

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: P645084

Luminaire Tested: OMN4DIP-SR4F0-75D150U830-CLBOOB-1DUDD-WW

Issue Date: 2/16/2023



Test Information

Test Method: LM-79-2019
Report Number: P645084
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-SR4F0-75D150U830-CLBOOB-1DUDD-WW
Description: NEO-RAY CIRQUE SUSPENDED LED LUMINAIRE
DOWNLIGHT - BATWING LENS - 750 LUMENS PER FOOT
UPLIGHT - BATWING OPTIC - 1500 LUMENS PER FOOT
Light Source: 3000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

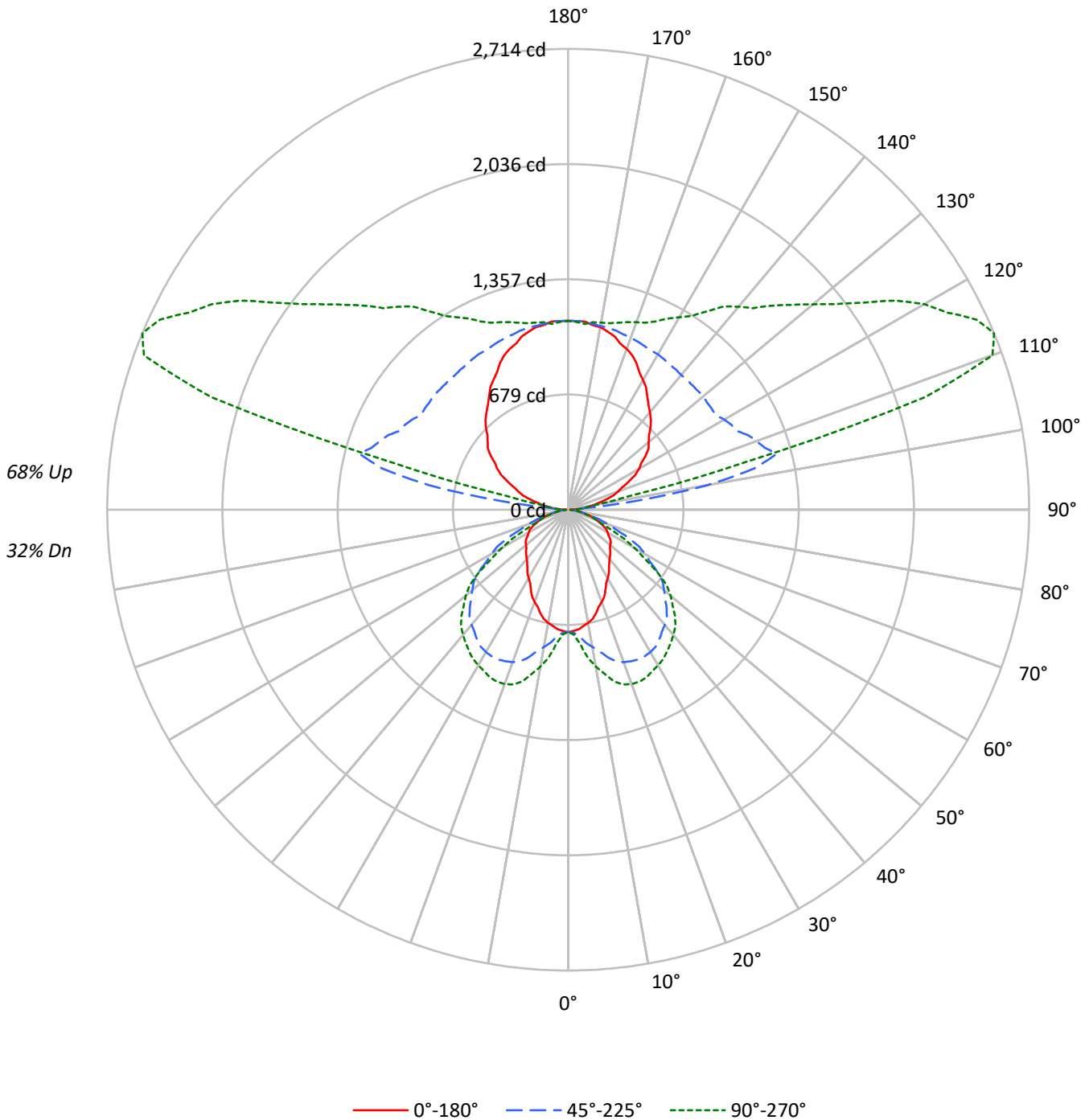
Lumens per Lamp: N/A
Luminaire Lumens: 8762.6 lumens
Efficiency: N/A
Efficacy: 124.5 lumens/watt
Spacing Criteria (0/90/45): 0.99 / 1.87 / 1.75
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: Semi-Indirect

Input Watts (W): 70.4
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	103	103	103	103	92	92	92	92	73	73	73	55	55	55	39	39	39	39	39	39	32	
1	94	90	86	82	84	81	78	75	64	62	60	49	47	46	35	34	33	35	34	33	27	
2	85	78	72	67	76	70	65	61	56	53	50	43	41	39	31	29	28	31	29	28	22	
3	78	69	61	56	70	62	56	51	49	45	42	38	35	32	27	25	24	27	25	24	19	
4	71	60	53	47	64	55	48	43	44	39	35	33	30	28	24	22	20	24	22	20	16	
5	65	54	46	40	58	49	42	37	39	34	30	30	26	24	21	19	17	21	19	17	14	
6	60	48	40	34	53	43	37	32	35	30	26	27	23	21	19	17	15	19	17	15	12	
7	55	43	35	30	49	39	32	27	31	26	23	24	21	18	18	15	13	18	15	13	11	
8	51	39	31	26	46	35	29	24	28	24	20	22	19	16	16	14	12	16	14	12	9	
9	47	35	28	23	42	32	26	21	26	21	18	20	17	14	15	12	11	15	12	11	8	
10	44	32	25	20	40	29	23	19	24	19	16	19	15	13	14	11	10	14	11	10	8	

