

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: P644550

Luminaire Tested: OMN4DIP-SR4F0-100D150U835-FLLOOB-1DUDD-WW

Issue Date: 2/16/2023



Test Information

Test Method: LM-79-2019
Report Number: P644550
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2203-563-26, G2-2206-689-19)
Test Lab: INNOVATION CENTER
Issue Date: 2/16/2023
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: OMN4DIP-SR4F0-100D150U835-FLLOOB-1DUDD-WW
Description: NEO-RAY CIRQUE SUSPENDED LED LUMINAIRE
DOWNLIGHT - FLAT FROSTED LENS - 1000 LUMENS PER FOOT
UPLIGHT - BATWING OPTIC - 1500 LUMENS PER FOOT
Light Source: 3500K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

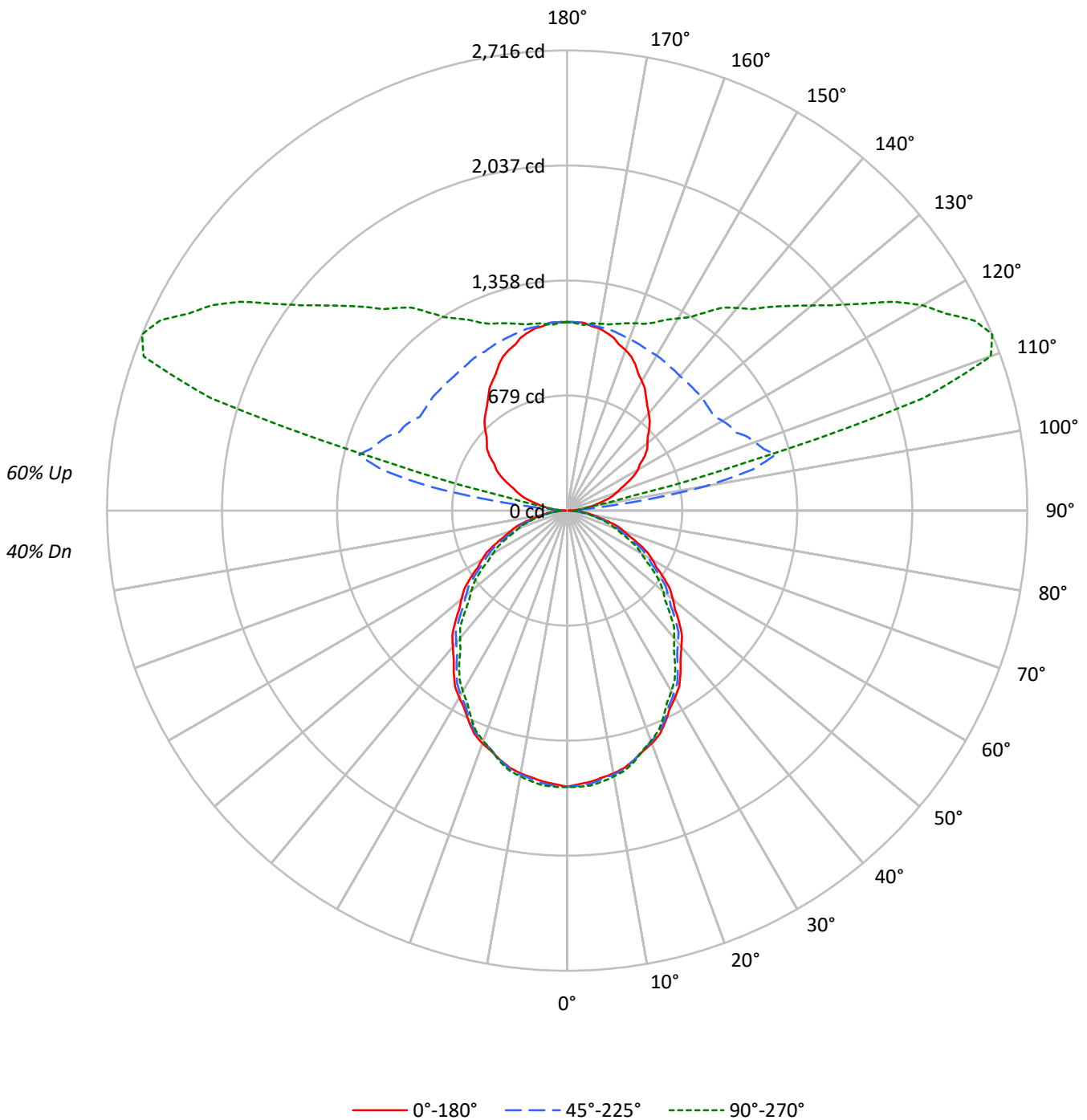
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 9959.3 lumens
Efficiency: N/A
Efficacy: 126.9 lumens/watt
Spacing Criteria (0/90/45): 1.17 / 1.13 / 1.26
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: Semi-Indirect

