

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: P644839

Luminaire Tested: OMN4DIP-SR4F0-125D75U940-CLBOOB-1DUDD-WW

Issue Date: 2/16/2023



Test Information

Test Method: LM-79-2019
Report Number: P644839
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-SR4F0-125D75U940-CLBOOB-1DUDD-WW
Description: NEO-RAY CIRQUE SUSPENDED LED LUMINAIRE
DOWNLIGHT - BATWING LENS - 1250 LUMENS PER FOOT
UPLIGHT - BATWING OPTIC - 750 LUMENS PER FOOT
Light Source: 4000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

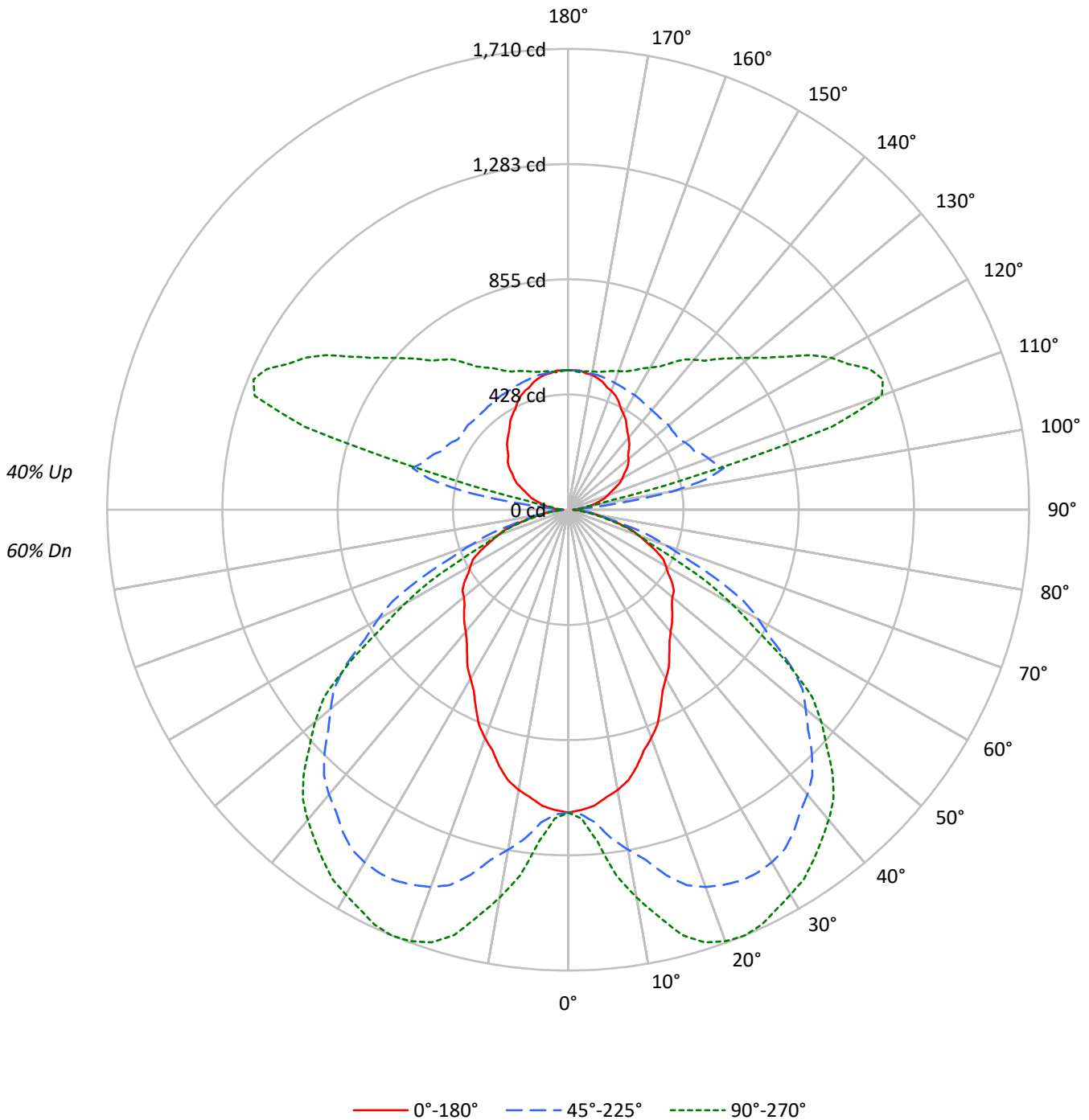
Lumens per Lamp: N/A
Luminaire Lumens: 7129.4 lumens
Efficiency: N/A
Efficacy: 117.3 lumens/watt
Spacing Criteria (0/90/45): 0.99 / 1.87 / 1.75
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: Semi-Direct

