

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: P644904

Luminaire Tested: OMN4DIP-SR4F0-50D150U830-CLBOOB-1DUDD-WW

Issue Date: 2/16/2023



Test Information

Test Method: LM-79-2019
Report Number: P644904
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-SR4F0-50D150U830-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: 3000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

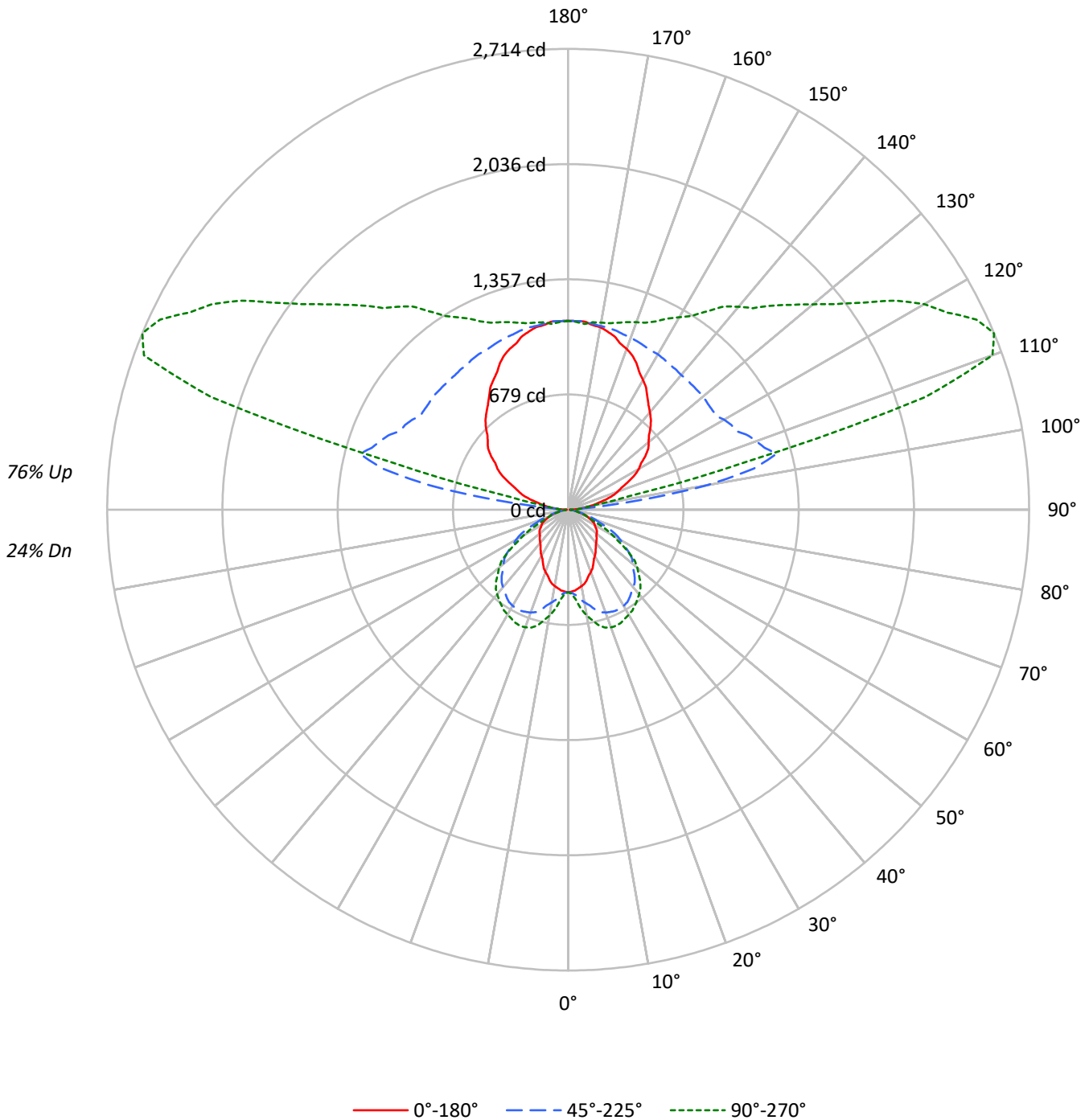
Lumens per Lamp: N/A
Luminaire Lumens: 7856.8 lumens
Efficiency: N/A
Efficacy: 124.9 lumens/watt
Spacing Criteria (0/90/45): 0.99 / 1.87 / 1.75
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: Semi-Indirect

