

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: P645103

Luminaire Tested: OMN4DIP-SR4F0-75D150U935-CLBOOB-1DUDD-WW

Issue Date: 2/16/2023



**Test Information**

Test Method: LM-79-2019  
Report Number: P645103  
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-SR4F0-75D150U935-CLBOOB-1DUDD-WW  
Description: NEO-RAY CIRQUE SUSPENDED LED LUMINAIRE  
DOWNLIGHT - BATWING LENS - 750 LUMENS PER FOOT  
UPLIGHT - BATWING OPTIC - 1500 LUMENS PER FOOT  
Light Source: 3500K CCT, 90 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

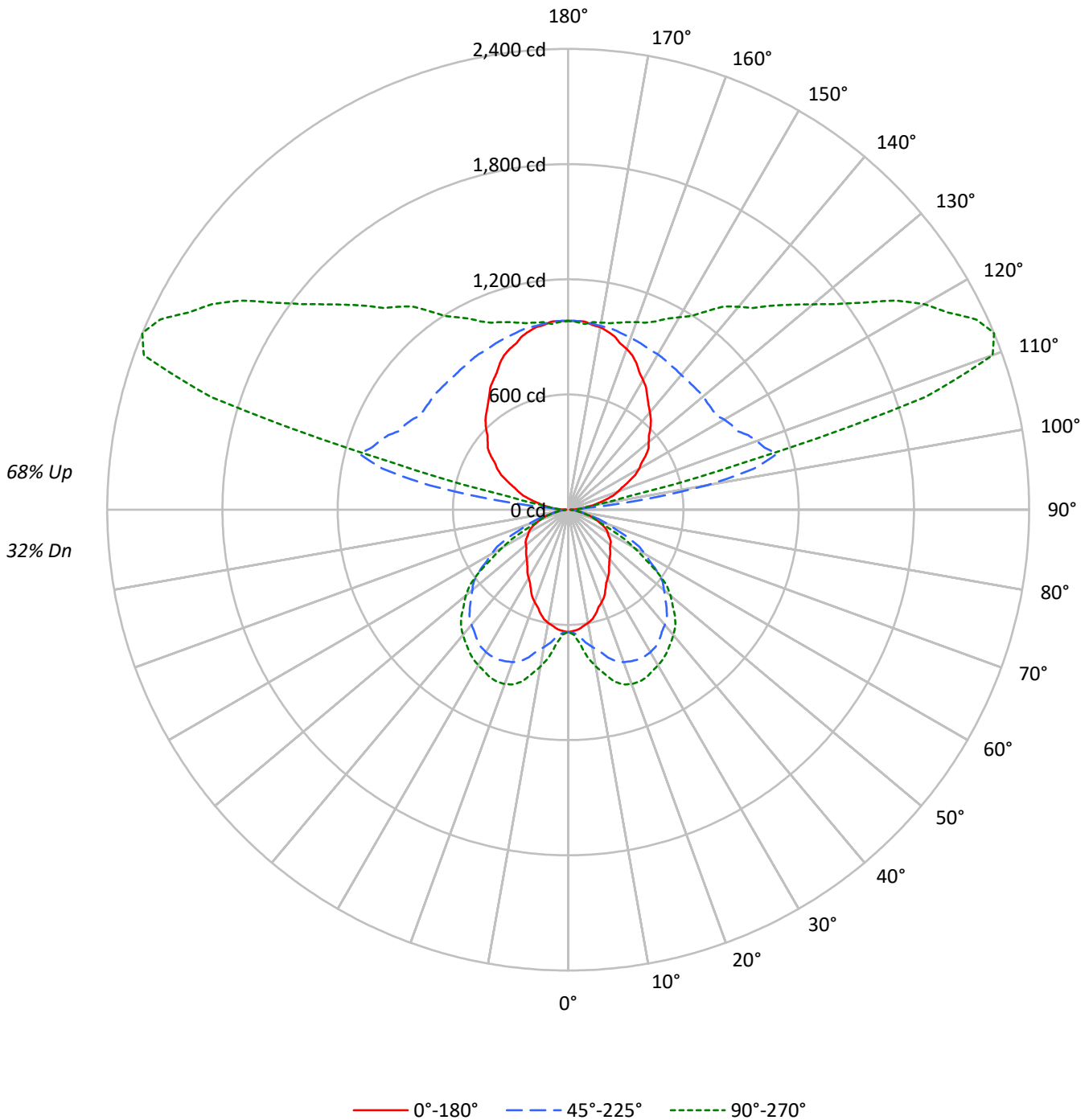
Lumens per Lamp: N/A  
Luminaire Lumens: 7750.1 lumens  
Efficiency: N/A  
Efficacy: 110.1 lumens/watt  
Spacing Criteria (0/90/45): 0.99 / 1.87 / 1.75  
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')  
CIE Type: Semi-Indirect