Input Watts (W): 78.5
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	105	105	105	105	95	95	95	95	78	78	78	62	62	62	47	47	47	40				
1	96	91	87	84	87	83	80	77	68	66	64	54	53	51	41	40	39	34				
2	87	80	74	69	79	73	68	63	60	56	53	48	45	43	36	35	33	28				
3	79	70	63	57	72	64	58	53	53	48	45	42	39	36	32	30	29	24				
4	73	62	54	48	66	57	50	45	47	42	38	38	34	31	29	27	25	21				
5	67	55	47	42	60	51	44	39	42	37	33	34	30	27	26	24	22	18				
6	61	50	42	36	56	46	39	33	38	32	29	31	27	24	24	21	19	16				
7	57	45	37	31	52	41	34	29	34	29	25	28	24	21	22	19	17	14				
8	53	41	33	28	48	37	31	26	31	26	22	25	22	19	20	17	15	13				
9	49	37	30	25	45	34	28	23	29	23	20	23	20	17	18	16	14	11				
10	46	34	27	22	42	31	25	21	26	21	18	22	18	15	17	14	12	10				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	26329	26329	26329
5°	26034	26214	26394
10°	25825	25935	26117
15°	25478	25478	25626
20°	25122	24931	24854
25°	24465	24268	23952
30°	23743	23411	22956
35°	23002	22432	21908
40°	22118	21463	20714
45°	21379	20569	19555
50°	20451	19560	18558
55°	19674	18674	17548
60°	18771	17767	16262
65°	17799	16527	15255
70°	16862	15290	14242
75°	15777	13980	13288
80°	14440	12794	12171
85°	13561	11912	11097

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 21379 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	153.4	1.5
10°-20°	430.5	4.3
20°-30°	625.9	6.3
30°-40°	712.0	7.1
40°-50°	694.2	7.0
50°-60°	592.5	5.9
60°-70°	430.6	4.3
70°-80°	243.5	2.4
80°-90°	77.5	0.8
90°-100°	146.3	1.5
100°-110°	980.5	9.8
110°-120°	1327.2	13.3
120°-130°	1079.4	10.8
130°-140°	866.9	8.7
140°-150°	683.3	6.9
150°-160°	499.6	5.0
160°-170°	310.3	3.1
170°-180°	105.8	1.1
0°-30°	1209.7	12.1
0°-40°	1921.7	19.3
0°-60°	3208.4	32.2
0°-90°	3960.0	39.8
90°-120°	2454.0	24.6
90°-150°	5083.5	51.0
90°-180°	5999.0	60.2
0°-180°	9959.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1631	1631	1631	1631	1631	
5°	1606	1630	1617	1615	1628	152
15°	1524	1544	1524	1522	1533	430
25°	1373	1386	1362	1338	1344	632
35°	1167	1171	1138	1112	1112	729
45°	936	932	901	869	856	721
55°	699	697	663	632	623	624
65°	466	462	433	406	399	463
75°	253	244	224	215	213	268
85°	73	64	64	62	60	78
90°	9	18	27	32	32	11
95°	74	113	63	70	81	76
105°	228	340	1272	1621	1071	242
115°	392	472	1094	2270	2653	390
125°	558	633	1031	1800	2128	495
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	



