

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: P645019

Luminaire Tested: OMN4DIP-SR4F0-50D75U940-CLBOOB-1DUDD-WW

Issue Date: 2/16/2023



**Test Information**

Test Method: LM-79-2019  
Report Number: P645019  
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-SR4F0-50D75U940-CLBOOB-1DUDD-WW  
Description: NEO-RAY CIRQUE SUSPENDED LED LUMINAIRE  
DOWNLIGHT - BATWING LENS - 500 LUMENS PER FOOT  
UPLIGHT - BATWING OPTIC - 750 LUMENS PER FOOT  
Light Source: 4000K CCT, 90 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

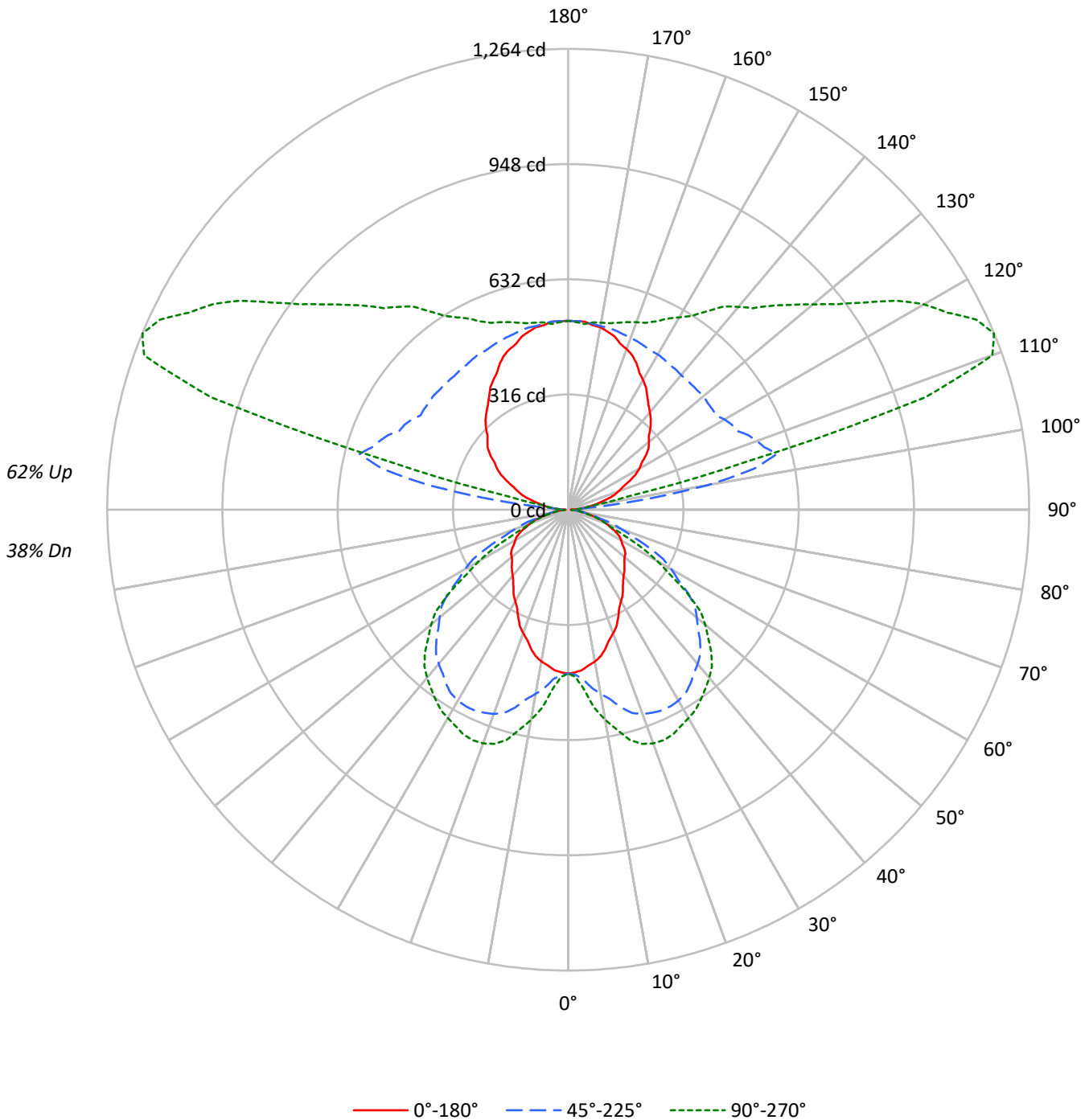
Lumens per Lamp: N/A  
Luminaire Lumens: 4522.0 lumens  
Efficiency: N/A  
Efficacy: 128.8 lumens/watt  
Spacing Criteria (0/90/45): 0.99 / 1.87 / 1.75  
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')  
CIE Type: Semi-Indirect

