

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: P644563

Luminaire Tested: OMN4DIP-SR4F0-100D150U935-CLBOOB-1DUDD-WW

Issue Date: 2/16/2023



Test Information

Test Method: LM-79-2019
Report Number: P644563
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-SR4F0-100D150U935-CLBOOB-1DUDD-WW
Description: NEO-RAY CIRQUE SUSPENDED LED LUMINAIRE
DOWNLIGHT - BATWING LENS - 1000 LUMENS PER FOOT
UPLIGHT - BATWING OPTIC - 1500 LUMENS PER FOOT
Light Source: 3500K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

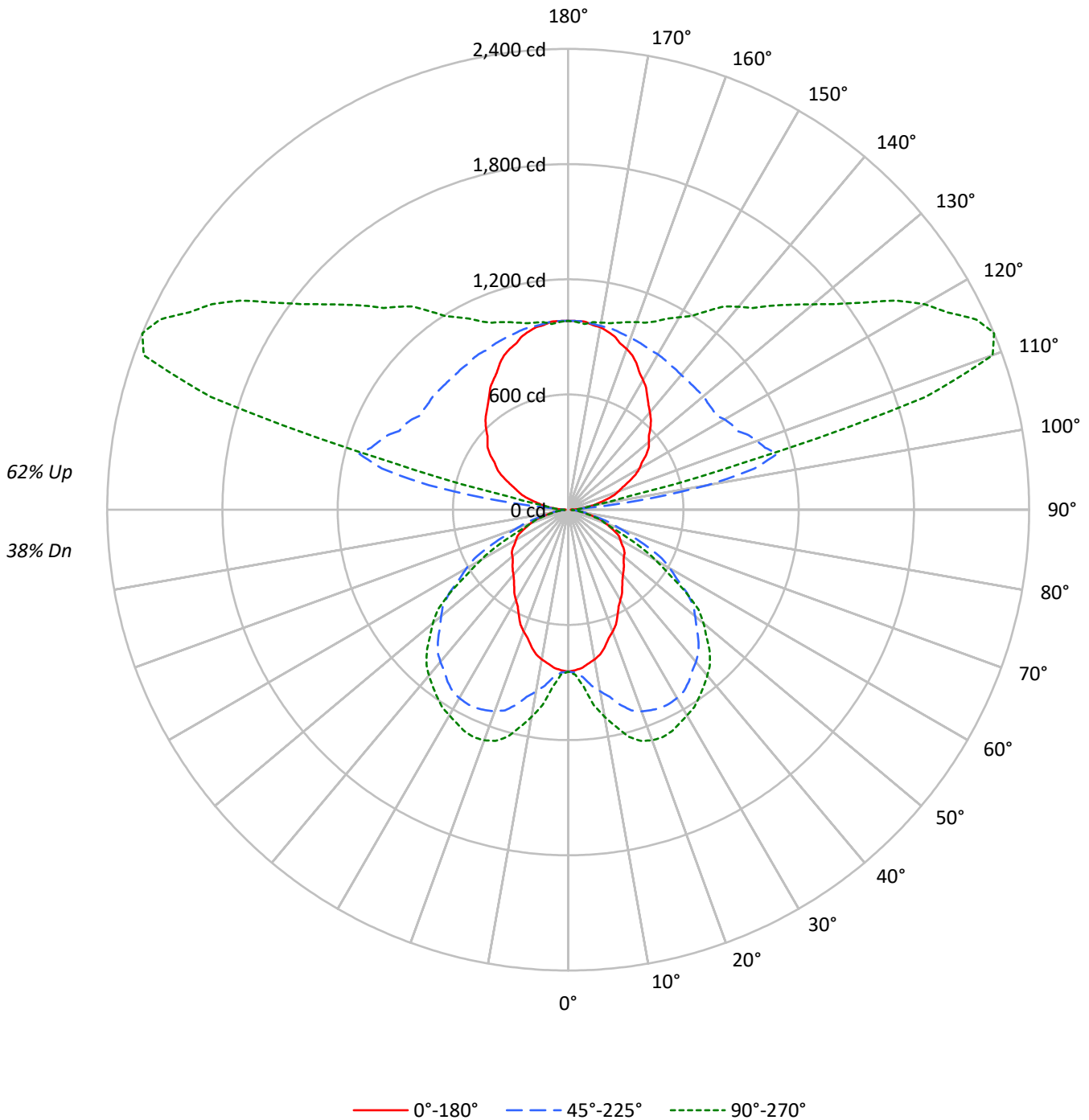
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 8546.3 lumens
Efficiency: N/A
Efficacy: 108.9 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): 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