Input Watts (W): 70.4  
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	0
RCR																				
0	103	103	103	103	92	92	92	92	73	73	73		55	55	55		39	39	39	32
1	94	90	86	82	84	81	78	75	64	62	60		49	47	46		35	34	33	27
2	85	78	72	67	76	70	65	61	56	53	50		43	41	39		31	29	28	22
3	78	69	61	56	70	62	56	51	49	45	42		38	35	32		27	25	24	19
4	71	60	53	47	64	55	48	43	44	39	35		33	30	28		24	22	20	16
5	65	54	46	40	58	49	42	37	39	34	30		30	26	24		21	19	17	14
6	60	48	40	34	53	43	37	32	35	30	26		27	23	21		19	17	15	12
7	55	43	35	30	49	39	32	27	31	26	23		24	21	18		18	15	13	11
8	51	39	31	26	46	35	29	24	28	24	20		22	19	16		16	14	12	9
9	47	35	28	23	42	32	26	21	26	21	18		20	17	14		15	12	11	8
10	44	32	25	20	40	29	23	19	24	19	16		19	15	13		14	11	10	8

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

	0°	45°	90°
0°	10288	10288	10288
5°	10135	10712	11336
10°	9814	11904	13580
15°	9337	13300	15480
20°	8783	14512	16600
25°	8182	15337	17158
30°	7651	15968	17432
35°	7301	16297	17728
40°	7059	16491	17958
45°	7072	16545	17966
50°	7184	16377	17455
55°	7507	16059	15851
60°	7656	14928	12871
65°	7755	13077	9456
70°	7416	10282	7345
75°	6656	7673	6195
80°	5653	6062	4956
85°	5483	4946	4113

