

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: P645182

Luminaire Tested: OMN4DIP-SR4F0-75D75U840-CLBOOB-1DUDD-WW

Issue Date: 2/16/2023



**Test Information**

Test Method: LM-79-2019  
Report Number: P645182  
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-SR4F0-75D75U840-CLBOOB-1DUDD-WW  
Description: NEO-RAY CIRQUE SUSPENDED LED LUMINAIRE  
DOWNLIGHT - BATWING LENS - 750 LUMENS PER FOOT  
UPLIGHT - BATWING OPTIC - 750 LUMENS PER FOOT  
Light Source: 4000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

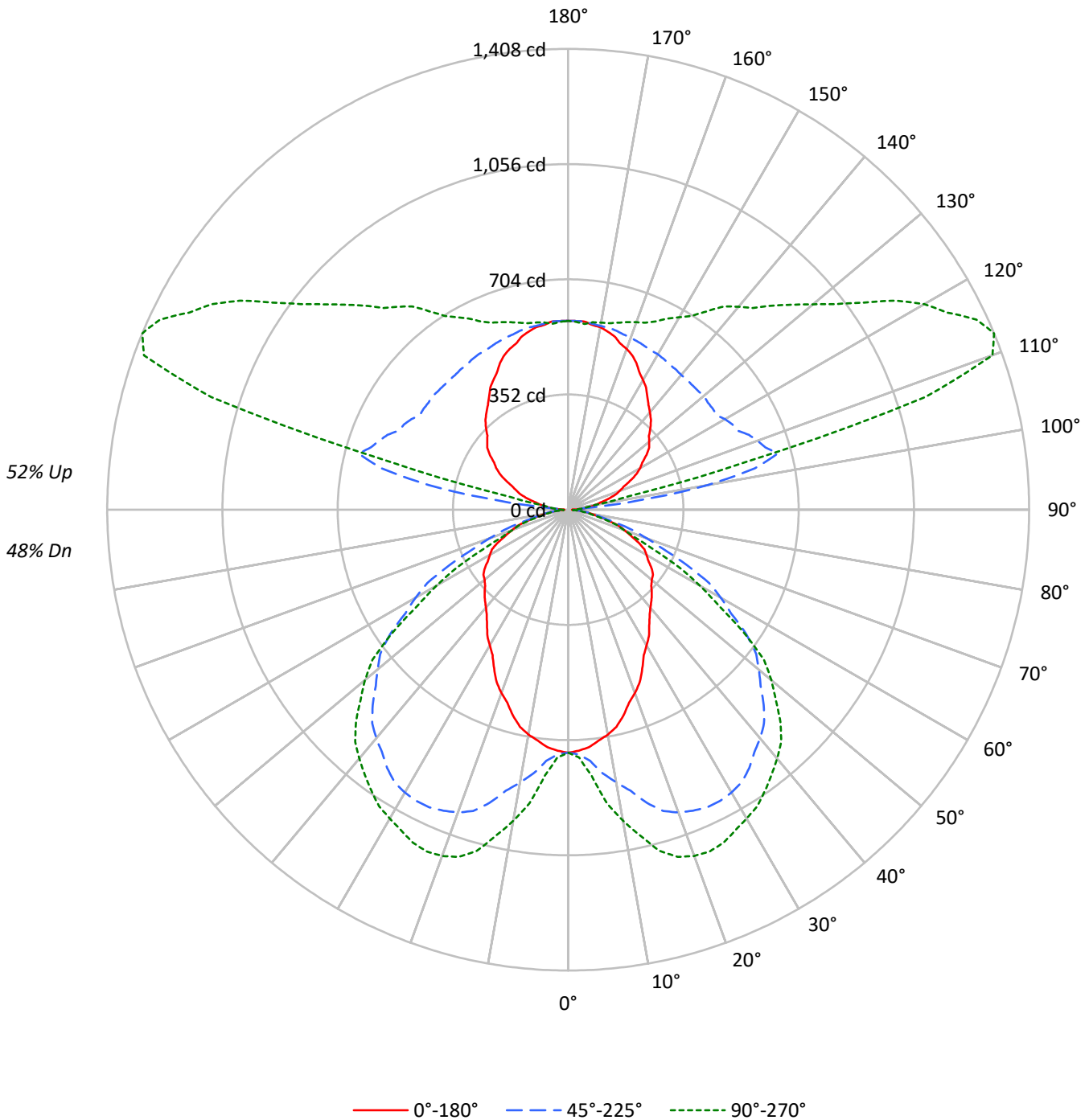
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 5972.6 lumens  
Efficiency: N/A  
Efficacy: 140.2 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): 42.6  
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	98	98	98	98	82	82	82	67	67	67	54	54	54	48	48	48	48	
1	97	93	89	86	89	86	83	80	72	70	68	60	58	56	48	47	46	40	40	40	40	
2	89	81	75	70	81	75	70	65	63	59	56	52	49	47	42	40	39	34	34	34	34	
3	81	71	64	58	74	66	60	54	56	51	47	46	43	40	37	35	33	29	29	29	29	
4	74	63	55	49	68	58	51	46	49	44	40	41	37	34	33	30	28	24	24	24	24	
5	68	56	48	42	62	52	45	39	44	38	34	37	32	29	30	27	24	21	21	21	21	
6	62	50	42	36	57	46	39	34	39	34	30	33	29	25	27	24	21	18	18	18	18	
7	57	45	37	31	53	42	35	30	36	30	26	30	25	22	24	21	19	16	16	16	16	
8	53	41	33	28	49	38	31	26	32	27	23	27	23	20	22	19	17	14	14	14	14	
9	49	37	30	24	45	34	28	23	29	24	20	25	21	18	20	17	15	13	13	13	13	
10	46	34	27	22	42	32	25	21	27	22	18	23	19	16	19	16	13	11	11	11	11	

