

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: P644786

Luminaire Tested: OMN4DIP-SR4F0-125D50U830-FLLOOB-1DUDD-WW

Issue Date: 2/16/2023



**Test Information**

Test Method: LM-79-2019  
Report Number: P644786  
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-SR4F0-125D50U830-FLLOOB-1DUDD-WW  
Description: NEO-RAY CIRQUE SUSPENDED LED LUMINAIRE  
DOWNLIGHT - FLAT FROSTED LENS - 1250 LUMENS PER FOOT  
UPLIGHT - BATWING OPTIC - 500 LUMENS PER FOOT  
Light Source: 3000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

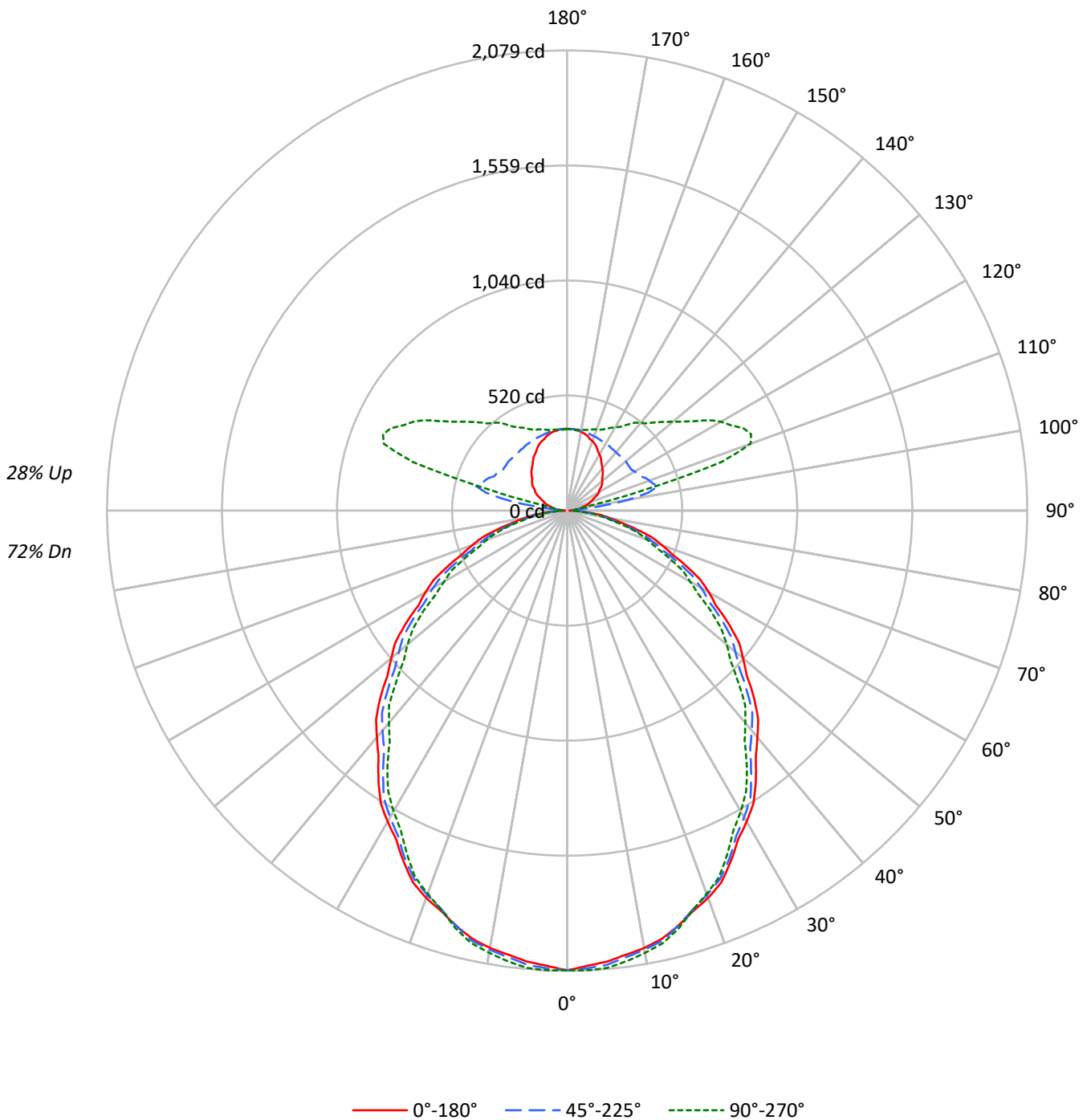
Lumens per Lamp: N/A  
Luminaire Lumens: 7048.0 lumens  
Efficiency: N/A  
Efficacy: 129.1 lumens/watt  
Spacing Criteria (0/90/45): 1.17 / 1.13 / 1.26  
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')  
CIE Type: Semi-Direct

