

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: P644871

Luminaire Tested: OMN4DIP-SR4F0-50D100U940-FLLOOB-1DUDD-WW

Issue Date: 2/16/2023



Test Information

Test Method: LM-79-2019
Report Number: P644871
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-SR4F0-50D100U940-FLLOOB-1DUDD-WW
Description: NEO-RAY CIRQUE SUSPENDED LED LUMINAIRE
DOWNLIGHT - FLAT FROSTED LENS - 500 LUMENS PER FOOT
UPLIGHT - BATWING OPTIC - 1000 LUMENS PER FOOT
Light Source: 4000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

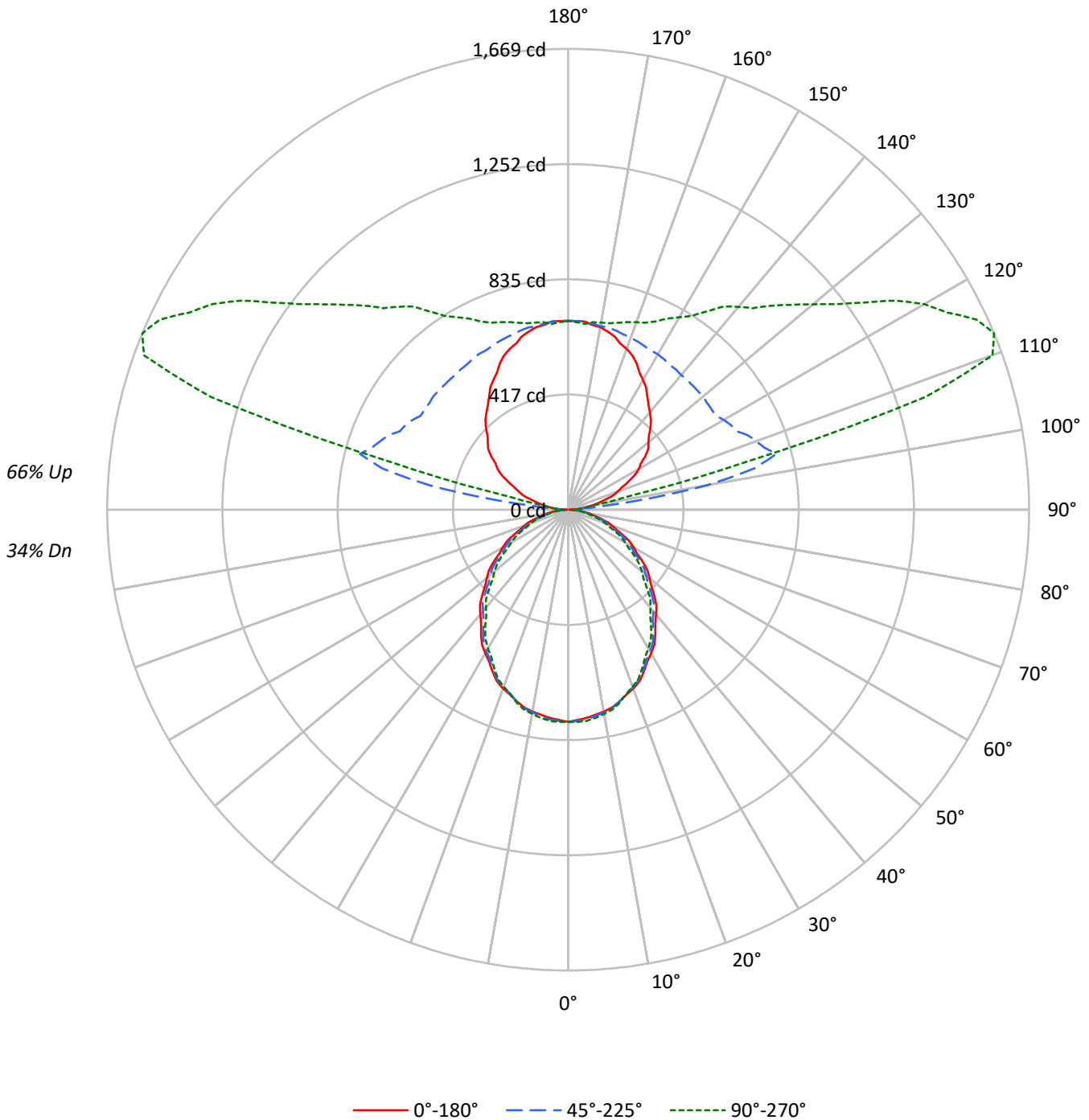
Lumens per Lamp: N/A
Luminaire Lumens: 5550.1 lumens
Efficiency: N/A
Efficacy: 128.2 lumens/watt
Spacing Criteria (0/90/45): 1.17 / 1.13 / 1.26
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: Semi-Indirect