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

	0°	45°	90°
0°	11988	11988	11988
5°	11810	12483	13211
10°	11437	13872	15826
15°	10882	15500	18041
20°	10237	16912	19345
25°	9536	17874	19996
30°	8917	18608	20314
35°	8509	18993	20660
40°	8226	19218	20927
45°	8241	19281	20936
50°	8372	19085	20343
55°	8749	18714	18472
60°	8922	17399	14999
65°	9039	15240	11018
70°	8639	11981	8559
75°	7754	8939	7218
80°	6583	7066	5783
85°	6391	5761	4798

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 20936 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	76.1	1.3
10°-20°	253.1	4.2
20°-30°	420.4	7.0
30°-40°	530.4	8.9
40°-50°	567.0	9.5
50°-60°	500.4	8.4
60°-70°	321.2	5.4
70°-80°	142.4	2.4
80°-90°	38.2	0.6
90°-100°	80.6	1.4
100°-110°	511.7	8.6
110°-120°	691.0	11.6
120°-130°	561.6	9.4
130°-140°	449.6	7.5
140°-150°	354.2	5.9
150°-160°	259.0	4.3
160°-170°	160.9	2.7
170°-180°	54.9	0.9
0°-30°	749.7	12.6
0°-40°	1280.0	21.4
0°-60°	2347.4	39.3
0°-90°	2849.2	47.7
90°-120°	1283.3	21.5
90°-150°	2648.7	44.3
90°-180°	3123.0	52.3
0°-180°	5972.6	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	742	742	742	742	742	
5°	729	751	770	796	815	68
15°	651	751	927	1039	1079	182
25°	535	726	1003	1097	1122	246
35°	432	663	964	1026	1048	271
45°	361	567	844	897	917	279
55°	311	446	665	668	656	276
65°	237	299	399	324	288	231
75°	124	138	143	122	116	133
85°	34	30	31	28	26	37
90°	12	16	18	21	18	10
95°	48	66	38	38	43	47
105°	125	183	662	841	555	132
115°	208	249	571	1178	1375	207
125°	292	331	539	934	1103	259
135°	356	395	537	768	882	274
145°	421	456	541	669	740	264
155°	494	511	552	607	635	227
165°	548	555	566	581	592	154
175°	577	580	577	573	570	55
180°	577	577	577	577	577	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	742.5	742.5	742.5	742.5	742.5
2.5°	737.0	747.8	748.1	752.3	757.7
5°	728.7	750.7	770.2	796.5	815.1
7.5°	711.5	750.6	813.0	874.1	904.5
10°	697.6	751.7	846.1	928.2	965.3
12.5°	679.7	751.3	879.3	978.0	1020.6
15°	651.0	750.6	927.3	1038.7	1079.3
17.5°	617.9	747.5	965.0	1076.6	1112.1
20°	595.8	744.3	984.3	1090.4	1125.9
22.5°	570.9	737.0	995.3	1097.3	1130.0
25°	535.3	726.1	1003.3	1097.1	1122.4
27.5°	500.4	710.5	1003.6	1083.2	1104.8
30°	478.3	697.8	998.1	1069.4	1089.6
