

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: P644994

Luminaire Tested: OMN4DIP-SR4F0-50D75U830-CLBOOB-1DUDD-WW

Issue Date: 2/16/2023



**Test Information**

Test Method: LM-79-2019  
Report Number: P644994  
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-SR4F0-50D75U830-CLBOOB-1DUDD-WW  
Description: NEO-RAY CIRQUE SUSPENDED LED LUMINAIRE  
DOWNLIGHT - BATWING LENS - 500 LUMENS PER FOOT  
UPLIGHT - BATWING OPTIC - 750 LUMENS PER FOOT  
Light Source: 3000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

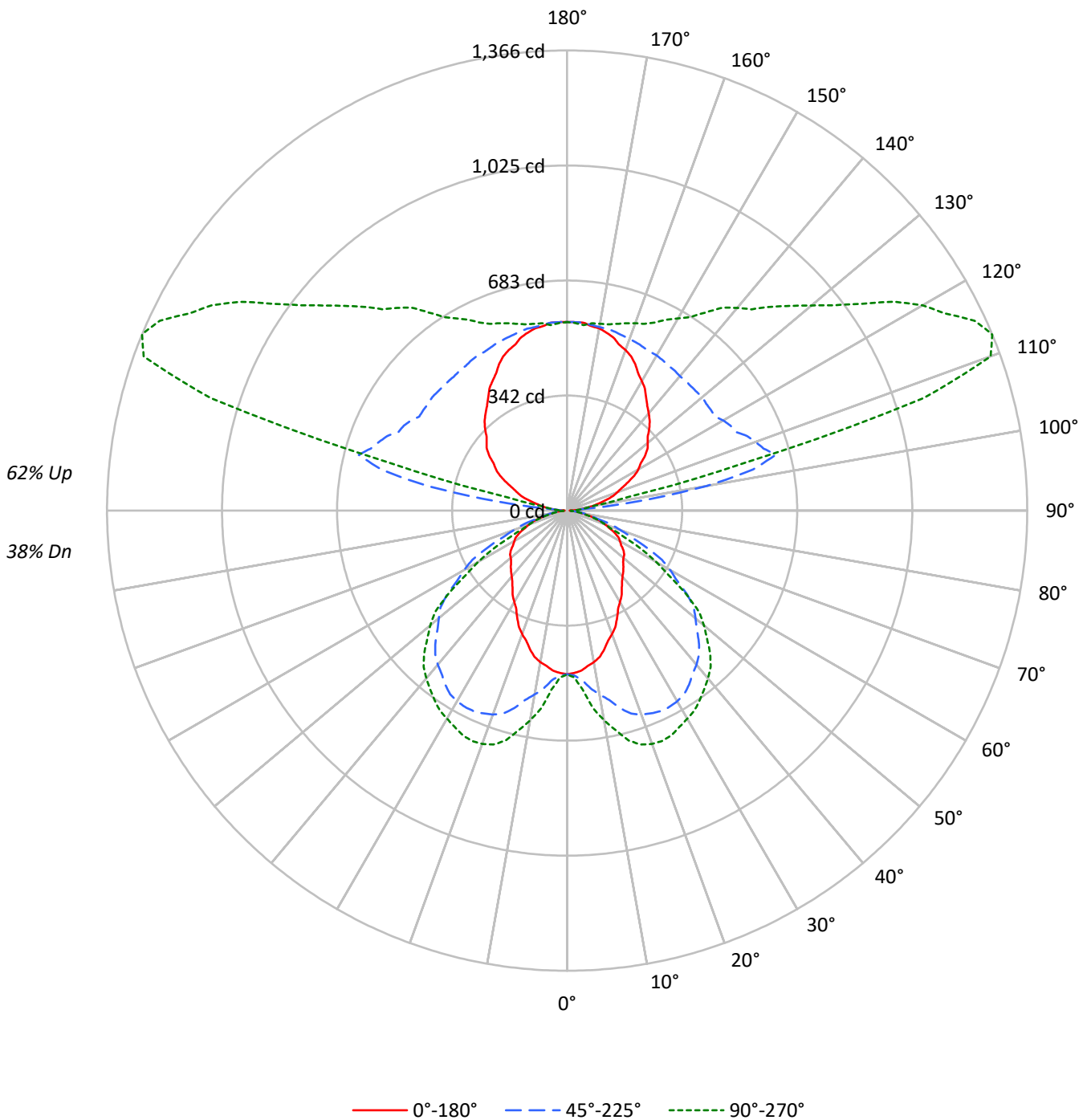
Lumens per Lamp: N/A  
Luminaire Lumens: 4888.6 lumens  
Efficiency: N/A  
Efficacy: 139.3 lumens/watt  
Spacing Criteria (0/90/45): 0.99 / 1.87 / 1.75  
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')  
CIE Type: Semi-Indirect