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°	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	0.6
10°-20°	165.7	2.1
20°-30°	275.3	3.5
30°-40°	347.3	4.4
40°-50°	371.2	4.7
50°-60°	327.7	4.2
60°-70°	210.3	2.7
70°-80°	93.3	1.2
80°-90°	26.7	0.3
90°-100°	143.1	1.8
100°-110°	978.4	12.5
110°-120°	1325.8	16.9
120°-130°	1078.6	13.7
130°-140°	866.1	11.0
140°-150°	682.6	8.7
150°-160°	499.1	6.4
160°-170°	310.0	3.9
170°-180°	105.7	1.3
0°-30°	490.8	6.2
0°-40°	838.1	10.7
0°-60°	1537.0	19.6
0°-90°	1867.2	23.8
90°-120°	2447.3	31.1
90°-150°	5074.6	64.6
90°-180°	5990.0	76.2
0°-180°	7856.8	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	15	21	28	26	8
95°	68	112	62	67	79	72
105°	225	340	1269	1618	1070	238
115°	390	471	1094	2269	2651	388
125°	556	631	1032	1799	2126	494
135°	685	761	1035	1481	1700	528
145°	811	880	1042	1290	1427	510
155°	951	985	1063	1169	1224	437
165°	1056	1070	1091	1120	1140	297
175°	1112	1119	1112	1105	1098	105
180°	1112	1112	1112	1112	1112	

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CATALOG NUMBER: OMN4DIP-SR4F0-50D150U830-CLBOOB-1DUDD-WW

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	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	48.4	51.7
95°	68.4	111.8	61.6	66.6	79.2
97.5°	110.4	206.9	415.6	123.6	106.0
100°	143.1	256.0	828.7	245.2	162.0
102.5°	175.7	295.0	1119.7	642.4	351.3
105°	224.7	339.9	1269.4	1618.3	1070.1
107.5°	274.9	360.4	1212.0	2354.8	2204.6
110°	307.5	388.5	1178.4	2474.3	2657.8



TEST NUMBER: P644904

CATALOG NUMBER: OMN4DIP-SR4F0-50D150U830-CLBOOB-1DUDD-WW

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	341.1	422.1	1144.9	2404.4	2713.8
115°	390.3	471.3	1094.5	2269.0	2650.8
117.5°	441.9	521.7	1081.9	2122.3	2515.2
120°	480.1	555.4	1059.5	2010.8	2420.0
122.5°	508.1	587.9	1030.7	1914.9	2291.3
125°	555.9	631.2	1031.6	1799.1	2126.3
127.5°	595.4	672.9	1031.8	1664.5	1987.8
130°	617.8	699.8	1037.4	1573.7	1881.5
132.5°	643.9	726.0	1035.6	1533.3	1786.3
135°	685.4	760.7	1035.2	1480.8	1699.6
137.5°	720.4	801.1	1035.2	1422.7	1610.1
140°	748.4	823.6	1035.2	1388.8	1559.7
142.5°	776.4	846.1	1040.8	1349.3	1509.4
145°	811.3	879.7	1042.2	1290.1	1426.8
147.5°	853.3	913.5	1050.5	1247.4	1352.7
150°	881.3	936.0	1056.1	1219.0	1307.9
152.5°	909.3	958.5	1056.1	1196.3	1268.8
155°	951.2	985.4	1063.1	1169.3	1224.0
157.5°	984.8	1017.6	1071.5	1152.2	1191.8
160°	1007.2	1034.5	1077.1	1140.8	1175.0
162.5°	1024.0	1051.3	1082.7	1135.0	1158.3
165°	1056.1	1069.8	1091.1	1119.6	1140.1
167.5°	1074.3	1086.6	1098.1	1112.4	1124.7
170°	1091.1	1098.0	1098.1	1112.3	1119.1
172.5°	1096.7	1109.0	1103.7	1106.7	1113.5
175°	1112.1	1118.9	1112.1	1104.9	1098.1
177.5°	1112.1	1117.6	1112.1	1112.0	1106.5
180°	1112.1	1112.1	1112.1	1112.1	1112.1

(END OF REPORT)