

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: P645240

Luminaire Tested: OMN4DP-SR4F0-50D830-FLL-1DUDD-WW

Issue Date: 2/16/2023



**Test Information**

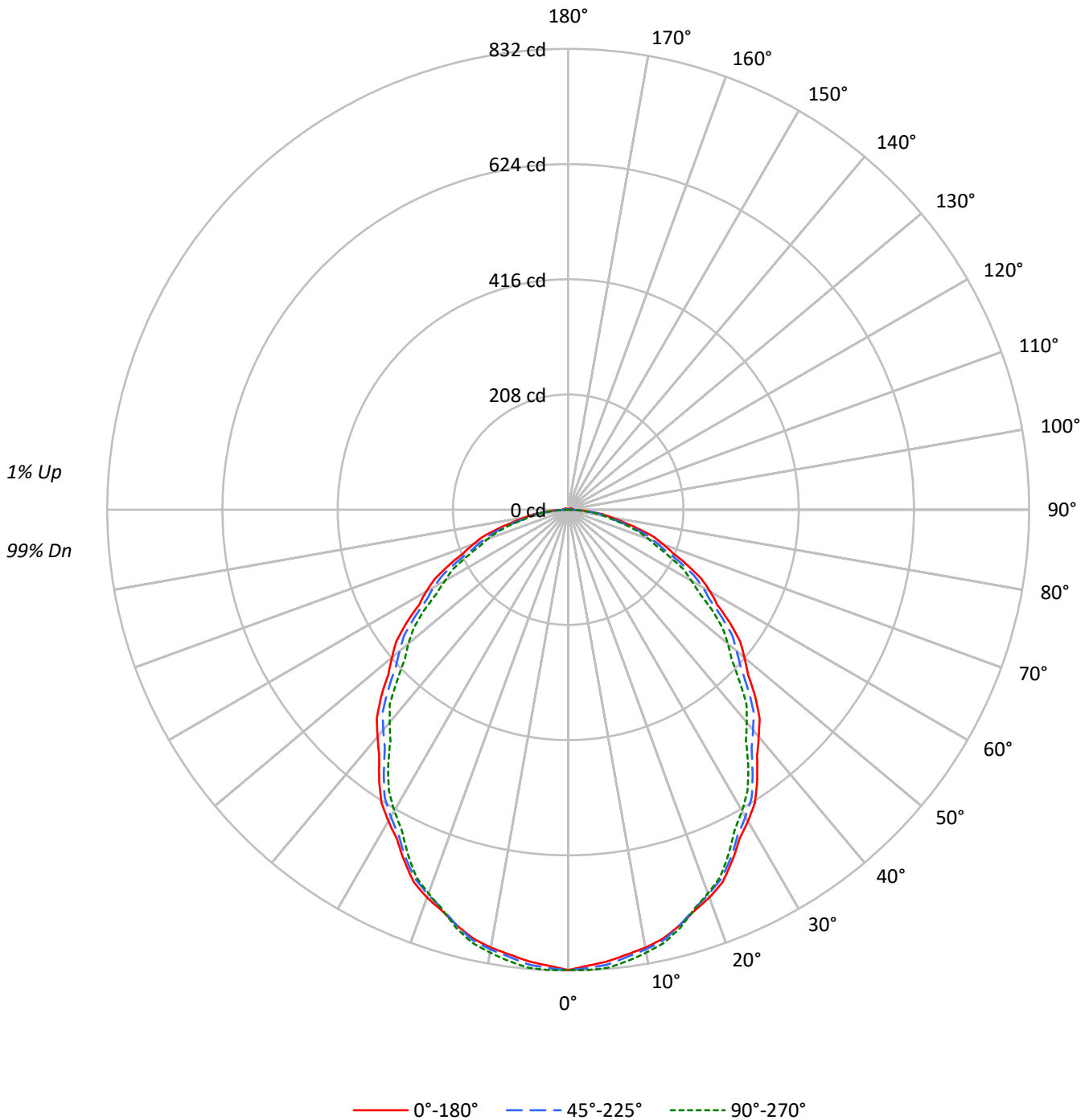
Test Method: LM-79-2019  
Report Number: P645240  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2206-689-19)  
Test Lab: INNOVATION CENTER  
Issue Date: 2/16/2023  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: OMN4DP-SR4F0-50D830-FLL-1DUDD-WW  
Description: NEO-RAY CIRQUE SUSPENDED LED LUMINAIRE  
DOWNLIGHT - FLAT FROSTED LENS - 500 LUMENS PER FOOT  
DIRECT ONLY  
Light Source: 3000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2027.0 lumens  
Efficiency: N/A  
Efficacy: 141.7 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): 14.3  
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	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°	13417	13417	13417
5°	13267	13358	13451
10°	13162	13218	13309
15°	12985	12985	13060
20°	12802	12704	12667
25°	12469	12367	12207
30°	12100	11930	11699
35°	11722	11432	11166
40°	11272	10939	10557
45°	10894	10481	9965
50°	10422	9970	9457
55°	10027	9517	8943
60°	9565	9055	8289
65°	9070	8424	7775
70°	8592	7794	7260
75°	8041	7124	6769
80°	7355	6518	6202
85°	6910	6076	5650