Input Watts (W): 35.1  
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	104	104	104	104	95	95	95	95	77	77	77	60	60	60	45	45	45	38				
1	95	91	87	84	86	83	80	77	67	65	63	53	52	50	40	39	38	32				
2	87	79	73	68	78	72	67	63	59	55	52	47	44	42	35	34	32	27				
3	79	70	63	57	71	64	57	52	52	47	44	41	38	35	31	29	27	23				
4	72	62	54	48	65	56	49	44	46	41	37	37	33	30	28	25	23	19				
5	66	55	47	41	60	50	43	38	41	36	32	33	29	26	25	22	20	17				
6	61	49	41	35	55	45	38	33	37	31	27	29	25	23	22	20	18	15				
7	56	44	36	31	51	40	33	28	33	28	24	27	23	20	20	18	16	13				
8	52	40	32	27	47	36	30	25	30	25	21	24	20	17	19	16	14	11				
9	48	36	29	24	44	33	26	22	27	22	19	22	18	16	17	14	12	10				
10	45	33	26	21	41	30	24	20	25	20	17	20	17	14	16	13	11	9				

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

	0°	45°	90°
0°	7261	7261	7261
5°	7152	7559	8000
10°	6927	8402	9584
15°	6591	9387	10927
20°	6199	10242	11716
25°	5776	10824	12111
30°	5401	11270	12303
35°	5154	11503	12512
40°	4983	11639	12676
45°	4991	11677	12680
50°	5069	11560	12321
55°	5301	11336	11187
60°	5402	10537	9084
65°	5475	9230	6674
70°	5235	7256	5183
75°	4697	5415	4373
80°	3989	4277	3505
85°	3872	3483	2908

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 12680 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	46.1	1.0
10°-20°	153.3	3.4
20°-30°	254.6	5.6
30°-40°	321.2	7.1
40°-50°	343.4	7.6
50°-60°	303.1	6.7
60°-70°	194.5	4.3
70°-80°	86.3	1.9
80°-90°	23.5	0.5
90°-100°	69.6	1.5
100°-110°	457.4	10.1
110°-120°	618.7	13.7
120°-130°	503.1	11.1
130°-140°	403.3	8.9
140°-150°	317.8	7.0
150°-160°	232.4	5.1
160°-170°	144.4	3.2
170°-180°	49.2	1.1
0°-30°	454.0	10.0
0°-40°	775.2	17.1
0°-60°	1421.7	31.4
0°-90°	1726.0	38.2
90°-120°	1145.7	25.3
90°-150°	2370.0	52.4
90°-180°	2796.0	61.8
0°-180°	4522.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	450	450	450	450	450	
5°	441	455	466	482	494	41
15°	394	455	562	629	654	110
25°	324	440	608	664	680	149
35°	262	402	584	622	635	164
45°	219	343	511	543	555	169
55°	188	270	403	405	397	167
65°	143	181	242	196	175	140
75°	75	84	87	74	70	80
85°	21	18	19	17	16	22
90°	7	10	13	16	14	6
95°	38	56	31	33	38	38
105°	108	161	593	754	498	115
115°	184	222	511	1057	1234	183
125°	260	295	482	838	990	231
135°	319	354	482	689	791	246
145°	378	410	485	601	664	237
155°	443	459	495	544	570	203
165°	492	498	508	521	531	138
175°	518	521	518	514	511	49
180°	518	518	518	518	518	