32.5°	459.0	683.9	987.1	1052.8	1074.4
35°	431.7	663.0	963.6	1026.2	1048.2
37.5°	408.2	639.2	933.9	994.9	1020.6
40°	390.3	619.9	911.8	972.7	992.9
42.5°	376.4	599.3	885.5	945.0	962.5
45°	360.9	566.9	844.4	896.7	916.9
47.5°	344.3	533.4	797.1	846.4	859.6
50°	333.3	508.9	759.8	804.8	809.9
52.5°	326.4	483.1	723.9	752.2	753.2
55°	310.8	445.9	664.8	668.0	656.2
57.5°	290.1	402.6	589.9	573.0	544.6
60°	276.3	372.5	538.8	505.0	464.5
62.5°	262.5	343.9	484.9	430.3	383.0
65°	236.6	299.0	398.9	323.8	288.4
67.5°	206.5	249.8	313.2	242.3	218.6
70°	183.0	216.8	253.8	198.2	181.3
72.5°	160.9	183.9	205.5	163.8	155.1
75°	124.3	137.8	143.3	122.5	115.7
77.5°	91.5	92.2	99.5	86.3	82.9
80°	70.8	67.4	76.0	65.5	62.2
82.5°	54.2	49.5	55.3	47.6	45.6
85°	34.5	29.5	31.1	27.6	25.9
87.5°	20.4	17.0	17.3	16.6	14.6
90°	12.1	15.6	17.6	21.2	17.8
92.5°	24.9	24.4	24.9	30.1	29.5
95°	48.0	66.1	37.7	38.0	43.4
97.5°	68.5	115.2	219.9	66.4	56.2
100°	84.5	139.7	433.4	129.5	85.2
102.5°	100.5	160.0	584.3	334.6	182.5
105°	124.6	183.2	662.0	840.8	555.2
107.5°	150.4	192.7	632.2	1222.8	1143.8
110°	166.4	207.3	614.8	1284.8	1378.9



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	183.8	224.7	597.4	1248.6	1408.0
115°	208.2	249.1	571.3	1178.3	1375.3
117.5°	234.7	275.2	564.7	1102.2	1304.9
120°	253.7	292.7	553.1	1044.4	1255.6
122.5°	268.2	308.7	537.2	994.6	1188.8
125°	291.9	330.9	538.6	934.5	1103.2
127.5°	311.2	352.3	537.6	864.5	1031.3
130°	322.8	365.4	540.5	816.5	976.2
132.5°	334.5	377.1	537.8	795.5	926.8
135°	355.6	394.7	537.1	768.3	881.8
137.5°	373.8	415.6	537.1	738.1	835.4
140°	388.3	427.3	537.1	720.5	809.2
142.5°	402.8	439.0	540.0	700.1	783.1
145°	420.9	456.4	540.7	669.3	740.3
147.5°	442.7	473.9	545.0	647.2	701.8
150°	457.2	485.6	548.0	632.5	678.6
152.5°	471.7	497.3	548.0	620.7	658.3
155°	493.5	511.3	551.6	606.7	635.0
157.5°	510.9	528.0	555.9	597.8	618.3
160°	522.5	536.7	558.8	591.9	609.6
162.5°	531.3	545.5	561.7	588.9	600.9
165°	548.0	555.0	566.1	580.9	591.5
167.5°	557.4	563.8	569.7	577.1	583.5
170°	566.1	569.6	569.7	577.1	580.6
172.5°	569.0	575.4	572.6	574.2	577.7
175°	577.0	580.5	577.0	573.3	569.7
177.5°	577.0	579.8	577.0	576.9	574.1
180°	577.0	577.0	577.0	577.0	577.0

(END OF REPORT)