

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: P644938

Luminaire Tested: OMN4DIP-SR4F0-50D25U835-CLBOOB-1DUDD-WW

Issue Date: 2/16/2023



**Test Information**

Test Method: LM-79-2019  
Report Number: P644938  
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-SR4F0-50D25U835-CLBOOB-1DUDD-WW  
Description: NEO-RAY CIRQUE SUSPENDED LED LUMINAIRE  
DOWNLIGHT - BATWING LENS - 500 LUMENS PER FOOT  
UPLIGHT - BATWING OPTIC - 250 LUMENS PER FOOT  
Light Source: 3500K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

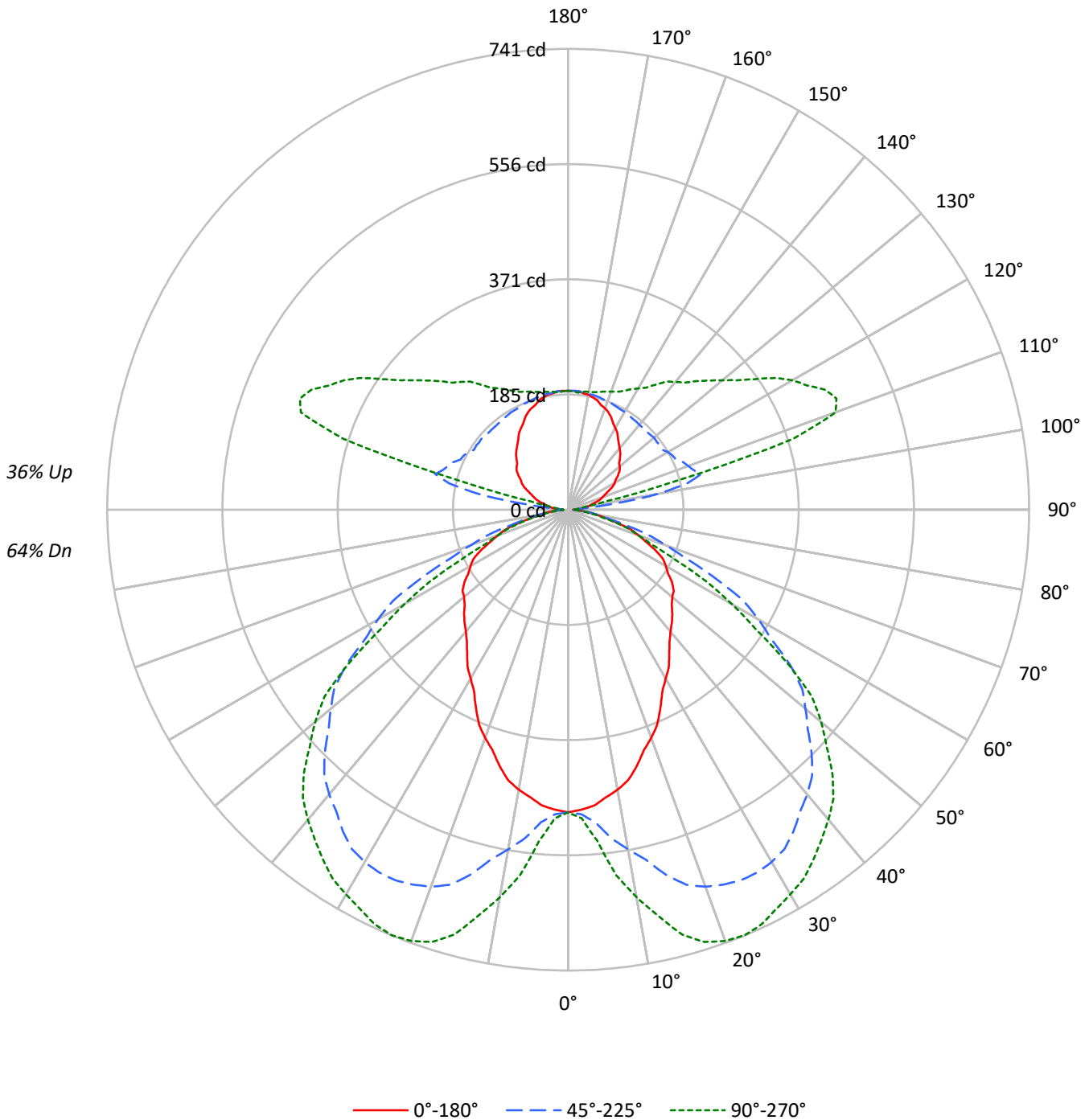
Lumens per Lamp: N/A  
Luminaire Lumens: 2910.1 lumens  
Efficiency: N/A  
Efficacy: 128.8 lumens/watt  
Spacing Criteria (0/90/45): 0.99 / 1.87 / 1.75  
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')  
CIE Type: Semi-Direct

