

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: P645239

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

Issue Date: 2/16/2023



**Test Information**

Test Method: LM-79-2019  
Report Number: P645239  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2206-689-20)  
Test Lab: INNOVATION CENTER  
Issue Date: 2/16/2023  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: OMN4DP-SR4F0-50D830-CLB-1DUDD-WW  
Description: NEO-RAY CIRQUE SUSPENDED LED LUMINAIRE  
DOWNLIGHT - BATWING LENS - 500 LUMENS PER FOOT  
DIRECT ONLY  
Light Source: 3000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

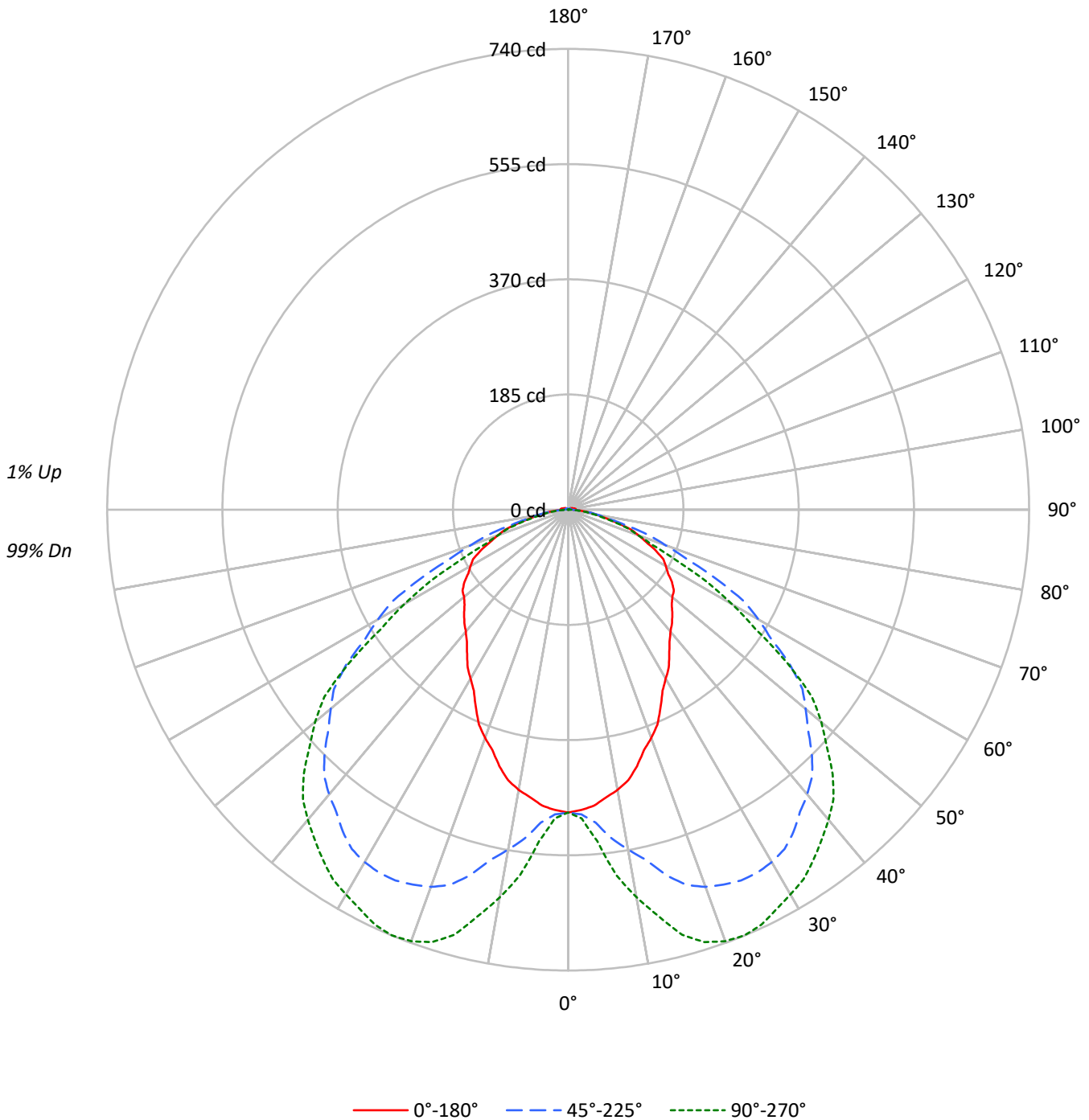
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1880.4 lumens  
Efficiency: N/A  
Efficacy: 131.5 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: 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	50	30	10	0	
RCR																						
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	101	101	101	99				
1	109	104	100	97	106	102	98	95	98	95	92	94	91	89	90	88	86	84				
2	99	91	85	79	97	89	83	78	86	81	76	82	78	74	79	76	73	70				
3	91	80	72	66	88	79	71	65	75	69	64	73	67	63	70	65	62	59				
4	83	71	62	56	80	70	61	55	67	60	54	65	58	53	62	57	53	50				
5	76	63	54	48	74	62	54	47	60	52	47	58	51	46	56	50	46	43				
6	70	57	48	41	68	56	47	41	54	46	41	52	45	40	50	45	40	38				
7	65	51	42	36	63	50	42	36	49	41	36	47	41	36	46	40	35	33				
8	60	47	38	32	59	46	38	32	44	37	32	43	36	32	42	36	31	29				
9	56	43	34	29	55	42	34	29	41	34	29	40	33	28	39	33	28	26				
10	53	39	31	26	51	39	31	26	38	31	26	37	30	26	36	30	25	24				

