

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: P645222

Luminaire Tested: OMN4DP-SR4F0-125D830-FLL-1DUDD-WW

Issue Date: 2/16/2023



**Test Information**

Test Method: LM-79-2019  
Report Number: P645222  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2206-689-19)  
Test Lab: INNOVATION CENTER  
Issue Date: 2/16/2023  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: OMN4DP-SR4F0-125D830-FLL-1DUDD-WW  
Description: NEO-RAY CIRQUE SUSPENDED LED LUMINAIRE  
DOWNLIGHT - FLAT FROSTED LENS - 1250 LUMENS PER FOOT  
DIRECT ONLY  
Light Source: 3000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

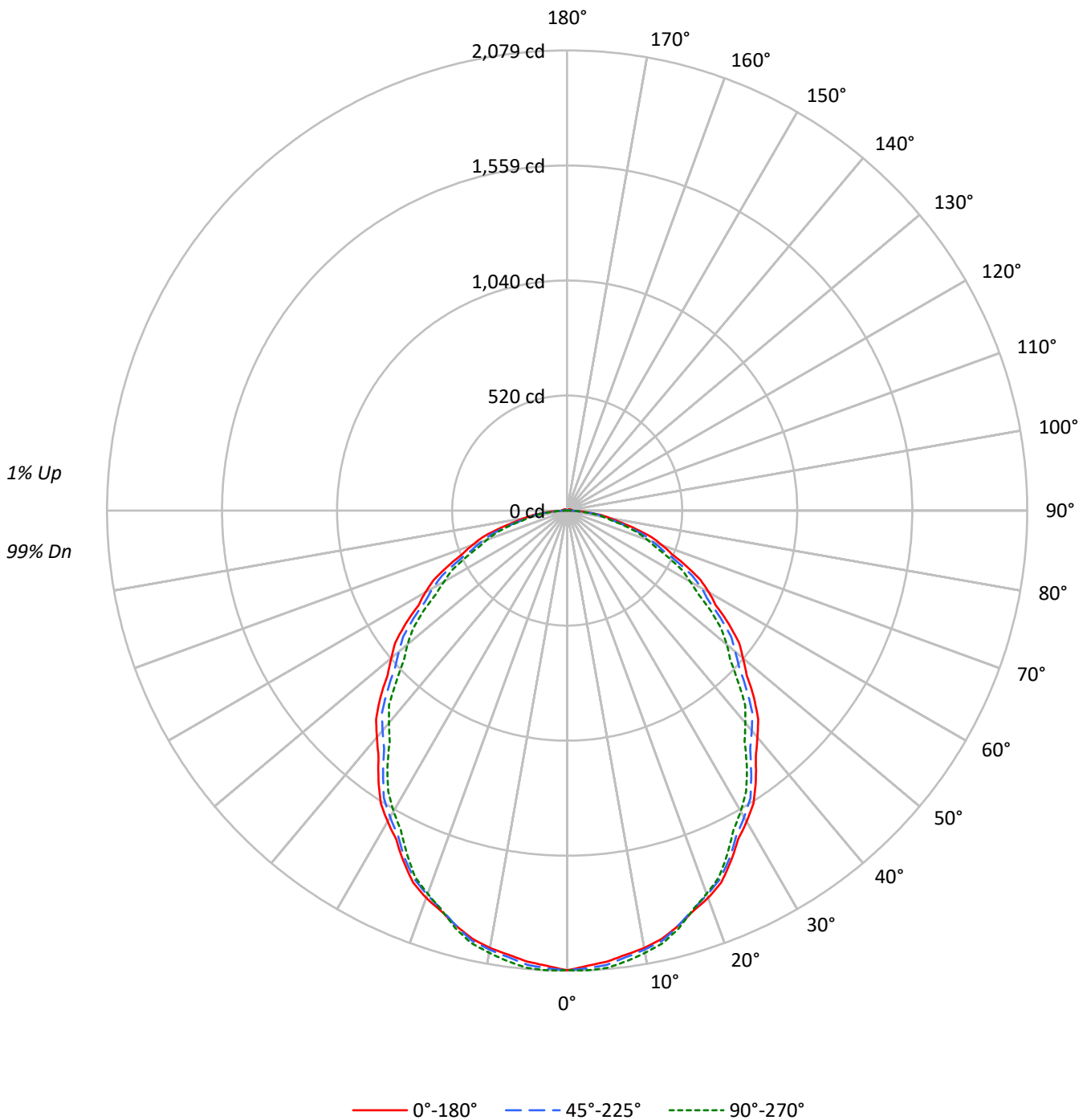
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 5065.8 lumens  
Efficiency: N/A  
Efficacy: 126.6 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: Direct