Input Watts (W): 60.8
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	110	110	110	110	102	102	102	102	89	89	89	77	77	77	66	66	66	66	66	66	60	
1	100	96	92	89	94	90	86	83	78	76	74	68	66	64	58	57	56	56	56	56	51	
2	91	84	78	72	85	79	73	68	69	65	61	60	57	54	51	49	47	47	47	47	43	
3	83	74	66	60	77	69	62	57	61	55	51	53	49	45	45	42	40	40	40	40	36	
4	76	65	57	51	71	61	54	48	54	48	43	47	42	39	40	37	34	34	34	34	31	
5	70	58	49	43	65	54	47	41	48	42	37	42	37	33	36	32	30	30	30	30	27	
6	64	52	43	37	60	49	41	36	43	37	32	38	33	29	33	29	26	26	26	26	23	
7	59	47	38	33	55	44	36	31	39	33	28	34	29	26	30	26	23	23	23	23	20	
8	55	42	34	29	51	40	33	28	35	29	25	31	26	23	27	23	20	20	20	20	18	
9	51	38	31	26	48	36	29	24	32	26	22	29	24	20	25	21	18	18	18	18	16	
10	48	35	28	23	44	33	26	22	30	24	20	26	22	18	23	19	16	16	16	16	14	

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	18146	18146	18146
5°	17877	18893	19995
10°	17311	20997	23953
15°	16471	23460	27305
20°	15493	25598	29280
25°	14434	27052	30266
30°	13498	28165	30747
35°	12879	28746	31271
40°	12450	29086	31676
45°	12474	29184	31691
50°	12670	28886	30790
55°	13244	28327	27958
60°	13504	26334	22704
65°	13681	23068	16676
70°	13076	18137	12954
75°	11740	13531	10923
80°	9967	10693	8749
85°	9689	8707	7262