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

	0°	45°	90°
0°	7850	7850	7850
5°	7733	8173	8650
10°	7489	9083	10362
15°	7126	10150	11813
20°	6703	11074	12667
25°	6244	11703	13092
30°	5839	12184	13300
35°	5572	12435	13527
40°	5385	12583	13702
45°	5396	12625	13709
50°	5481	12496	13320
55°	5728	12253	12093
60°	5842	11393	9820
65°	5918	9979	7213
70°	5655	7846	5604
75°	5078	5852	4729
80°	4314	4621	3784
85°	4187	3779	3149

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 13709 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	49.9	2.7
10°-20°	165.7	8.8
20°-30°	275.3	14.6
30°-40°	347.3	18.5
40°-50°	371.2	19.7
50°-60°	327.7	17.4
60°-70°	210.3	11.2
70°-80°	93.3	5.0
80°-90°	24.2	1.3
90°-100°	6.4	0.3
100°-110°	4.1	0.2
110°-120°	3.1	0.2
120°-130°	2.0	0.1
130°-140°	0.2	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°	490.8	26.1
0°-40°	838.1	44.6
0°-60°	1537.0	81.7
0°-90°	1864.7	99.2
90°-120°	13.5	0.7
90°-150°	15.7	0.8
90°-180°	16.0	0.9
0°-180°	1880.4	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	486	486	486	486	486	
5°	477	492	504	522	534	45
15°	426	492	607	680	707	119
25°	350	475	657	718	735	161
35°	283	434	631	672	686	177
45°	236	371	553	587	600	183
55°	204	292	435	437	430	181
65°	155	196	261	212	189	152
75°	81	90	94	80	76	87
85°	23	19	20	18	17	24
90°	8	8	7	7	4	5
95°	12	8	6	3	2	9
105°	8	7	3	1	0	9
115°	6	4	3	1	0	6
125°	3	3	3	1	0	3
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°	486.2	486.2	486.2	486.2	486.2
2.5°	482.6	489.6	489.8	492.6	496.1
5°	477.1	491.5	504.3	521.5	533.7
7.5°	465.8	491.5	532.3	572.3	592.2
10°	456.8	492.2	554.0	607.7	632.0
12.5°	445.0	491.9	575.7	640.4	668.2
15°	426.3	491.5	607.2	680.1	706.7
17.5°	404.5	489.4	631.8	704.9	728.1
20°	390.1	487.4	644.5	714.0	737.2
22.5°	373.8	482.6	651.7	718.4	739.9
25°	350.5	475.4	656.9	718.3	734.9
27.5°	327.7	465.2	657.1	709.2	723.4
30°	313.2	456.9	653.5	700.2	713.4
32.5°	300.5	447.8	646.3	689.3	703.5
35°	282.7	434.1	630.9	671.9	686.3
37.5°	267.3	418.5	611.5	651.4	668.2
40°	255.5	405.9	597.0	636.9	650.1
42.5°	246.5	392.4	579.8	618.7	630.2
45°	236.3	371.2	552.9	587.1	600.4
47.5°	225.5	349.3	521.9	554.2	562.8
50°	218.2	333.2	497.5	527.0	530.3
52.5°	213.7	316.3	474.0	492.5	493.2
55°	203.5	292.0	435.3	437.4	429.6
57.5°	189.9	263.6	386.2	375.2	356.6
60°	180.9	243.9	352.8	330.7	304.1
62.5°	171.9	225.1	317.5	281.7	250.8
65°	154.9	195.8	261.2	212.0	188.8
67.5°	135.2	163.5	205.1	158.6	143.1
70°	119.8	142.0	166.2	129.8	118.7
72.5°	105.4	120.4	134.5	107.3	101.5
75°	81.4	90.3	93.8	80.2	75.8
77.5°	59.9	60.4	65.1	56.5	54.3
80°	46.4	44.1	49.7	42.9	40.7
82.5°	35.5	32.4	36.2	31.2	29.8
85°	22.6	19.3	20.4	18.1	17.0
87.5°	13.3	10.7	10.4	9.5	8.1
90°	7.9	7.9	6.8	6.7	4.5
92.5°	10.6	8.0	5.9	4.9	2.7
95°	12.4	8.0	5.7	3.4	2.3
97.5°	11.1	7.8	4.3	2.2	1.1
100°	10.2	6.9	3.4	2.2	1.1
102.5°	9.3	6.8	3.4	1.3	0.2
105°	7.9	6.8	3.4	1.1	0.0
107.5°	7.7	5.7	3.4	1.1	0.0
110°	6.8	5.7	3.4	1.1	0.0



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	6.8	5.7	3.4	1.1	0.0
115°	5.7	4.5	3.4	1.1	0.0
117.5°	5.4	4.5	3.4	1.1	0.0
120°	4.5	4.5	3.4	1.1	0.0
122.5°	4.5	3.6	2.5	1.1	0.0
125°	3.4	3.4	3.4	1.1	0.0
127.5°	2.3	3.1	2.3	0.9	0.0
130°	2.3	2.3	2.3	0.0	0.0
132.5°	0.5	0.5	0.5	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)