TEST NUMBER: P644563
CATALOG NUMBER: OMN4DIP-SR4F0-100D150U935-CLBOOB-1DUDD-WW

Luminous Intensity Polar Plot





TEST NUMBER: P644563

CATALOG NUMBER: OMN4DIP-SR4F0-100D150U935-CLBOOB-1DUDD-WW

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	104	104	104	104	95	95	95	95	77	77	77	60	60	60	45	45	45	38				
1	95	91	87	84	86	83	79	77	67	65	63	53	52	50	40	39	38	32				
2	87	79	73	68	78	72	67	63	59	55	52	46	44	42	35	33	32	27				
3	79	70	62	57	71	63	57	52	52	47	44	41	38	35	31	29	27	23				
4	72	61	54	48	65	56	49	44	46	41	37	36	33	30	28	25	23	19				
5	66	55	47	41	60	50	43	38	41	36	32	32	29	26	25	22	20	17				
6	61	49	41	35	55	45	38	32	37	31	27	29	25	22	22	20	18	14				
7	56	44	36	30	51	40	33	28	33	28	24	26	23	20	20	18	15	13				
8	52	40	32	27	47	36	30	25	30	25	21	24	20	17	18	16	14	11				
9	48	36	29	24	44	33	26	22	27	22	19	22	18	15	17	14	12	10				
10	45	33	26	21	41	30	24	20	25	20	17	20	16	14	16	13	11	9				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	13611	13611	13611
5°	13408	14172	14997
10°	12985	15749	17967
15°	12354	17598	20481
20°	11622	19201	21962
25°	10826	20291	22702
30°	10125	21127	23064
35°	9660	21561	23455
40°	9339	21817	23760
45°	9355	21891	23770
50°	9505	21667	23096
55°	9934	21247	20971
60°	10130	19753	17031
65°	10262	17303	12508
70°	9810	13605	9720
75°	8808	10150	8197
80°	7476	8024	6564
85°	7262	6539	5446

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 23770 cd/sqm



TEST NUMBER: P644563

CATALOG NUMBER: OMN4DIP-SR4F0-100D150U935-CLBOOB-1DUDD-WW

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	86.5	1.0
10°-20°	287.3	3.4
20°-30°	477.3	5.6
30°-40°	602.1	7.0
40°-50°	643.7	7.5
50°-60°	568.1	6.6
60°-70°	364.6	4.3
70°-80°	161.7	1.9
80°-90°	44.1	0.5
90°-100°	132.0	1.5
100°-110°	868.8	10.2
110°-120°	1175.3	13.8
120°-130°	955.6	11.2
130°-140°	766.2	9.0
140°-150°	603.8	7.1
150°-160°	441.5	5.2
160°-170°	274.2	3.2
170°-180°	93.5	1.1
0°-30°	851.1	10.0
0°-40°	1453.2	17.0
0°-60°	2665.1	31.2
0°-90°	3235.5	37.9
90°-120°	2176.0	25.5
90°-150°	4501.6	52.7
90°-180°	5311.0	62.1
0°-180°	8546.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	843	843	843	843	843	
5°	827	852	874	904	925	78
15°	739	852	1053	1179	1225	207
25°	608	824	1139	1246	1274	280
35°	490	753	1094	1165	1190	308
45°	410	644	959	1018	1041	317
55°	353	506	755	758	745	313
65°	269	340	453	368	327	263
75°	141	156	163	139	131	151
85°	39	34	35	31	29	41
90°	14	20	24	30	26	11
95°	71	106	59	62	72	71
105°	206	306	1126	1432	946	218
115°	350	421	971	2008	2344	348
125°	495	561	915	1592	1881	440
135°	606	673	916	1310	1503	467
145°	718	778	922	1141	1262	451
155°	841	872	940	1034	1083	386
165°	934	946	965	990	1008	262
175°	984	990	984	977	971	93
180°	984	984	984	984	984	