Input Watts (W): 43.3
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										
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	50	30	10	0														
RCR																																						
0	103	103	103	103	93	93	93	93	74	74	74	57	57	57	41	41	41	34																				
1	94	90	86	83	85	81	78	75	65	63	61	50	49	47	36	35	35	28																				
2	86	79	73	68	77	71	66	62	57	53	50	44	42	40	32	31	29	24																				
3	78	69	62	56	70	63	57	52	50	46	42	39	36	34	28	27	25	20																				
4	72	61	53	48	64	55	49	44	45	40	36	35	31	29	25	23	22	18																				
5	66	54	47	41	59	49	43	37	40	35	31	31	28	25	23	21	19	15																				
6	60	49	41	35	54	44	37	32	36	31	27	28	25	22	21	18	17	13																				
7	56	44	36	31	50	40	33	28	33	27	24	26	22	19	19	17	15	12																				
8	52	40	32	27	47	36	30	25	30	25	21	23	20	17	17	15	13	11																				
9	48	36	29	24	43	33	27	22	27	22	19	21	18	15	16	14	12	10																				
10	45	33	26	21	40	30	24	20	25	20	17	20	16	14	15	13	11	9																				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	12411	12411	12411
5°	12272	12357	12443
10°	12175	12226	12311
15°	12010	12010	12080
20°	11842	11753	11716
25°	11533	11441	11291
30°	11192	11037	10821
35°	10843	10575	10328
40°	10427	10117	9765
45°	10076	9695	9218
50°	9640	9221	8749
55°	9272	8802	8273
60°	8848	8376	7666
65°	8390	7790	7194
70°	7950	7209	6713
75°	7436	6588	6263
80°	6806	6025	5737
85°	6391	5613	5224

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 10076 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	72.3	1.3
10°-20°	202.9	3.7
20°-30°	295.1	5.3
30°-40°	335.6	6.0
40°-50°	327.2	5.9
50°-60°	279.3	5.0
60°-70°	203.0	3.7
70°-80°	114.8	2.1
80°-90°	36.9	0.7
90°-100°	88.5	1.6
100°-110°	601.6	10.8
110°-120°	814.9	14.7
120°-130°	662.9	11.9
130°-140°	532.6	9.6
140°-150°	419.8	7.6
150°-160°	306.9	5.5
160°-170°	190.7	3.4
170°-180°	65.0	1.2
0°-30°	570.3	10.3
0°-40°	905.9	16.3
0°-60°	1512.4	27.3
0°-90°	1867.1	33.6
90°-120°	1505.1	27.1
90°-150°	3120.4	56.2
90°-180°	3683.0	66.4
0°-180°	5550.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	769	769	769	769	769	
5°	757	768	762	762	768	72
15°	718	728	718	718	723	203
25°	647	654	642	631	634	298
35°	550	552	536	524	524	343
45°	441	439	425	410	404	340
55°	329	328	313	298	294	294
65°	220	218	204	191	188	218
75°	119	115	106	101	100	127
85°	34	30	30	29	28	37
90°	4	9	15	18	18	6
95°	43	68	38	42	49	45
105°	139	208	781	996	658	147
115°	240	289	672	1395	1630	238
125°	342	388	633	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°	768.7	768.7	768.7	768.7	768.7
2.5°	762.0	771.8	766.2	766.3	769.5
5°	757.2	768.4	762.4	761.5	767.7
7.5°	749.2	760.3	753.2	752.1	760.1
10°	742.6	752.8	745.7	743.8	750.9
12.5°	733.4	743.6	736.5	733.7	740.9
15°	718.5	727.7	718.5	717.6	722.7
17.5°	701.8	709.7	699.0	695.6	699.5
20°	689.2	696.4	684.0	678.8	681.9
22.5°	673.3	680.5	667.3	659.6	663.5
25°	647.4	653.5	642.2	630.7	633.8
27.5°	619.6	624.3	612.9	601.2	602.2
30°	600.3	603.4	592.0	579.4	580.4
32.5°	580.2	582.5	570.2	556.8	557.0
35°	550.1	552.2	536.5	524.0	524.0
37.5°	518.1	519.3	502.6	489.0	487.6
40°	494.7	496.7	480.0	466.4	463.3
42.5°	472.9	473.3	458.3	444.6	440.7
45°	441.3	439.3	424.6	409.8	403.7
47.5°	407.3	407.3	390.5	375.7	370.0
50°	383.8	383.8	367.1	352.4	348.3
52.5°	362.1	361.3	345.3	330.6	324.8
55°	329.4	328.4	312.7	298.0	293.9
57.5°	294.9	294.9	280.3	264.5	260.0
60°	274.0	274.0	259.4	243.5	237.4
62.5°	251.4	250.6	235.9	221.8	218.2
65°	219.6	217.6	203.9	191.3	188.3
67.5°	189.3	187.3	172.8	162.7	160.6
70°	168.4	166.3	152.7	144.3	142.2
72.5°	148.3	145.4	133.5	126.7	124.7
75°	119.2	115.1	105.6	101.4	100.4
77.5°	91.6	84.7	80.7	77.8	76.8
80°	73.2	67.1	64.8	62.7	61.7
82.5°	57.3	51.2	50.6	49.3	48.3
85°	34.5	30.4	30.3	29.3	28.2
87.5°	15.1	13.7	14.7	15.3	15.3
90°	4.2	9.4	14.9	18.1	18.1
92.5°	17.9	19.8	23.5	31.1	33.7
95°	42.8	68.1	37.5	42.0	49.4
97.5°	68.4	126.7	255.8	76.5	65.6
100°	89.0	157.5	509.6	150.4	100.0
102.5°	108.9	180.6	688.5	395.3	216.1
105°	138.6	208.0	780.6	995.5	658.1
107.5°	169.3	221.3	745.3	1448.4	1355.7
110°	189.1	238.6	724.7	1521.9	1634.4



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	209.8	259.2	704.0	1478.9	1668.8
115°	239.7	289.1	672.0	1394.6	1630.1
117.5°	271.5	320.1	664.3	1304.4	1546.7
120°	295.6	340.9	650.5	1235.9	1488.2
122.5°	312.0	361.4	633.3	1176.9	1409.0
125°	341.9	388.1	633.3	1105.7	1307.5
127.5°	365.8	413.7	634.2	1023.0	1222.4
130°	379.5	430.0	637.6	967.7	1157.0
132.5°	395.9	446.4	636.8	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)