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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	449.7	449.7	449.7	449.7	449.7
2.5°	446.4	452.9	453.1	455.6	458.9
5°	441.3	454.6	466.4	482.4	493.6
7.5°	430.9	454.6	492.4	529.4	547.8
10°	422.5	455.2	512.5	562.1	584.6
12.5°	411.6	455.0	532.5	592.3	618.1
15°	394.3	454.6	561.6	629.1	653.7
17.5°	374.2	452.7	584.4	652.1	673.5
20°	360.8	450.8	596.1	660.4	681.9
22.5°	345.8	446.4	602.8	664.6	684.4
25°	324.2	439.8	607.6	664.5	679.8
27.5°	303.1	430.3	607.8	656.0	669.1
30°	289.7	422.6	604.5	647.7	659.9
32.5°	278.0	414.2	597.8	637.6	650.7
35°	261.5	401.6	583.6	621.5	634.8
37.5°	247.2	387.1	565.6	602.6	618.1
40°	236.4	375.4	552.2	589.1	601.4
42.5°	228.0	363.0	536.3	572.3	583.0
45°	218.6	343.3	511.4	543.1	555.3
47.5°	208.5	323.1	482.8	512.6	520.6
50°	201.8	308.2	460.2	487.4	490.5
52.5°	197.7	292.6	438.4	455.6	456.2
55°	188.3	270.1	402.7	404.6	397.4
57.5°	175.7	243.8	357.3	347.0	329.9
60°	167.3	225.6	326.3	305.9	281.3
62.5°	159.0	208.3	293.7	260.6	232.0
65°	143.3	181.1	241.6	196.1	174.7
67.5°	125.1	151.3	189.7	146.7	132.4
70°	110.9	131.3	153.7	120.0	109.8
72.5°	97.5	111.4	124.5	99.2	93.9
75°	75.3	83.5	86.8	74.2	70.1
77.5°	55.4	55.8	60.2	52.2	50.2
80°	42.9	40.8	46.0	39.7	37.7
82.5°	32.8	30.0	33.5	28.8	27.6
85°	20.9	17.8	18.8	16.7	15.7
87.5°	12.3	10.5	10.9	10.7	9.5
90°	7.3	10.5	12.8	16.0	14.0
92.5°	17.6	18.4	19.8	24.8	25.3
95°	37.6	55.8	31.3	32.6	37.9
97.5°	56.5	99.9	195.5	58.6	49.9
100°	71.3	122.4	387.4	115.2	75.9
102.5°	86.1	140.5	522.9	299.7	163.7
105°	108.3	161.4	592.6	754.0	498.3
107.5°	131.5	170.4	565.9	1096.9	1026.5
110°	146.3	183.5	550.2	1152.5	1237.5



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	161.9	199.1	534.6	1120.0	1263.5
115°	184.3	221.5	511.2	1056.9	1234.2
117.5°	208.2	245.0	505.3	988.7	1171.1
120°	225.6	260.7	494.9	936.7	1126.8
122.5°	238.7	275.4	481.0	892.1	1066.8
125°	260.4	295.4	481.9	838.2	990.0
127.5°	278.2	314.7	481.5	775.4	925.5
130°	288.7	326.9	484.1	732.7	876.0
132.5°	300.0	338.2	482.4	713.9	831.7
135°	319.1	354.2	482.0	689.4	791.3
137.5°	335.4	373.0	482.0	662.4	749.7
140°	348.5	383.5	482.0	646.6	726.2
142.5°	361.5	394.0	484.6	628.3	702.8
145°	377.8	409.6	485.2	600.7	664.3
147.5°	397.3	425.3	489.1	580.8	629.8
150°	410.3	435.8	491.7	567.6	609.0
152.5°	423.4	446.3	491.7	557.0	590.7
155°	442.9	458.8	495.0	544.4	569.9
157.5°	458.5	473.8	498.9	536.4	554.9
160°	468.9	481.7	501.5	531.2	547.1
162.5°	476.8	489.5	504.1	528.5	539.3
165°	491.7	498.1	508.0	521.3	530.8
167.5°	500.2	505.9	511.3	517.9	523.7
170°	508.0	511.2	511.3	517.9	521.0
172.5°	510.6	516.4	513.9	515.3	518.4
175°	517.8	521.0	517.8	514.5	511.3
177.5°	517.8	520.3	517.8	517.7	515.2
180°	517.8	517.8	517.8	517.8	517.8

(END OF REPORT)