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 31691 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	115.3	1.6
10°-20°	383.0	5.4
20°-30°	636.4	8.9
30°-40°	802.8	11.3
40°-50°	858.2	12.0
50°-60°	757.4	10.6
60°-70°	486.1	6.8
70°-80°	215.6	3.0
80°-90°	57.0	0.8
90°-100°	78.4	1.1
100°-110°	463.1	6.5
110°-120°	623.0	8.7
120°-130°	505.8	7.1
130°-140°	403.6	5.7
140°-150°	317.8	4.5
150°-160°	232.4	3.3
160°-170°	144.4	2.0
170°-180°	49.2	0.7
0°-30°	1134.7	15.9
0°-40°	1937.4	27.2
0°-60°	3553.0	49.8
0°-90°	4311.7	60.5
90°-120°	1164.4	16.3
90°-150°	2391.7	33.5
90°-180°	2818.0	39.5
0°-180°	7129.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1124	1124	1124	1124	1124	
5°	1103	1136	1166	1206	1234	104
15°	985	1136	1404	1572	1634	276
25°	810	1099	1518	1661	1699	373
35°	653	1004	1458	1553	1586	410
45°	546	858	1278	1357	1388	422
55°	470	675	1006	1011	993	417
65°	358	453	604	490	436	350
75°	188	209	217	185	175	201
85°	52	45	47	42	39	55
90°	18	22	22	25	20	14
95°	55	67	39	37	41	50
105°	119	171	597	756	498	127
115°	192	228	516	1058	1234	191
125°	265	300	487	840	990	236
135°	319	354	482	689	791	246
145°	378	410	485	601	664	237
155°	443	459	495	544	570	203
165°	492	498	508	521	531	138
175°	518	521	518	514	511	49
180°	518	518	518	518	518	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1123.9	1123.9	1123.9	1123.9	1123.9
2.5°	1115.5	1131.9	1132.2	1138.7	1146.9
5°	1103.0	1136.2	1165.7	1205.5	1233.7
7.5°	1076.8	1136.1	1230.5	1323.0	1369.0
10°	1055.9	1137.7	1280.7	1404.8	1461.0
12.5°	1028.7	1137.1	1330.9	1480.3	1544.7
15°	985.4	1136.1	1403.5	1572.2	1633.5
17.5°	935.2	1131.4	1460.5	1629.5	1683.2
20°	901.7	1126.6	1489.8	1650.4	1704.1
22.5°	864.1	1115.5	1506.5	1660.8	1710.4
25°	810.2	1099.0	1518.5	1660.6	1698.9
27.5°	757.4	1075.4	1519.1	1639.5	1672.2
30°	724.0	1056.2	1510.7	1618.6	1649.2
32.5°	694.7	1035.1	1494.0	1593.5	1626.2
35°	653.4	1003.5	1458.4	1553.3	1586.5
37.5°	617.9	967.5	1413.5	1505.8	1544.7
40°	590.7	938.3	1380.0	1472.2	1502.9
42.5°	569.8	907.1	1340.3	1430.3	1456.9
45°	546.3	858.0	1278.1	1357.2	1387.9
47.5°	521.2	807.4	1206.5	1281.2	1301.1
50°	504.4	770.2	1150.0	1218.1	1225.8
52.5°	494.0	731.1	1095.7	1138.6	1140.1
55°	470.5	674.9	1006.3	1011.1	993.2
57.5°	439.1	609.3	892.8	867.3	824.4
60°	418.2	563.9	815.5	764.4	703.1
62.5°	397.3	520.5	733.9	651.3	579.7
65°	358.1	452.6	603.8	490.2	436.5
67.5°	312.6	378.0	474.1	366.7	330.9
70°	277.0	328.2	384.2	300.0	274.4
72.5°	243.6	278.4	311.0	248.0	234.7
75°	188.2	208.6	216.9	185.3	175.1
77.5°	138.5	139.5	150.5	130.6	125.5
80°	107.2	102.0	115.0	99.2	94.1
82.5°	82.1	74.9	83.6	72.1	69.0
85°	52.3	44.6	47.0	41.8	39.2
87.5°	30.8	25.3	25.3	23.8	20.8
90°	18.3	21.5	22.2	25.3	20.2
92.5°	32.4	29.4	27.9	31.6	29.1
95°	54.8	66.9	39.1	37.2	41.0
97.5°	71.9	110.7	201.4	61.7	51.5
100°	85.4	131.9	392.1	118.3	77.5
102.5°	98.9	150.0	527.6	301.6	164.0
105°	119.2	170.8	597.3	755.5	498.3
107.5°	142.2	178.3	570.6	1098.4	1026.5
110°	155.7	191.4	554.9	1154.1	1237.5



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	171.3	207.0	539.3	1121.5	1263.5
115°	192.2	227.8	515.9	1058.5	1234.2
117.5°	215.8	251.3	510.0	990.2	1171.1
120°	231.9	266.9	499.6	938.3	1126.8
122.5°	244.9	280.5	484.5	893.6	1066.8
125°	265.1	300.1	486.6	839.7	990.0
127.5°	281.4	319.1	484.6	776.6	925.5
130°	291.8	330.0	487.2	732.7	876.0
132.5°	300.6	338.9	483.0	713.9	831.7
135°	319.1	354.2	482.0	689.4	791.3
137.5°	335.4	373.0	482.0	662.4	749.7
140°	348.5	383.5	482.0	646.6	726.2
142.5°	361.5	394.0	484.6	628.3	702.8
145°	377.8	409.6	485.2	600.7	664.3
147.5°	397.3	425.3	489.1	580.8	629.8
150°	410.3	435.8	491.7	567.6	609.0
152.5°	423.4	446.3	491.7	557.0	590.7
155°	442.9	458.8	495.0	544.4	569.9
157.5°	458.5	473.8	498.9	536.4	554.9
160°	468.9	481.7	501.5	531.2	547.1
162.5°	476.8	489.5	504.1	528.5	539.3
165°	491.7	498.1	508.0	521.3	530.8
167.5°	500.2	505.9	511.3	517.9	523.7
170°	508.0	511.2	511.3	517.9	521.0
172.5°	510.6	516.4	513.9	515.3	518.4
175°	517.8	521.0	517.8	514.5	511.3
177.5°	517.8	520.3	517.8	517.7	515.2
180°	517.8	517.8	517.8	517.8	517.8

(END OF REPORT)