Input Watts (W): 54.6  
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										
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	50	30	10	0														
RCR																																						
0	112	112	112	112	106	106	106	106	95	95	95	85	85	85	76	76	76	76	76	76	76	76	76	72														
1	103	98	94	91	97	93	90	87	84	81	79	75	73	71	67	66	64	64	64	64	64	64	64	60														
2	94	86	80	74	88	82	76	71	74	69	65	66	63	60	59	57	54	54	54	54	54	54	54	51														
3	86	76	68	62	81	72	65	60	65	60	55	59	54	51	53	49	46	46	46	46	46	46	46	43														
4	78	67	59	53	74	64	57	51	58	52	47	52	48	44	47	43	40	40	40	40	40	40	40	37														
5	72	60	52	46	68	57	50	44	52	46	41	47	42	38	43	39	35	35	35	35	35	35	35	32														
6	67	54	46	40	63	52	44	39	47	41	36	43	38	34	39	35	31	31	31	31	31	31	31	29														
7	62	49	41	35	58	47	39	34	43	37	32	39	34	30	36	31	28	28	28	28	28	28	28	25														
8	57	45	37	31	54	43	36	30	39	33	29	36	31	27	33	28	25	25	25	25	25	25	25	23														
9	54	41	33	28	51	39	32	27	36	30	26	33	28	24	30	26	23	23	23	23	23	23	23	21														
10	50	38	30	25	48	36	29	25	33	27	23	31	26	22	28	24	21	21	21	21	21	21	21	19														

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

	0°	45°	90°
0°	33532	33532	33532
5°	33156	33386	33614
10°	32891	33029	33262
15°	32448	32448	32637
20°	31995	31751	31654
25°	31158	30907	30505
30°	30238	29817	29237
35°	29296	28570	27902
40°	28169	27335	26382
45°	27227	26195	24905
50°	26048	24912	23634
55°	25056	23783	22351
60°	23906	22627	20712
65°	22670	21051	19431
70°	21475	19473	18142
75°	20093	17804	16924
80°	18391	16290	15500
85°	17266	15172	14135