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 17966 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	65.3	0.8
10°-20°	217.2	2.8
20°-30°	360.8	4.7
30°-40°	455.1	5.9
40°-50°	486.5	6.3
50°-60°	429.4	5.5
60°-70°	275.6	3.6
70°-80°	122.2	1.6
80°-90°	33.9	0.4
90°-100°	129.3	1.7
100°-110°	867.1	11.2
110°-120°	1174.0	15.1
120°-130°	954.8	12.3
130°-140°	766.1	9.9
140°-150°	603.8	7.8
150°-160°	441.5	5.7
160°-170°	274.2	3.5
170°-180°	93.5	1.2
0°-30°	643.3	8.3
0°-40°	1098.4	14.2
0°-60°	2014.3	26.0
0°-90°	2446.0	31.6
90°-120°	2170.3	28.0
90°-150°	4495.0	58.0
90°-180°	5304.0	68.4
0°-180°	7750.1	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	637	637	637	637	637	
5°	625	644	661	683	699	59
15°	559	644	796	891	926	156
25°	459	623	861	941	963	211
35°	370	569	827	881	899	233
45°	310	486	725	769	787	239
55°	267	383	570	573	563	237
65°	203	257	342	278	248	199
75°	107	118	123	105	99	114
85°	30	25	27	24	22	31
90°	10	16	21	27	24	9
95°	66	102	57	60	71	67
105°	202	304	1124	1432	946	214
115°	348	419	970	2007	2344	345
125°	493	560	914	1592	1881	438
135°	606	673	916	1310	1503	467
145°	718	778	922	1141	1262	451
155°	841	872	940	1034	1083	386
165°	934	946	965	990	1008	262
175°	984	990	984	977	971	93
180°	984	984	984	984	984	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	637.2	637.2	637.2	637.2	637.2
2.5°	632.4	641.7	641.9	645.6	650.2
5°	625.3	644.1	660.9	683.4	699.4
7.5°	610.5	644.1	697.6	750.1	776.1
10°	598.6	645.0	726.1	796.4	828.3
12.5°	583.2	644.6	754.5	839.2	875.7
15°	558.6	644.1	795.7	891.3	926.1
17.5°	530.2	641.4	828.0	923.8	954.2
20°	511.2	638.7	844.6	935.7	966.1
22.5°	489.9	632.4	854.1	941.5	969.7
25°	459.3	623.1	860.9	941.4	963.1
27.5°	429.4	609.6	861.2	929.5	948.0
30°	410.4	598.8	856.5	917.6	935.0
32.5°	393.8	586.8	847.0	903.4	921.9
35°	370.4	568.9	826.8	880.6	899.4
37.5°	350.3	548.5	801.3	853.7	875.7
40°	334.9	531.9	782.4	834.6	852.0
42.5°	323.0	514.3	759.8	810.9	825.9
45°	309.7	486.4	724.6	769.4	786.8
47.5°	295.5	457.7	684.0	726.3	737.6
50°	286.0	436.7	652.0	690.6	694.9
52.5°	280.1	414.5	621.1	645.5	646.3
55°	266.7	382.6	570.5	573.2	563.1
57.5°	248.9	345.4	506.2	491.7	467.3
60°	237.1	319.7	462.3	433.4	398.6
62.5°	225.2	295.1	416.1	369.2	328.7
65°	203.0	256.6	342.3	277.9	247.5
67.5°	177.2	214.3	268.8	207.9	187.6
70°	157.1	186.0	217.8	170.1	155.6
72.5°	138.1	157.8	176.3	140.6	133.1
75°	106.7	118.3	123.0	105.1	99.3
77.5°	78.5	79.1	85.3	74.0	71.1
80°	60.8	57.9	65.2	56.2	53.3
82.5°	46.5	42.5	47.4	40.9	39.1
85°	29.6	25.3	26.7	23.7	22.2
87.5°	17.5	15.2	16.1	16.1	14.4
90°	10.4	16.4	21.3	27.4	24.5
92.5°	28.8	31.3	34.9	44.9	46.9
95°	65.8	102.3	56.9	60.4	71.0
97.5°	102.4	186.3	369.4	110.2	94.3
100°	130.9	229.4	734.4	217.8	143.8
102.5°	159.4	263.9	991.8	568.8	310.8
105°	202.1	303.5	1124.1	1431.8	946.5
107.5°	246.4	321.2	1073.4	2083.2	1949.9
110°	274.9	346.0	1043.7	2188.9	2350.7



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	304.6	375.7	1014.0	2127.1	2400.2
115°	347.6	418.8	969.5	2007.3	2344.5
117.5°	393.1	463.3	958.3	1877.6	2224.5
120°	426.6	493.1	938.6	1778.9	2140.4
122.5°	451.3	521.5	912.6	1694.1	2026.6
125°	493.2	559.7	913.8	1591.7	1880.6
127.5°	527.5	596.5	913.6	1472.6	1758.1
130°	547.3	619.9	918.5	1391.9	1664.1
132.5°	569.7	642.3	916.1	1356.1	1579.9
135°	606.2	672.8	915.5	1309.7	1503.2
137.5°	637.2	708.5	915.5	1258.3	1424.0
140°	661.9	728.5	915.5	1228.3	1379.5
142.5°	686.7	748.4	920.5	1193.4	1335.0
145°	717.6	778.1	921.7	1141.0	1262.0
147.5°	754.7	807.9	929.2	1103.2	1196.4
150°	779.5	827.8	934.1	1078.2	1156.8
152.5°	804.2	847.7	934.1	1058.0	1122.2
155°	841.3	871.6	940.3	1034.2	1082.6
157.5°	871.0	900.0	947.7	1019.0	1054.1
160°	890.8	915.0	952.7	1009.0	1039.3
162.5°	905.7	929.8	957.6	1003.9	1024.4
165°	934.1	946.2	965.0	990.2	1008.3
167.5°	950.2	961.1	971.2	983.8	994.7
170°	965.0	971.1	971.2	983.7	989.8
172.5°	970.0	980.9	976.2	978.8	984.8
175°	983.6	989.6	983.6	977.3	971.2
177.5°	983.6	988.4	983.6	983.5	978.6
180°	983.6	983.6	983.6	983.6	983.6

(END OF REPORT)