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 10894 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	78.2	3.9
10°-20°	219.4	10.8
20°-30°	319.0	15.7
30°-40°	362.8	17.9
40°-50°	353.8	17.5
50°-60°	302.0	14.9
60°-70°	219.4	10.8
70°-80°	124.1	6.1
80°-90°	38.2	1.9
90°-100°	4.8	0.2
100°-110°	2.7	0.1
110°-120°	1.6	0.1
120°-130°	0.9	0.0
130°-140°	0.1	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°	616.5	30.4
0°-40°	979.3	48.3
0°-60°	1635.1	80.7
0°-90°	2016.8	99.5
90°-120°	9.1	0.5
90°-150°	10.2	0.5
90°-180°	10.0	0.5
0°-180°	2027.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	831	831	831	831	831	
5°	819	831	824	823	830	78
15°	777	787	777	776	781	219
25°	700	706	694	682	685	322
35°	595	597	580	566	566	371
45°	477	475	459	443	436	367
55°	356	355	338	322	318	318
65°	237	235	220	207	204	236
75°	129	124	114	110	108	137
85°	37	33	33	32	30	40
90°	4	6	7	6	6	5
95°	9	5	3	3	2	7
105°	6	3	2	1	0	6
115°	3	2	1	0	0	4
125°	2	2	1	0	0	2
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°	831.0	831.0	831.0	831.0	831.0
2.5°	823.8	834.4	828.3	828.4	831.9
5°	818.6	830.7	824.2	823.3	829.9
7.5°	810.0	821.9	814.3	813.1	821.8
10°	802.8	813.8	806.2	804.1	811.8
12.5°	792.8	803.9	796.2	793.2	800.9
15°	776.8	786.7	776.8	775.7	781.3
17.5°	758.7	767.3	755.7	752.0	756.2
20°	745.1	752.8	739.4	733.9	737.2
22.5°	727.9	735.6	721.4	713.1	717.3
25°	699.9	706.5	694.2	681.9	685.2
27.5°	669.8	674.9	662.6	649.9	651.0
30°	649.0	652.3	639.9	626.4	627.5
32.5°	627.3	629.7	616.4	602.0	602.2
35°	594.7	596.9	580.0	566.5	566.5
37.5°	560.1	561.4	543.4	528.7	527.1
40°	534.8	537.0	519.0	504.2	500.9
42.5°	511.3	511.7	495.4	480.7	476.5
45°	477.1	474.9	459.0	443.1	436.4
47.5°	440.3	440.3	422.2	406.2	400.0
50°	414.9	414.9	396.9	380.9	376.5
52.5°	391.4	390.5	373.3	357.4	351.2
55°	356.2	355.0	338.1	322.1	317.7
57.5°	318.8	318.8	303.0	285.9	281.1
60°	296.2	296.2	280.4	263.3	256.7
62.5°	271.8	270.9	255.1	239.8	235.9
65°	237.4	235.2	220.5	206.8	203.5
67.5°	204.6	202.4	186.8	175.9	173.7
70°	182.0	179.8	165.1	156.0	153.8
72.5°	160.3	157.2	144.3	137.0	134.8
75°	128.9	124.5	114.2	109.6	108.5
77.5°	99.0	91.5	87.3	84.1	83.0
80°	79.1	72.5	70.1	67.8	66.7
82.5°	62.0	55.3	54.7	53.3	52.2
85°	37.3	32.9	32.8	31.6	30.5
87.5°	16.3	13.8	14.0	13.8	13.8
90°	4.5	5.6	6.8	5.7	5.7
92.5°	8.1	5.7	5.0	4.7	3.8
95°	9.0	4.6	3.4	3.4	2.3
97.5°	7.9	4.6	3.2	2.0	1.1
100°	7.9	4.6	2.3	1.1	1.1
102.5°	7.0	3.7	2.3	1.1	0.2
105°	5.7	3.4	2.3	1.1	0.0
107.5°	5.4	3.4	2.3	1.1	0.0
110°	4.5	3.4	2.3	1.1	0.0



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	4.5	3.4	2.3	1.1	0.0
115°	3.4	2.3	1.1	0.0	0.0
117.5°	3.4	2.3	1.1	0.0	0.0
120°	3.4	2.3	1.1	0.0	0.0
122.5°	2.5	2.3	1.1	0.0	0.0
125°	2.3	2.3	1.1	0.0	0.0
127.5°	1.1	2.0	1.1	0.0	0.0
130°	1.1	1.1	1.1	0.0	0.0
132.5°	0.2	0.2	0.2	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)