

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: P645051

Luminaire Tested: OMN4DIP-SR4F0-75D100U940-FLLOOB-1DUDD-WW

Issue Date: 2/16/2023



Test Information

Test Method: LM-79-2019
Report Number: P645051
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-SR4F0-75D100U940-FLLOOB-1DUDD-WW
Description: NEO-RAY CIRQUE SUSPENDED LED LUMINAIRE
DOWNLIGHT - FLAT FROSTED LENS - 750 LUMENS PER FOOT
UPLIGHT - BATWING OPTIC - 1000 LUMENS PER FOOT
Light Source: 4000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

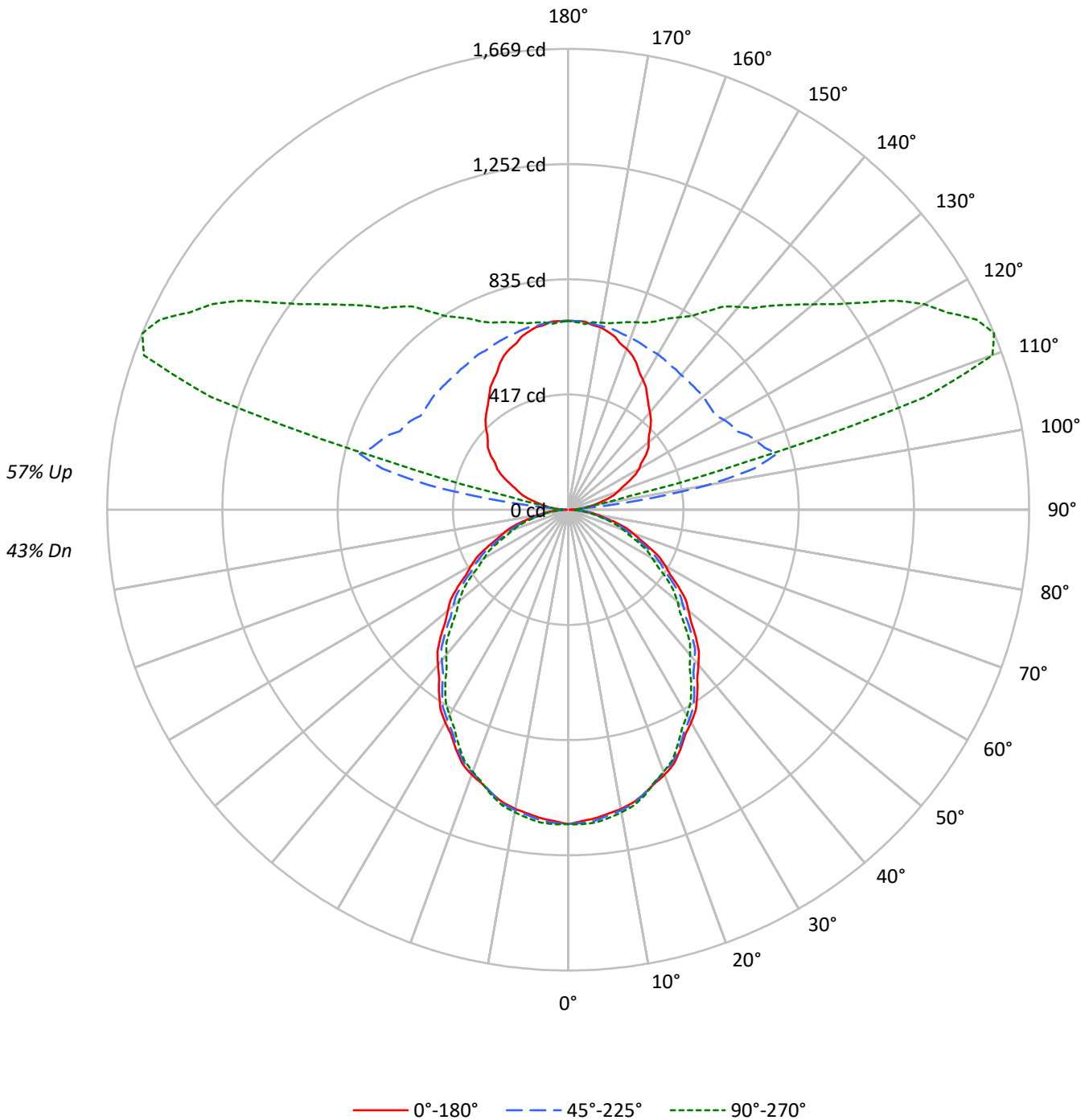
Lumens per Lamp: N/A
Luminaire Lumens: 6453.4 lumens
Efficiency: N/A
Efficacy: 127.0 lumens/watt
Spacing Criteria (0/90/45): 1.17 / 1.13 / 1.26
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: General Diffuse

