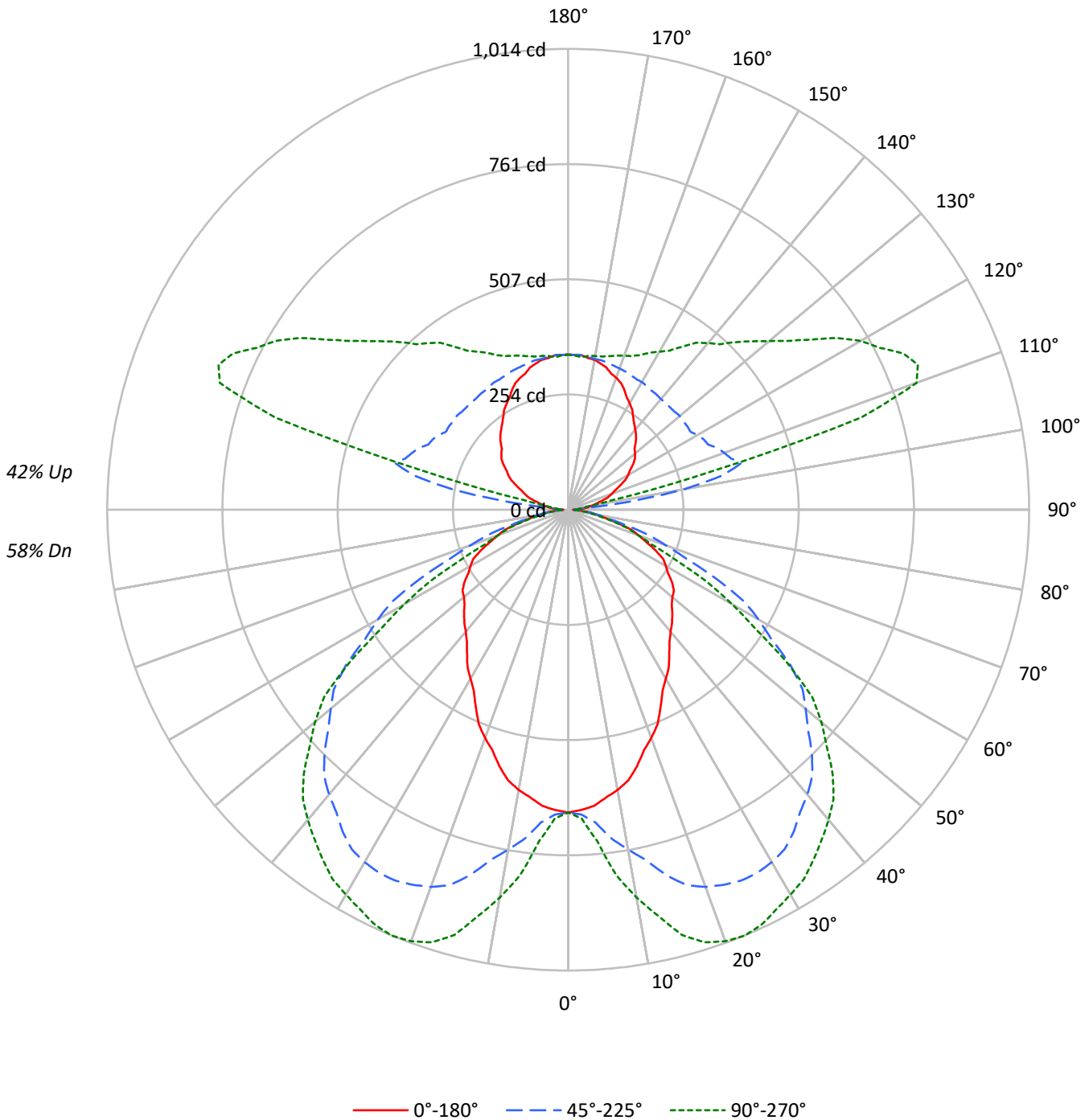
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4410.9 lumens  
Efficiency: N/A  
Efficacy: 121.2 lumens/watt  
Spacing Criteria (0/90/45): 0.99 / 1.87 / 1.75  
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')  
CIE Type: General Diffuse  
  
Input Watts (W): 36.4  
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	109	109	109	109	102	102	102	102	88	88	88	75	75	75	63	63	63	58				
1	100	95	91	88	93	89	86	83	77	75	72	66	65	63	56	55	54	49				
2	91	83	77	72	84	78	72	68	68	64	60	58	55	52	50	47	45	41				
3	83	73	66	60	77	68	62	57	60	54	50	51	47	44	44	41	38	35				
4	76	65	57	50	70	60	53	48	53	47	43	46	41	38	39	36	33	30				
5	69	57	49	43	64	54	46	41	47	41	37	41	36	32	35	31	28	25				
6	64	51	43	37	59	48	41	35	42	36	32	37	32	28	31	28	25	22				
7	59	46	38	32	55	43	36	31	38	32	28	33	28	25	29	25	22	19				
8	55	42	34	29	51	39	32	27	35	29	25	30	26	22	26	22	19	17				
9	51	38	31	25	47	36	29	24	32	26	22	28	23	20	24	20	17	15				
10	47	35	28	23	44	33	26	22	29	24	20	26	21	18	22	18	16	14				

