

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: P644908

Luminaire Tested: OMN4DIP-SR4F0-50D150U835-CLBOOB-1DUDD-WW

Issue Date: 2/16/2023



Test Information

Test Method: LM-79-2019
Report Number: P644908
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-SR4F0-50D150U835-CLBOOB-1DUDD-WW
Description: NEO-RAY CIRQUE SUSPENDED LED LUMINAIRE
DOWNLIGHT - BATWING LENS - 500 LUMENS PER FOOT
UPLIGHT - BATWING OPTIC - 1500 LUMENS PER FOOT
Light Source: 3500K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

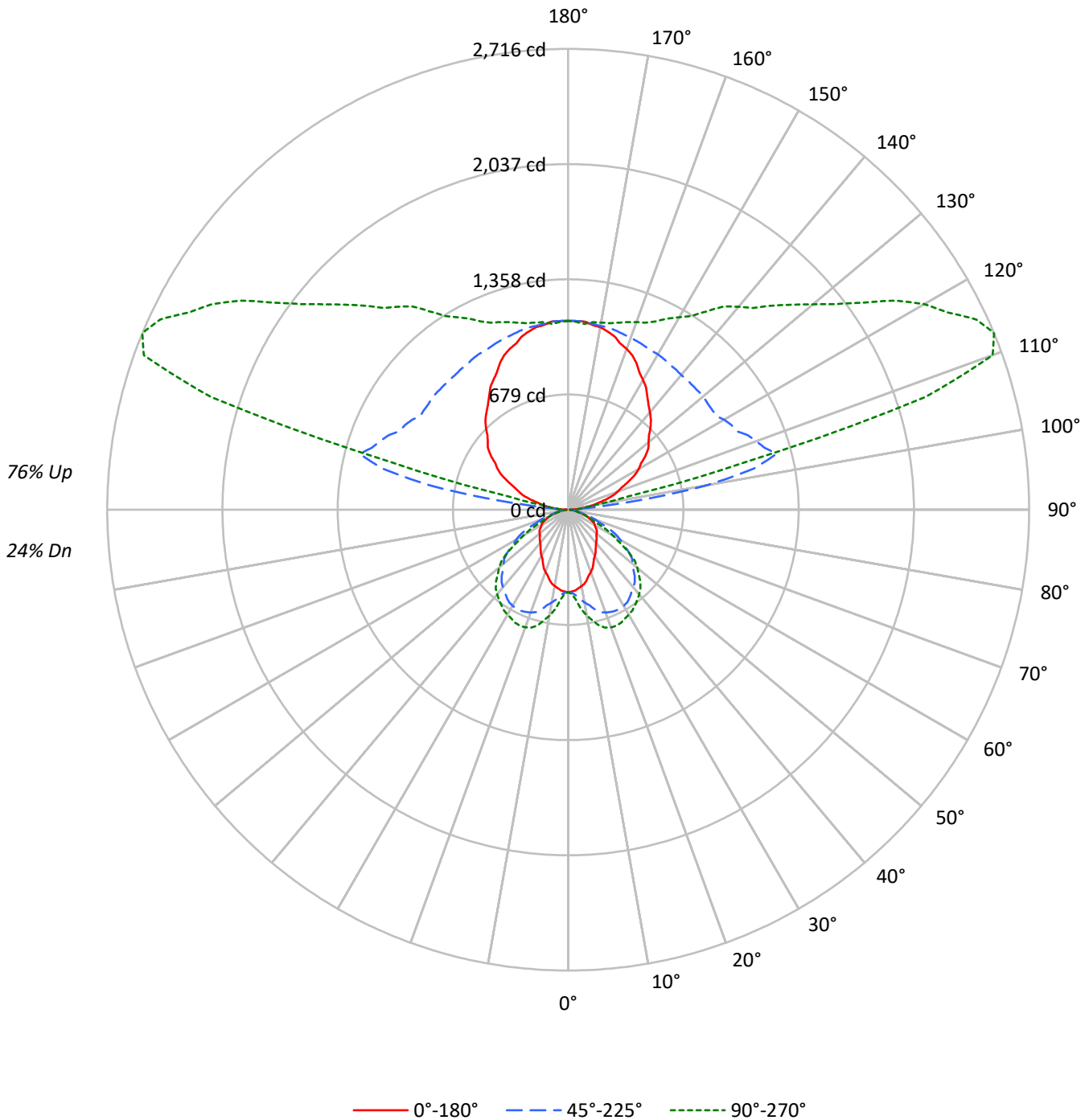
Lumens per Lamp: N/A
Luminaire Lumens: 7863.9 lumens
Efficiency: N/A
Efficacy: 125.0 lumens/watt
Spacing Criteria (0/90/45): 0.99 / 1.87 / 1.75
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: Semi-Indirect