Input Watts (W): 50.8
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	105	105	105	105	96	96	96	96	79	79	79	64	64	64	50	50	50	43
1	96	92	88	85	88	84	81	78	70	67	65	56	55	53	44	43	42	36
2	88	80	74	69	80	74	68	64	61	57	54	49	47	45	39	37	35	30
3	80	71	64	58	73	65	59	54	54	49	46	44	41	38	34	32	30	26
4	73	63	55	49	67	58	51	46	48	43	39	39	35	32	31	28	26	22
5	67	56	48	42	61	51	44	39	43	38	34	35	31	28	28	25	23	19
6	62	50	42	36	56	46	39	34	39	33	29	32	28	25	25	22	20	17
7	57	45	37	32	52	42	35	30	35	30	26	29	25	22	23	20	18	15
8	53	41	33	28	48	38	31	26	32	27	23	26	22	19	21	18	16	14
9	49	37	30	25	45	35	28	24	29	24	20	24	20	18	20	17	15	12
10	46	34	27	22	42	32	25	21	27	22	18	22	19	16	18	15	13	11

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	18390	18390	18390
5°	18185	18310	18436
10°	18039	18115	18243
15°	17795	17795	17899
20°	17546	17414	17361
25°	17090	16951	16730
30°	16583	16352	16035
35°	16066	15670	15303
40°	15449	14992	14469
45°	14933	14367	13659
50°	14285	13662	12961
55°	13743	13044	12259
60°	13110	12410	11360
65°	12432	11545	10655
70°	11778	10683	9951
75°	11023	9763	9283
80°	10088	8935	8498
85°	9466	8318	7744