Input Watts (W): 35.1  
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	104	104	104	104	95	95	95	95	77	77	77	60	60	60	45	45	45	38				
1	95	91	87	84	86	83	80	77	67	65	63	53	52	50	40	39	38	32				
2	87	79	73	68	78	72	67	63	59	55	52	47	44	42	35	34	32	27				
3	79	70	63	57	71	64	57	52	52	47	44	41	38	35	31	29	27	23				
4	72	62	54	48	65	56	49	44	46	41	37	37	33	30	28	25	23	19				
5	66	55	47	41	60	50	43	38	41	36	32	33	29	26	25	22	20	17				
6	61	49	41	35	55	45	38	33	37	31	27	29	25	23	22	20	18	15				
7	56	44	36	31	51	40	33	28	33	28	24	27	23	20	20	18	16	13				
8	52	40	32	27	47	36	30	25	30	25	21	24	20	17	19	16	14	11				
9	48	36	29	24	44	33	26	22	27	22	19	22	18	16	17	14	12	10				
10	45	33	26	21	41	30	24	20	25	20	17	20	17	14	16	13	11	9				

**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	1.0
10°-20°	165.7	3.4
20°-30°	275.3	5.6
30°-40°	347.3	7.1
40°-50°	371.2	7.6
50°-60°	327.7	6.7
60°-70°	210.3	4.3
70°-80°	93.3	1.9
80°-90°	25.4	0.5
90°-100°	75.2	1.5
100°-110°	494.5	10.1
110°-120°	668.9	13.7
120°-130°	543.9	11.1
130°-140°	436.0	8.9
140°-150°	343.6	7.0
150°-160°	251.2	5.1
160°-170°	156.1	3.2
170°-180°	53.2	1.1
0°-30°	490.8	10.0
0°-40°	838.1	17.1
0°-60°	1537.0	31.4
0°-90°	1866.0	38.2
90°-120°	1238.6	25.3
90°-150°	2562.1	52.4
90°-180°	3023.0	61.8
0°-180°	4888.6	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	11	14	17	15	7
95°	41	60	34	35	41	41
105°	117	174	641	815	539	124
115°	199	240	553	1143	1334	198
125°	282	319	521	906	1070	250
135°	345	383	521	745	856	266
145°	408	443	525	649	718	257
155°	479	496	535	589	616	220
165°	532	538	549	564	574	149
175°	560	563	560	556	553	53
180°	560	560	560	560	560	

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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	11.4	11.8	11.6	10.3
90°	7.9	11.4	13.8	17.3	15.1
92.5°	19.1	19.9	21.4	26.8	27.4
95°	40.6	60.3	33.8	35.2	41.0
97.5°	61.1	108.0	211.3	63.3	53.9
100°	77.1	132.3	418.8	124.5	82.1
102.5°	93.1	151.9	565.3	324.0	177.0
105°	117.1	174.5	640.6	815.1	538.6
107.5°	142.2	184.2	611.7	1185.8	1109.7
110°	158.2	198.4	594.8	1246.0	1337.8



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	175.1	215.3	578.0	1210.8	1366.0
115°	199.3	239.5	552.6	1142.6	1334.3
117.5°	225.1	264.8	546.3	1068.8	1266.0
120°	243.9	281.8	535.0	1012.7	1218.1
122.5°	258.0	297.7	520.0	964.4	1153.3
125°	281.5	319.4	520.9	906.1	1070.3
127.5°	300.8	340.2	520.5	838.3	1000.5
130°	312.1	353.4	523.3	792.1	947.0
132.5°	324.3	365.7	521.5	771.8	899.2
135°	345.0	382.9	521.0	745.3	855.5
137.5°	362.6	403.2	521.0	716.1	810.4
140°	376.7	414.6	521.0	699.0	785.1
142.5°	390.8	425.9	523.9	679.2	759.7
145°	408.4	442.8	524.6	649.4	718.2
147.5°	429.5	459.8	528.8	627.9	680.9
150°	443.6	471.1	531.6	613.6	658.3
152.5°	457.7	482.5	531.6	602.1	638.6
155°	478.8	496.0	535.1	588.6	616.1
157.5°	495.7	512.2	539.4	579.9	599.9
160°	507.0	520.7	542.2	574.2	591.5
162.5°	515.4	529.2	545.0	571.3	583.0
165°	531.6	538.5	549.2	563.5	573.9
167.5°	540.8	547.0	552.7	559.9	566.1
170°	549.2	552.7	552.7	559.9	563.3
172.5°	552.0	558.2	555.5	557.0	560.5
175°	559.8	563.2	559.8	556.2	552.7
177.5°	559.8	562.5	559.8	559.7	557.0
180°	559.8	559.8	559.8	559.8	559.8

(END OF REPORT)