Input Watts (W): 22.6  
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					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	111	111	111	111	104	104	104	104	91	91	91	80	80	80	69	69	69	64				
1	101	97	93	89	95	91	88	85	80	78	75	70	69	67	61	60	59	54				
2	92	85	78	73	86	80	74	69	70	66	62	62	59	56	54	52	49	46				
3	84	74	67	61	78	70	63	58	62	57	52	55	50	47	48	45	42	38				
4	77	66	57	51	72	62	55	49	55	49	44	48	44	40	42	39	36	33				
5	70	58	50	44	66	55	47	42	49	43	38	43	38	35	38	34	31	28				
6	65	52	44	38	60	49	42	36	44	38	33	39	34	30	34	30	27	24				
7	60	47	39	33	56	45	37	32	40	34	29	35	30	26	31	27	24	21				
8	55	43	35	29	52	40	33	28	36	30	26	32	27	23	29	24	21	19				
9	52	39	31	26	48	37	30	25	33	27	23	30	25	21	26	22	19	17				
10	48	36	28	23	45	34	27	22	30	25	21	27	22	19	24	20	17	15				

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

	0°	45°	90°
0°	7857	7857	7857
5°	7741	8180	8656
10°	7496	9091	10371
15°	7131	10158	11823
20°	6708	11082	12677
25°	6249	11713	13105
30°	5845	12195	13313
35°	5576	12447	13539
40°	5391	12593	13715
45°	5400	12636	13721
50°	5486	12506	13333
55°	5734	12265	12104
60°	5848	11402	9830
65°	5922	9987	7221
70°	5665	7855	5608
75°	5084	5858	4729
80°	4314	4630	3784
85°	4187	3779	3149

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°

Vertical Angle: 45°

Luminance: 13721 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	49.9	1.7
10°-20°	165.8	5.7
20°-30°	275.5	9.5
30°-40°	347.6	11.9
40°-50°	371.6	12.8
50°-60°	327.9	11.3
60°-70°	210.5	7.2
70°-80°	93.3	3.2
80°-90°	24.6	0.8
90°-100°	29.9	1.0
100°-110°	171.7	5.9
110°-120°	230.6	7.9
120°-130°	187.2	6.4
130°-140°	149.2	5.1
140°-150°	117.4	4.0
150°-160°	85.9	3.0
160°-170°	53.3	1.8
170°-180°	18.2	0.6
0°-30°	491.3	16.9
0°-40°	838.9	28.8
0°-60°	1538.4	52.9
0°-90°	1866.8	64.1
90°-120°	432.2	14.9
90°-150°	885.9	30.4
90°-180°	1043.0	35.8
0°-180°	2910.1	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	487	487	487	487	487	
5°	478	492	505	522	534	45
15°	427	492	608	681	707	119
25°	351	476	658	719	736	161
35°	283	434	632	672	687	178
45°	236	372	553	588	601	183
55°	204	292	436	438	430	181
65°	155	196	261	212	189	152
75°	82	90	94	80	76	87
85°	23	19	20	18	17	24
90°	8	9	9	10	8	6
95°	22	26	15	14	16	20
105°	45	64	221	279	184	48
115°	72	85	191	391	456	72
125°	98	111	180	310	366	88
135°	118	131	178	255	292	91
145°	140	151	179	222	245	88
155°	164	170	183	201	211	75
165°	182	184	188	193	196	51
175°	191	192	191	190	189	18
180°	191	191	191	191	191	