TEST NUMBER: P644563

CATALOG NUMBER: OMN4DIP-SR4F0-100D150U935-CLBOOB-1DUDD-WW

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	843.0	843.0	843.0	843.0	843.0
2.5°	836.7	849.0	849.3	854.1	860.3
5°	827.3	852.2	874.4	904.3	925.3
7.5°	807.7	852.2	923.0	992.4	1026.9
10°	792.0	853.4	960.6	1053.7	1095.9
12.5°	771.6	852.9	998.3	1110.3	1158.6
15°	739.1	852.2	1052.8	1179.3	1225.3
17.5°	701.5	848.7	1095.5	1222.3	1262.5
20°	676.4	845.1	1117.5	1238.0	1278.2
22.5°	648.1	836.8	1130.0	1245.7	1282.9
25°	607.7	824.4	1139.0	1245.6	1274.3
27.5°	568.1	806.6	1139.4	1229.8	1254.3
30°	543.1	792.3	1133.2	1214.1	1237.1
32.5°	521.1	776.4	1120.6	1195.3	1219.8
35°	490.1	752.7	1093.9	1165.1	1190.0
37.5°	463.5	725.7	1060.2	1129.5	1158.6
40°	443.1	703.8	1035.1	1104.3	1127.3
42.5°	427.4	680.4	1005.3	1072.8	1092.8
45°	409.7	643.6	958.7	1018.0	1041.0
47.5°	390.9	605.6	905.0	961.0	975.9
50°	378.4	577.7	862.6	913.7	919.5
52.5°	370.5	548.4	821.8	854.0	855.2
55°	352.9	506.2	754.8	758.4	745.0
57.5°	329.4	457.0	669.7	650.5	618.3
60°	313.7	422.9	611.7	573.4	527.4
62.5°	298.0	390.4	550.5	488.5	434.8
65°	268.6	339.5	452.9	367.7	327.4
67.5°	234.5	283.5	355.6	275.0	248.2
70°	207.8	246.1	288.2	225.0	205.9
72.5°	182.7	208.8	233.3	186.0	176.1
75°	141.2	156.5	162.7	139.0	131.4
77.5°	103.9	104.7	112.9	97.9	94.1
80°	80.4	76.5	86.3	74.4	70.6
82.5°	61.6	56.2	62.7	54.1	51.8
85°	39.2	33.5	35.3	31.3	29.4
87.5°	23.1	19.7	20.5	20.1	17.8
90°	13.7	19.8	24.1	30.2	26.4
92.5°	33.3	34.7	37.4	47.0	48.0
95°	71.1	105.7	59.3	61.8	72.0
97.5°	107.1	189.6	371.2	111.2	94.8
100°	135.2	232.3	735.8	218.7	144.2
102.5°	163.3	266.8	993.2	569.3	310.9
105°	205.5	306.4	1125.6	1432.3	946.5
107.5°	249.6	323.6	1074.8	2083.6	1949.9
110°	277.8	348.4	1045.2	2189.3	2350.7



TEST NUMBER: P644563

CATALOG NUMBER: OMN4DIP-SR4F0-100D150U935-CLBOOB-1DUDD-WW

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	307.5	378.1	1015.5	2127.5	2400.2
115°	350.0	420.7	970.9	2007.7	2344.5
117.5°	395.4	465.3	959.8	1878.0	2224.5
120°	428.5	495.0	940.0	1779.4	2140.4
122.5°	453.2	523.1	913.7	1694.6	2026.6
125°	494.6	561.1	915.2	1592.2	1880.6
127.5°	528.5	597.8	914.5	1472.9	1758.1
130°	548.3	620.9	919.5	1391.9	1664.1
132.5°	569.9	642.5	916.3	1356.1	1579.9
135°	606.2	672.8	915.5	1309.7	1503.2
137.5°	637.2	708.5	915.5	1258.3	1424.0
140°	661.9	728.5	915.5	1228.3	1379.5
142.5°	686.7	748.4	920.5	1193.4	1335.0
145°	717.6	778.1	921.7	1141.0	1262.0
147.5°	754.7	807.9	929.2	1103.2	1196.4
150°	779.5	827.8	934.1	1078.2	1156.8
152.5°	804.2	847.7	934.1	1058.0	1122.2
155°	841.3	871.6	940.3	1034.2	1082.6
157.5°	871.0	900.0	947.7	1019.0	1054.1
160°	890.8	915.0	952.7	1009.0	1039.3
162.5°	905.7	929.8	957.6	1003.9	1024.4
165°	934.1	946.2	965.0	990.2	1008.3
167.5°	950.2	961.1	971.2	983.8	994.7
170°	965.0	971.1	971.2	983.7	989.8
172.5°	970.0	980.9	976.2	978.8	984.8
175°	983.6	989.6	983.6	977.3	971.2
177.5°	983.6	988.4	983.6	983.5	978.6
180°	983.6	983.6	983.6	983.6	983.6

(END OF REPORT)