TEST NUMBER: P644550

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1630.7	1630.7	1630.7	1630.7	1630.7
2.5°	1616.5	1637.3	1625.4	1625.5	1632.5
5°	1606.3	1630.1	1617.4	1615.4	1628.5
7.5°	1589.4	1612.8	1597.8	1595.6	1612.5
10°	1575.2	1596.9	1581.9	1577.8	1593.0
12.5°	1555.7	1577.4	1562.3	1556.5	1571.7
15°	1524.2	1543.7	1524.2	1522.2	1533.1
17.5°	1488.7	1505.6	1482.9	1475.6	1483.8
20°	1462.1	1477.2	1451.0	1440.0	1446.5
22.5°	1428.3	1443.5	1415.5	1399.2	1407.5
25°	1373.3	1386.3	1362.2	1338.0	1344.5
27.5°	1314.3	1324.3	1300.1	1275.3	1277.5
30°	1273.5	1280.0	1255.7	1229.2	1231.3
32.5°	1230.9	1235.7	1209.6	1181.2	1181.6
35°	1167.0	1171.3	1138.1	1111.5	1111.5
37.5°	1099.1	1101.7	1066.3	1037.4	1034.3
40°	1049.4	1053.7	1018.3	989.4	982.8
42.5°	1003.3	1004.1	972.2	943.2	934.9
45°	936.3	931.9	900.8	869.4	856.4
47.5°	863.9	863.9	828.4	797.1	784.9
50°	814.2	814.2	778.7	747.5	738.8
52.5°	768.1	766.3	732.6	701.2	689.1
55°	698.9	696.7	663.4	632.1	623.4
57.5°	625.6	625.6	594.6	561.1	551.5
60°	581.3	581.3	550.2	516.6	503.6
62.5°	533.4	531.6	500.5	470.6	462.8
65°	465.9	461.6	432.6	405.9	399.3
67.5°	401.6	397.2	366.5	345.1	340.8
70°	357.2	352.9	323.9	306.1	301.7
72.5°	314.6	308.5	283.1	268.8	264.5
75°	252.9	244.2	224.1	215.2	213.0
77.5°	194.4	179.6	171.3	165.0	162.8
80°	155.3	142.3	137.6	133.1	130.9
82.5°	121.6	108.6	107.4	104.7	102.5
85°	73.2	64.5	64.3	62.1	59.9
87.5°	31.9	28.5	30.3	31.3	31.3
90°	8.9	17.9	27.3	32.1	32.1
92.5°	32.8	34.8	40.6	52.8	56.5
95°	73.8	113.0	62.7	69.9	81.4
97.5°	114.9	208.4	417.8	125.4	107.2
100°	148.5	258.4	830.5	245.4	163.2
102.5°	180.4	295.7	1121.7	643.8	351.9
105°	228.1	340.1	1271.6	1620.9	1071.1
107.5°	278.1	361.8	1214.1	2358.0	2206.6
110°	309.9	389.9	1180.5	2477.6	2660.2



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	343.5	423.5	1146.9	2407.6	2716.2
115°	391.7	471.7	1094.3	2269.9	2653.2
117.5°	443.5	522.1	1081.7	2123.1	2517.4
120°	482.7	555.8	1059.3	2011.5	2422.2
122.5°	508.9	589.3	1031.3	1915.6	2293.4
125°	557.5	632.8	1031.3	1799.6	2128.2
127.5°	595.9	674.3	1032.7	1665.1	1989.6
130°	618.3	700.4	1038.3	1575.1	1883.2
132.5°	644.5	726.6	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)