Input Watts (W): 62.9
Input Voltage (V): 120
Input Current (A_{in}): 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	101	101	101	101	90	90	90	90	69	69	69	50	50	50	32	32	32	24
1	92	88	84	81	82	78	75	72	60	58	56	44	42	41	28	28	27	20
2	84	77	71	66	74	68	63	59	53	49	47	38	36	34	25	24	23	17
3	76	67	60	55	67	60	54	49	46	42	39	34	31	29	22	21	19	14
4	70	59	52	46	62	53	47	42	41	37	33	30	27	25	20	18	16	12
5	64	53	45	39	56	47	40	35	36	32	28	27	24	21	18	16	14	10
6	58	47	39	34	52	42	35	30	33	28	24	24	21	18	16	14	12	9
7	54	42	34	29	48	38	31	26	29	25	21	22	18	16	14	12	11	8
8	50	38	31	25	44	34	28	23	27	22	19	20	16	14	13	11	10	7
9	46	34	27	22	41	31	25	20	24	20	16	18	15	13	12	10	9	6
10	43	31	24	20	38	28	22	18	22	18	15	16	13	11	11	9	8	6

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	0.6
10°-20°	165.8	2.1
20°-30°	275.5	3.5
30°-40°	347.6	4.4
40°-50°	371.6	4.7
50°-60°	327.9	4.2
60°-70°	210.5	2.7
70°-80°	93.3	1.2
80°-90°	26.7	0.3
90°-100°	143.2	1.8
100°-110°	979.3	12.5
110°-120°	1327.1	16.9
120°-130°	1079.6	13.7
130°-140°	866.9	11.0
140°-150°	683.3	8.7
150°-160°	499.6	6.4
160°-170°	310.3	3.9
170°-180°	105.8	1.3
0°-30°	491.3	6.2
0°-40°	838.9	10.7
0°-60°	1538.4	19.6
0°-90°	1868.9	23.8
90°-120°	2449.5	31.1
90°-150°	5079.2	64.6
90°-180°	5995.0	76.2
0°-180°	7863.9	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	15	21	28	26	8
95°	68	112	62	67	79	72
105°	225	340	1270	1620	1071	238
115°	391	472	1096	2271	2653	388
125°	556	632	1032	1801	2128	494
135°	686	761	1036	1482	1701	528
145°	812	880	1043	1291	1428	510
155°	952	986	1064	1170	1225	437
165°	1057	1071	1092	1121	1141	297
175°	1113	1120	1113	1106	1099	105
180°	1113	1113	1113	1113	1113	



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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	12.1	13.2	13.7	12.3
90°	7.9	14.8	20.8	27.7	25.5
92.5°	27.4	31.6	36.7	48.5	51.7
95°	68.5	111.9	61.7	66.7	79.3
97.5°	110.5	207.1	415.9	123.7	106.1
100°	143.2	256.2	829.5	245.4	162.1
102.5°	175.9	295.3	1120.7	643.0	351.7
105°	224.9	340.2	1270.5	1619.8	1071.1
107.5°	275.1	360.7	1213.1	2356.9	2206.6
110°	307.8	388.9	1179.5	2476.5	2660.2



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	341.4	422.5	1145.9	2406.6	2716.2
115°	390.7	471.7	1095.5	2271.0	2653.2
117.5°	442.3	522.2	1082.9	2124.3	2517.4
120°	480.6	555.9	1060.5	2012.6	2422.2
122.5°	508.6	588.5	1031.6	1916.7	2293.4
125°	556.4	631.7	1032.5	1800.7	2128.2
127.5°	595.9	673.5	1032.8	1666.0	1989.6
130°	618.3	700.5	1038.4	1575.1	1883.2
132.5°	644.5	726.7	1036.5	1534.7	1788.0
135°	686.1	761.4	1036.1	1482.1	1701.2
137.5°	721.1	801.8	1036.1	1424.0	1611.5
140°	749.1	824.4	1036.1	1390.0	1561.1
142.5°	777.1	846.9	1041.7	1350.6	1510.7
145°	812.1	880.5	1043.1	1291.2	1428.1
147.5°	854.1	914.3	1051.5	1248.5	1353.9
150°	882.1	936.8	1057.1	1220.1	1309.1
152.5°	910.1	959.4	1057.1	1197.4	1269.9
155°	952.1	986.3	1064.1	1170.3	1225.1
157.5°	985.7	1018.5	1072.5	1153.2	1192.9
160°	1008.1	1035.5	1078.1	1141.9	1176.1
162.5°	1024.9	1052.3	1083.7	1136.0	1159.3
165°	1057.1	1070.8	1092.1	1120.6	1141.1
167.5°	1075.3	1087.6	1099.1	1113.4	1125.7
170°	1092.1	1098.9	1099.1	1113.3	1120.1
172.5°	1097.7	1110.0	1104.7	1107.7	1114.5
175°	1113.1	1119.9	1113.1	1105.9	1099.1
177.5°	1113.1	1118.6	1113.1	1113.0	1107.5
180°	1113.1	1113.1	1113.1	1113.1	1113.1

(END OF REPORT)