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 14933 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	107.1	1.7
10°-20°	300.7	4.7
20°-30°	437.2	6.8
30°-40°	497.3	7.7
40°-50°	484.9	7.5
50°-60°	413.9	6.4
60°-70°	300.8	4.7
70°-80°	170.1	2.6
80°-90°	53.9	0.8
90°-100°	90.7	1.4
100°-110°	602.8	9.3
110°-120°	815.7	12.6
120°-130°	663.3	10.3
130°-140°	532.6	8.3
140°-150°	419.8	6.5
150°-160°	306.9	4.8
160°-170°	190.7	3.0
170°-180°	65.0	1.0
0°-30°	845.0	13.1
0°-40°	1342.3	20.8
0°-60°	2241.1	34.7
0°-90°	2765.9	42.9
90°-120°	1509.2	23.4
90°-150°	3124.9	48.4
90°-180°	3688.0	57.1
0°-180°	6453.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1139	1139	1139	1139	1139	
5°	1122	1139	1130	1128	1138	106
15°	1065	1078	1065	1063	1071	300
25°	959	968	952	935	939	441
35°	815	818	795	776	776	509
45°	654	651	629	607	598	503
55°	488	487	463	442	436	436
65°	325	322	302	284	279	323
75°	177	171	156	150	149	188
85°	51	45	45	43	42	55
90°	6	12	18	21	21	8
95°	47	70	39	44	50	48
105°	141	210	782	996	658	149
115°	241	290	672	1395	1630	240
125°	343	389	634	1106	1308	304
135°	422	468	637	911	1045	324
145°	499	541	641	793	877	313
155°	585	606	654	719	753	269
165°	650	658	671	688	701	182
175°	684	688	684	680	675	65
180°	684	684	684	684	684	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1139.0	1139.0	1139.0	1139.0	1139.0
2.5°	1129.1	1143.7	1135.3	1135.4	1140.3
5°	1122.0	1138.6	1129.7	1128.4	1137.5
7.5°	1110.2	1126.6	1116.1	1114.5	1126.3
10°	1100.3	1115.4	1104.9	1102.1	1112.7
12.5°	1086.6	1101.8	1091.3	1087.2	1097.8
15°	1064.6	1078.3	1064.6	1063.3	1070.8
17.5°	1039.8	1051.7	1035.8	1030.7	1036.4
20°	1021.2	1031.9	1013.5	1005.9	1010.4
22.5°	997.7	1008.3	988.7	977.4	983.1
25°	959.3	968.3	951.5	934.6	939.1
27.5°	918.0	925.0	908.1	890.8	892.3
30°	889.5	894.1	877.1	858.6	860.1
32.5°	859.8	863.1	844.9	825.1	825.4
35°	815.1	818.2	795.0	776.4	776.4
37.5°	767.7	769.5	744.8	724.6	722.5
40°	733.0	736.0	711.3	691.1	686.5
42.5°	700.8	701.4	679.1	658.8	653.0
45°	654.0	650.9	629.2	607.3	598.2
47.5°	603.4	603.4	578.7	556.8	548.3
50°	568.7	568.7	543.9	522.1	516.0
52.5°	536.5	535.3	511.7	489.8	481.3
55°	488.2	486.6	463.4	441.5	435.5
57.5°	437.0	437.0	415.3	391.9	385.3
60°	406.0	406.0	384.3	360.9	351.8
62.5°	372.5	371.3	349.6	328.7	323.3
65°	325.4	322.4	302.2	283.5	278.9
67.5°	280.5	277.5	256.0	241.1	238.0
70°	249.5	246.5	226.3	213.8	210.8
72.5°	219.7	215.5	197.7	187.8	184.7
75°	176.7	170.6	156.5	150.3	148.8
77.5°	135.8	125.4	119.6	115.3	113.7
80°	108.5	99.4	96.1	92.9	91.4
82.5°	84.9	75.8	75.0	73.1	71.6
85°	51.1	45.1	44.9	43.4	41.8
87.5°	22.3	19.8	20.9	21.5	21.5
90°	6.2	11.9	17.9	20.7	20.7
92.5°	21.5	22.4	25.7	33.2	35.4
95°	46.8	70.2	39.1	43.5	50.4
97.5°	71.9	128.8	257.2	77.4	66.1
100°	92.6	159.5	510.6	150.9	100.5
102.5°	112.0	182.3	689.6	395.8	216.2
105°	141.1	209.5	781.6	996.0	658.1
107.5°	171.7	222.8	746.3	1448.9	1355.7
110°	191.1	240.1	725.7	1522.4	1634.4



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	211.8	260.7	705.0	1479.4	1668.8
115°	241.2	290.2	672.5	1394.6	1630.1
117.5°	273.0	321.1	664.8	1304.4	1546.7
120°	297.1	341.9	651.0	1235.9	1488.2
122.5°	313.1	362.4	633.8	1176.9	1409.0
125°	342.9	389.1	633.8	1105.7	1307.5
127.5°	366.3	414.6	634.7	1023.0	1222.4
130°	380.0	430.5	638.1	967.7	1157.0
132.5°	396.0	446.5	636.9	942.9	1098.5
135°	421.5	467.8	636.6	910.6	1045.2
137.5°	443.0	492.6	636.6	874.9	990.1
140°	460.2	506.5	636.6	854.0	959.1
142.5°	477.4	520.3	640.0	829.8	928.2
145°	498.9	541.0	640.9	793.3	877.4
147.5°	524.7	561.7	646.0	767.1	831.8
150°	541.9	575.6	649.5	749.6	804.3
152.5°	559.1	589.4	649.5	735.6	780.2
155°	585.0	606.0	653.8	719.0	752.7
157.5°	605.6	625.8	658.9	708.5	732.9
160°	619.4	636.2	662.4	701.6	722.6
162.5°	629.7	646.5	665.8	698.0	712.3
165°	649.5	657.9	671.0	688.5	701.1
167.5°	660.7	668.2	675.3	684.0	691.6
170°	671.0	675.2	675.3	684.0	688.2
172.5°	674.4	682.0	678.7	680.5	684.7
175°	683.9	688.1	683.9	679.5	675.3
177.5°	683.9	687.2	683.9	683.8	680.4
180°	683.9	683.9	683.9	683.9	683.9

(END OF REPORT)