Input Watts (W): 40  
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	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	99																				
1	109	104	100	96	106	102	98	95	98	95	92	94	91	89	90	88	86	84																				
2	99	91	85	79	97	90	83	78	86	81	76	83	78	75	80	76	73	71																				
3	91	81	73	67	89	79	72	66	76	70	65	73	68	63	71	66	62	60																				
4	84	72	63	57	81	71	63	56	68	61	56	66	60	55	63	58	54	52																				
5	77	65	56	49	75	63	55	49	61	54	48	59	53	48	57	52	47	45																				
6	71	58	50	43	69	57	49	43	55	48	43	54	47	42	52	46	42	40																				
7	66	53	44	38	65	52	44	38	51	43	38	49	43	38	48	42	37	35																				
8	62	49	40	34	60	48	40	34	46	39	34	45	39	34	44	38	34	32																				
9	58	45	37	31	56	44	36	31	43	36	31	42	35	31	41	35	31	29																				
10	54	41	34	28	53	41	33	28	40	33	28	39	32	28	38	32	28	26																				

**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	3.9
10°-20°	548.2	10.8
20°-30°	797.1	15.7
30°-40°	906.7	17.9
40°-50°	884.1	17.5
50°-60°	754.7	14.9
60°-70°	548.4	10.8
70°-80°	310.1	6.1
80°-90°	95.5	1.9
90°-100°	12.0	0.2
100°-110°	6.7	0.1
110°-120°	4.1	0.1
120°-130°	2.4	0.0
130°-140°	0.3	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	1540.7	30.4
0°-40°	2447.5	48.3
0°-60°	4086.2	80.7
0°-90°	5040.3	99.5
90°-120°	22.9	0.5
90°-150°	25.5	0.5
90°-180°	26.0	0.5
0°-180°	5065.8	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	14	17	14	14	11
95°	23	12	8	8	6	17
105°	14	9	6	3	0	16
115°	8	6	3	0	0	10
125°	6	6	3	0	0	5
135°	0	0	0	0	0	0
145°	0	0	0	0	0	0
155°	0	0	0	0	0	0
165°	0	0	0	0	0	0
175°	0	0	0	0	0	0
180°	0	0	0	0	0	0



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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	34.6	35.0	34.5	34.5
90°	11.3	14.1	17.0	14.1	14.1
92.5°	20.3	14.3	12.4	11.8	9.6
95°	22.6	11.6	8.5	8.4	5.7
97.5°	19.8	11.5	7.9	5.0	2.8
100°	19.8	11.5	5.7	2.8	2.8
102.5°	17.5	9.2	5.7	2.8	0.6
105°	14.1	8.6	5.7	2.8	0.0
107.5°	13.6	8.6	5.7	2.8	0.0
110°	11.3	8.5	5.7	2.8	0.0



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CATALOG NUMBER: OMN4DP-SR4F0-125D830-FLL-1DUDD-WW

**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	11.3	8.5	5.7	2.8	0.0
115°	8.5	5.7	2.8	0.0	0.0
117.5°	8.5	5.7	2.8	0.0	0.0
120°	8.5	5.7	2.8	0.0	0.0
122.5°	6.2	5.7	2.8	0.0	0.0
125°	5.7	5.7	2.8	0.0	0.0
127.5°	2.8	5.0	2.8	0.0	0.0
130°	2.8	2.8	2.8	0.0	0.0
132.5°	0.6	0.6	0.6	0.0	0.0
135°	0.0	0.0	0.0	0.0	0.0
137.5°	0.0	0.0	0.0	0.0	0.0
140°	0.0	0.0	0.0	0.0	0.0
142.5°	0.0	0.0	0.0	0.0	0.0
145°	0.0	0.0	0.0	0.0	0.0
147.5°	0.0	0.0	0.0	0.0	0.0
150°	0.0	0.0	0.0	0.0	0.0
152.5°	0.0	0.0	0.0	0.0	0.0
155°	0.0	0.0	0.0	0.0	0.0
157.5°	0.0	0.0	0.0	0.0	0.0
160°	0.0	0.0	0.0	0.0	0.0
162.5°	0.0	0.0	0.0	0.0	0.0
165°	0.0	0.0	0.0	0.0	0.0
167.5°	0.0	0.0	0.0	0.0	0.0
170°	0.0	0.0	0.0	0.0	0.0
172.5°	0.0	0.0	0.0	0.0	0.0
175°	0.0	0.0	0.0	0.0	0.0
177.5°	0.0	0.0	0.0	0.0	0.0
180°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)