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	11631	11631	11631
5°	11459	12110	12817
10°	11096	13459	15354
15°	10557	15039	17503
20°	9931	16407	18768
25°	9253	17341	19400
30°	8652	18053	19708
35°	8255	18425	20044
40°	7980	18645	20303
45°	7994	18705	20313
50°	8121	18515	19736
55°	8490	18156	17920
60°	8657	16879	14554
65°	8768	14785	10690
70°	8384	11627	8304
75°	7523	8677	6999
80°	6388	6853	5607
85°	6206	5595	4650

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 20313 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	73.9	0.8
10°-20°	245.5	2.8
20°-30°	407.9	4.7
30°-40°	514.6	5.9
40°-50°	550.1	6.3
50°-60°	485.5	5.5
60°-70°	311.6	3.6
70°-80°	138.2	1.6
80°-90°	38.3	0.4
90°-100°	146.1	1.7
100°-110°	980.4	11.2
110°-120°	1327.3	15.1
120°-130°	1079.5	12.3
130°-140°	866.2	9.9
140°-150°	682.6	7.8
150°-160°	499.1	5.7
160°-170°	310.0	3.5
170°-180°	105.7	1.2
0°-30°	727.3	8.3
0°-40°	1241.9	14.2
0°-60°	2277.4	26.0
0°-90°	2765.5	31.6
90°-120°	2453.8	28.0
90°-150°	5082.2	58.0
90°-180°	5997.0	68.4
0°-180°	8762.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	720	720	720	720	720	
5°	707	728	747	773	791	66
15°	632	728	900	1008	1047	177
25°	519	704	973	1064	1089	239
35°	419	643	935	996	1017	263
45°	350	550	819	870	890	271
55°	302	433	645	648	637	268
65°	230	290	387	314	280	225
75°	121	134	139	119	112	129
85°	34	29	30	27	25	35
90°	12	19	24	31	28	10
95°	74	116	64	68	80	76
105°	229	343	1271	1619	1070	242
115°	393	474	1096	2270	2651	391
125°	558	633	1033	1800	2126	496
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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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	720.4	720.4	720.4	720.4	720.4
2.5°	715.0	725.5	725.8	729.9	735.1
5°	707.0	728.3	747.2	772.7	790.8
7.5°	690.2	728.2	788.7	848.1	877.5
10°	676.8	729.3	820.9	900.5	936.5
12.5°	659.4	728.9	853.1	948.8	990.1
15°	631.6	728.2	899.7	1007.8	1047.1
17.5°	599.4	725.2	936.2	1044.5	1078.9
20°	578.0	722.1	954.9	1057.9	1092.3
22.5°	553.9	715.1	965.7	1064.6	1096.3
25°	519.4	704.5	973.4	1064.4	1089.0
27.5°	485.5	689.3	973.7	1050.9	1071.9
30°	464.1	677.0	968.3	1037.5	1057.1
32.5°	445.3	663.5	957.6	1021.4	1042.4
35°	418.8	643.3	934.8	995.6	1016.9
37.5°	396.0	620.1	906.0	965.2	990.1
40°	378.6	601.4	884.6	943.7	963.3
42.5°	365.2	581.5	859.1	916.8	933.8
45°	350.1	550.0	819.2	869.9	889.6
47.5°	334.1	517.5	773.3	821.2	834.0
50°	323.3	493.7	737.1	780.8	785.7
52.5°	316.6	468.7	702.3	729.8	730.8
55°	301.6	432.6	645.0	648.1	636.6
57.5°	281.5	390.6	572.3	555.9	528.4
60°	268.1	361.4	522.7	490.0	450.7
62.5°	254.7	333.6	470.4	417.5	371.6
65°	229.5	290.1	387.0	314.2	279.8
67.5°	200.4	242.3	303.9	235.0	212.1
70°	177.6	210.3	246.3	192.3	175.9
72.5°	156.1	178.4	199.4	159.0	150.4
75°	120.6	133.7	139.1	118.8	112.2
77.5°	88.8	89.4	96.5	83.7	80.4
80°	68.7	65.4	73.7	63.6	60.3
82.5°	52.6	48.0	53.6	46.2	44.2
85°	33.5	28.6	30.2	26.8	25.1
87.5°	19.8	17.2	18.2	18.2	16.3
90°	11.7	18.6	24.0	31.0	27.7
92.5°	32.5	35.4	39.5	50.8	53.0
95°	74.4	115.7	64.3	68.2	80.3
97.5°	115.7	210.7	417.6	124.6	106.6
100°	148.0	259.3	830.4	246.2	162.5
102.5°	180.2	298.3	1121.3	643.1	351.4
105°	228.6	343.2	1271.0	1618.9	1070.1
107.5°	278.6	363.2	1213.6	2355.3	2204.6
110°	310.8	391.2	1180.1	2474.8	2657.8



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	344.4	424.8	1146.5	2404.9	2713.8
115°	393.1	473.5	1096.1	2269.5	2650.8
117.5°	444.5	523.9	1083.5	2122.9	2515.2
120°	482.3	557.5	1061.2	2011.3	2420.0
122.5°	510.3	589.7	1031.8	1915.5	2291.3
125°	557.6	632.8	1033.2	1799.6	2126.3
127.5°	596.5	674.4	1032.9	1664.9	1987.8
130°	618.9	700.9	1038.5	1573.7	1881.5
132.5°	644.1	726.2	1035.8	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)