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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	486.6	486.6	486.6	486.6	486.6
2.5°	483.0	490.1	490.2	493.0	496.6
5°	477.6	491.9	504.7	522.0	534.1
7.5°	466.2	491.9	532.8	572.8	592.8
10°	457.2	492.6	554.5	608.3	632.6
12.5°	445.4	492.3	576.2	640.9	668.8
15°	426.6	491.9	607.7	680.7	707.3
17.5°	404.9	489.9	632.4	705.6	728.8
20°	390.4	487.8	645.0	714.6	737.8
22.5°	374.1	483.0	652.3	719.1	740.6
25°	350.8	475.9	657.5	719.0	735.6
27.5°	328.0	465.6	657.7	709.9	724.0
30°	313.5	457.3	654.1	700.8	714.1
32.5°	300.8	448.2	646.9	690.0	704.1
35°	282.9	434.5	631.5	672.5	686.9
37.5°	267.5	418.9	612.0	652.0	668.8
40°	255.8	406.2	597.5	637.4	650.7
42.5°	246.7	392.8	580.3	619.3	630.8
45°	236.5	371.5	553.4	587.6	600.9
47.5°	225.7	349.6	522.4	554.7	563.3
50°	218.4	333.5	497.9	527.4	530.8
52.5°	213.9	316.6	474.4	493.0	493.6
55°	203.7	292.2	435.7	437.8	430.0
57.5°	190.1	263.8	386.6	375.5	356.9
60°	181.1	244.1	353.1	331.0	304.4
62.5°	172.0	225.3	317.8	282.0	251.0
65°	155.0	196.0	261.4	212.2	189.0
67.5°	135.3	163.7	205.3	158.8	143.3
70°	120.0	142.1	166.4	129.9	118.8
72.5°	105.5	120.5	134.7	107.4	101.6
75°	81.5	90.3	93.9	80.2	75.8
77.5°	60.0	60.4	65.2	56.5	54.3
80°	46.4	44.2	49.8	43.0	40.7
82.5°	35.5	32.4	36.2	31.2	29.9
85°	22.6	19.3	20.4	18.1	17.0
87.5°	13.4	10.9	10.9	10.2	8.9
90°	7.9	9.1	9.2	10.3	8.1
92.5°	13.5	12.0	11.2	12.4	11.1
95°	22.1	25.9	15.3	14.3	15.5
97.5°	28.2	42.0	75.0	23.1	19.2
100°	33.0	49.7	145.4	44.0	28.8
102.5°	37.9	56.4	195.4	111.6	60.6
105°	45.2	64.1	221.2	279.3	184.1
107.5°	53.7	66.7	211.3	406.0	379.2
110°	58.5	71.5	205.5	426.5	457.2



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	64.3	77.3	199.8	414.5	466.8
115°	71.8	84.8	191.1	391.2	456.0
117.5°	80.5	93.5	188.9	366.0	432.7
120°	86.3	99.3	185.1	346.8	416.3
122.5°	91.2	104.2	179.4	330.3	394.2
125°	98.4	111.4	180.3	310.4	365.8
127.5°	104.3	118.4	179.4	287.1	341.9
130°	108.1	122.3	180.3	270.7	323.7
132.5°	111.1	125.3	178.5	263.8	307.3
135°	117.9	130.9	178.1	254.7	292.4
137.5°	123.9	137.8	178.1	244.7	277.0
140°	128.7	141.7	178.1	238.9	268.3
142.5°	133.6	145.6	179.0	232.1	259.6
145°	139.6	151.3	179.3	221.9	245.4
147.5°	146.8	157.1	180.7	214.6	232.7
150°	151.6	161.0	181.7	209.7	225.0
152.5°	156.4	164.9	181.7	205.8	218.3
155°	163.6	169.5	182.9	201.1	210.6
157.5°	169.4	175.1	184.3	198.2	205.0
160°	173.3	178.0	185.3	196.2	202.1
162.5°	176.1	180.8	186.3	195.2	199.2
165°	181.7	184.0	187.7	192.6	196.1
167.5°	184.8	186.9	188.9	191.4	193.5
170°	187.7	188.9	188.9	191.3	192.5
172.5°	188.7	190.8	189.9	190.4	191.5
175°	191.3	192.5	191.3	190.1	188.9
177.5°	191.3	192.2	191.3	191.3	190.3
180°	191.3	191.3	191.3	191.3	191.3

(END OF REPORT)