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 27227 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	195.4	2.8
10°-20°	548.2	7.8
20°-30°	797.1	11.3
30°-40°	906.7	12.9
40°-50°	884.1	12.5
50°-60°	754.7	10.7
60°-70°	548.4	7.8
70°-80°	310.1	4.4
80°-90°	96.3	1.4
90°-100°	57.4	0.8
100°-110°	329.9	4.7
110°-120°	442.8	6.3
120°-130°	359.5	5.1
130°-140°	287.4	4.1
140°-150°	226.4	3.2
150°-160°	165.6	2.3
160°-170°	102.8	1.5
170°-180°	35.1	0.5
0°-30°	1540.7	21.9
0°-40°	2447.5	34.7
0°-60°	4086.2	58.0
0°-90°	5041.1	71.5
90°-120°	830.1	11.8
90°-150°	1703.4	24.2
90°-180°	2007.0	28.5
0°-180°	7048.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2077	2077	2077	2077	2077	
5°	2046	2076	2060	2057	2074	194
15°	1941	1966	1941	1939	1952	547
25°	1749	1766	1735	1704	1712	805
35°	1486	1492	1450	1416	1416	928
45°	1192	1187	1147	1107	1091	918
55°	890	887	845	805	794	794
65°	593	588	551	517	509	589
75°	322	311	285	274	271	342
85°	93	82	82	79	76	100
90°	11	16	22	21	21	12
95°	41	46	27	29	31	38
105°	86	119	426	539	355	92
115°	136	160	365	752	879	136
125°	189	214	344	596	705	167
135°	227	252	343	491	564	175
145°	269	292	346	428	473	169
155°	316	327	353	388	406	145
165°	350	355	362	371	378	98
175°	369	371	369	366	364	35
180°	369	369	369	369	369	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2076.8	2076.8	2076.8	2076.8	2076.8
2.5°	2058.7	2085.2	2070.0	2070.2	2079.1
5°	2045.7	2076.1	2059.9	2057.4	2074.0
7.5°	2024.2	2054.1	2035.0	2032.1	2053.6
10°	2006.2	2033.8	2014.6	2009.4	2028.8
12.5°	1981.3	2008.9	1989.8	1982.3	2001.6
15°	1941.2	1966.0	1941.2	1938.7	1952.5
17.5°	1896.0	1917.5	1888.6	1879.3	1889.8
20°	1862.1	1881.4	1847.9	1834.0	1842.3
22.5°	1819.1	1838.5	1802.7	1782.1	1792.6
25°	1749.0	1765.6	1734.9	1704.0	1712.3
27.5°	1673.9	1686.6	1655.8	1624.2	1627.0
30°	1621.9	1630.2	1599.3	1565.4	1568.2
32.5°	1567.6	1573.7	1540.5	1504.4	1504.9
35°	1486.3	1491.8	1449.5	1415.6	1415.6
37.5°	1399.8	1403.1	1358.0	1321.2	1317.3
40°	1336.5	1342.0	1296.9	1260.0	1251.7
42.5°	1277.7	1278.8	1238.2	1201.2	1190.7
45°	1192.4	1186.9	1147.2	1107.3	1090.7
47.5°	1100.3	1100.3	1055.1	1015.2	999.7
50°	1037.0	1037.0	991.8	952.0	940.9
52.5°	978.2	976.0	933.0	893.1	877.6
55°	890.1	887.3	844.9	805.0	794.0
57.5°	796.8	796.8	757.3	714.6	702.4
60°	740.3	740.3	700.7	658.0	641.4
62.5°	679.3	677.1	637.5	599.4	589.4
65°	593.4	587.8	551.0	516.9	508.6
67.5°	511.4	505.9	466.8	439.5	434.0
70°	454.9	449.4	412.5	389.8	384.3
72.5°	400.7	392.9	360.5	342.3	336.8
75°	322.1	311.1	285.4	274.0	271.3
77.5°	247.5	228.7	218.1	210.2	207.4
80°	197.8	181.2	175.2	169.5	166.7
82.5°	154.8	138.3	136.8	133.3	130.5
85°	93.2	82.2	81.9	79.1	76.3
87.5°	40.7	35.1	36.0	35.9	35.9
90°	11.3	16.3	21.6	21.1	21.1
92.5°	25.9	22.1	22.6	26.2	25.8
95°	41.2	46.0	27.0	29.4	31.2
97.5°	52.7	77.6	144.3	45.3	37.6
100°	63.9	94.1	279.4	83.4	56.2
102.5°	72.7	104.8	375.9	215.4	117.0
105°	86.0	119.1	425.6	539.2	354.9
107.5°	102.2	126.2	406.5	783.4	731.2
110°	111.1	135.5	395.4	823.1	881.6



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CATALOG NUMBER: OMN4DIP-SR4F0-125D50U830-FLLOOB-1DUDD-WW

**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	122.2	146.7	384.3	799.9	900.1
115°	136.1	160.5	364.7	752.2	879.2
117.5°	153.2	177.2	360.6	703.6	834.2
120°	166.2	188.4	353.1	666.6	802.7
122.5°	173.2	199.5	343.8	634.8	760.0
125°	188.9	213.9	343.8	596.4	705.2
127.5°	199.6	227.2	344.3	551.8	659.3
130°	207.0	234.2	346.2	522.0	624.1
132.5°	214.0	241.2	343.9	508.6	592.5
135°	227.3	252.3	343.3	491.1	563.7
137.5°	238.9	265.7	343.3	471.9	534.0
140°	248.2	273.2	343.3	460.6	517.3
142.5°	257.5	280.6	345.2	447.6	500.6
145°	269.1	291.8	345.7	427.9	473.3
147.5°	283.0	303.0	348.4	413.7	448.7
150°	292.3	310.5	350.3	404.3	433.8
152.5°	301.6	317.9	350.3	396.8	420.8
155°	315.5	326.8	352.6	387.8	406.0
157.5°	326.6	337.5	355.4	382.2	395.3
160°	334.1	343.1	357.3	378.4	389.7
162.5°	339.6	348.7	359.1	376.5	384.2
165°	350.3	354.8	361.9	371.3	378.1
167.5°	356.3	360.4	364.2	369.0	373.0
170°	361.9	364.2	364.2	368.9	371.2
172.5°	363.8	367.8	366.1	367.1	369.3
175°	368.9	371.1	368.9	366.5	364.2
177.5°	368.9	370.7	368.9	368.8	367.0
180°	368.9	368.9	368.9	368.9	368.9

(END OF REPORT)