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

	0°	45°	90°
0°	10760	10760	10760
5°	10600	11203	11856
10°	10265	12449	14203
15°	9765	13911	16191
20°	9186	15177	17361
25°	8558	16041	17945
30°	8004	16699	18232
35°	7636	17044	18542
40°	7381	17245	18782
45°	7396	17303	18790
50°	7513	17128	18256
55°	7851	16794	16577
60°	8005	15613	13462
65°	8111	13677	9887
70°	7756	10754	7681
75°	6962	8022	6475
80°	5904	6341	5188
85°	5743	5169	4298

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 18790 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	68.3	1.5
10°-20°	227.1	5.1
20°-30°	377.3	8.6
30°-40°	476.0	10.8
40°-50°	508.8	11.5
50°-60°	449.1	10.2
60°-70°	288.2	6.5
70°-80°	127.8	2.9
80°-90°	33.9	0.8
90°-100°	50.7	1.1
100°-110°	304.5	6.9
110°-120°	410.1	9.3
120°-130°	333.0	7.6
130°-140°	265.9	6.0
140°-150°	209.4	4.7
150°-160°	153.1	3.5
160°-170°	95.1	2.2
170°-180°	32.4	0.7
0°-30°	672.8	15.3
0°-40°	1148.7	26.0
0°-60°	2106.6	47.8
0°-90°	2556.6	58.0
90°-120°	765.2	17.3
90°-150°	1573.6	35.7
90°-180°	1854.0	42.0
0°-180°	4410.9	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	666	666	666	666	666	
5°	654	674	691	715	732	61
15°	584	674	832	932	969	164
25°	480	652	900	985	1007	221
35°	387	595	865	921	941	243
45°	324	509	758	805	823	250
55°	279	400	597	600	589	247
65°	212	268	358	291	259	208
75°	112	124	129	110	104	119
85°	31	26	28	25	23	33
90°	11	13	14	16	13	8
95°	34	43	25	24	27	32
105°	77	112	393	498	328	82
115°	126	149	339	697	813	125
125°	174	197	320	553	652	155
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°	666.4	666.4	666.4	666.4	666.4
2.5°	661.4	671.1	671.3	675.2	680.0
5°	654.0	673.7	691.2	714.8	731.5
7.5°	638.5	673.6	729.6	784.5	811.7
10°	626.1	674.6	759.3	832.9	866.3
12.5°	610.0	674.2	789.1	877.7	915.9
15°	584.2	673.6	832.2	932.2	968.6
17.5°	554.5	670.8	866.0	966.2	998.0
20°	534.6	668.0	883.3	978.6	1010.4
22.5°	512.3	661.4	893.2	984.7	1014.1
25°	480.4	651.6	900.4	984.6	1007.3
27.5°	449.1	637.6	900.7	972.1	991.5
30°	429.3	626.2	895.7	959.7	977.9
32.5°	411.9	613.7	885.8	944.8	964.2
35°	387.4	595.0	864.7	921.0	940.7
37.5°	366.3	573.6	838.1	892.8	915.9
40°	350.2	556.3	818.2	872.9	891.1
42.5°	337.8	537.8	794.7	848.0	863.8
45°	323.9	508.7	757.8	804.7	822.9
47.5°	309.0	478.7	715.3	759.6	771.4
50°	299.1	456.7	681.9	722.3	726.8
52.5°	292.9	433.5	649.6	675.1	676.0
55°	278.9	400.2	596.6	599.5	588.9
57.5°	260.3	361.3	529.4	514.2	488.8
60°	247.9	334.3	483.5	453.2	416.9
62.5°	235.6	308.6	435.2	386.1	343.7
65°	212.3	268.4	358.0	290.6	258.8
67.5°	185.3	224.1	281.1	217.4	196.2
70°	164.3	194.6	227.8	177.9	162.7
72.5°	144.4	165.0	184.4	147.0	139.2
75°	111.6	123.7	128.6	109.9	103.8
77.5°	82.1	82.7	89.3	77.4	74.4
80°	63.5	60.5	68.2	58.8	55.8
82.5°	48.7	44.4	49.6	42.7	40.9
85°	31.0	26.4	27.9	24.8	23.2
87.5°	18.3	15.1	15.1	14.3	12.4
90°	10.8	12.9	13.6	15.7	12.6
92.5°	19.7	18.2	17.5	20.1	18.7
95°	34.2	42.8	24.9	24.0	26.7
97.5°	45.7	71.7	132.1	40.3	33.7
100°	54.7	85.8	257.9	77.6	50.9
102.5°	63.8	97.8	347.1	198.5	108.0
105°	77.4	111.5	393.1	497.7	328.3
107.5°	92.5	116.6	375.5	723.6	676.4
110°	101.6	125.2	365.2	760.3	815.4



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	111.9	135.5	354.9	738.9	832.6
115°	125.8	149.4	339.4	697.3	813.3
117.5°	141.3	164.9	335.5	652.3	771.7
120°	152.1	175.2	328.7	618.1	742.5
122.5°	160.7	184.3	318.9	588.7	703.0
125°	174.2	197.3	320.1	553.2	652.4
127.5°	185.1	209.8	319.0	511.6	609.9
130°	191.9	217.1	320.7	482.8	577.2
132.5°	198.0	223.2	318.2	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)