

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: P644674

Luminaire Tested: OMN4DIP-SR4F0-125D100U840-FLLOOB-1DUDD-WW

Issue Date: 2/16/2023



Test Information

Test Method: LM-79-2019
Report Number: P644674
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-SR4F0-125D100U840-FLLOOB-1DUDD-WW
Description: NEO-RAY CIRQUE SUSPENDED LED LUMINAIRE
DOWNLIGHT - FLAT FROSTED LENS - 1250 LUMENS PER FOOT
UPLIGHT - BATWING OPTIC - 1000 LUMENS PER FOOT
Light Source: 4000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

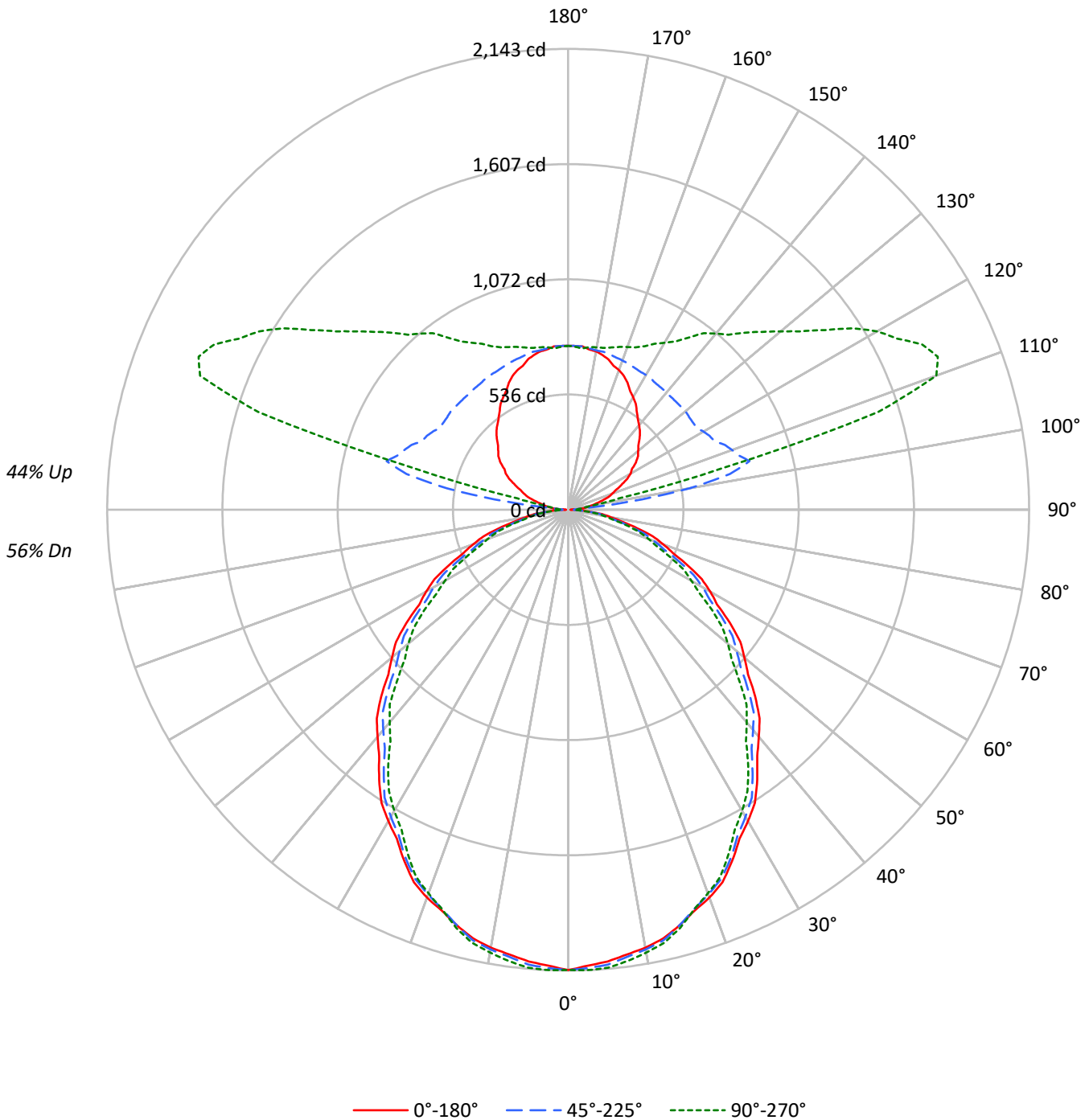
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 9316.7 lumens
Efficiency: N/A
Efficacy: 135.0 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): 69
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										
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	109	109	109	109	101	101	101	101	87	87	87	73	73	73	61	61	61	56																				
1	99	95	91	87	92	88	85	82	76	74	71	65	63	61	54	53	52	47																				
2	90	83	77	72	84	77	72	67	67	63	59	57	54	51	48	46	44	40																				
3	83	73	66	60	76	68	62	56	59	54	50	51	47	44	43	40	38	34																				
4	76	65	57	51	70	61	53	48	53	47	43	45	41	38	38	35	32	29																				
5	69	58	50	44	64	54	47	41	47	41	37	41	36	33	35	31	28	25																				
6	64	52	44	38	59	49	41	36	43	37	32	37	32	29	31	28	25	22																				
7	59	47	39	33	55	44	37	32	39	33	29	34	29	25	29	25	22	20																				
8	55	43	35	30	51	40	33	28	35	30	25	31	26	23	26	23	20	18																				
9	51	39	32	26	48	37	30	25	32	27	23	28	24	21	24	21	18	16																				
10	48	36	29	24	45	34	27	23	30	24	21	26	22	19	23	19	17	15																				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	34563	34563	34563
5°	34175	34412	34647
10°	33901	34046	34283
15°	33446	33446	33640
20°	32977	32727	32627
25°	32117	31857	31442
30°	31167	30732	30136
35°	30194	29449	28759
40°	29036	28176	27193
45°	28065	27001	25670
50°	26849	25679	24360
55°	25824	24513	23037
60°	24642	23324	21348
65°	23366	21696	20027
70°	22135	20073	18699
75°	20711	18353	17442
80°	18959	16792	15974
85°	17803	15654	14561

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 28065 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	201.4	2.2
10°-20°	565.1	6.1
20°-30°	821.6	8.8
30°-40°	934.6	10.0
40°-50°	911.3	9.8
50°-60°	777.9	8.3
60°-70°	565.3	6.1
70°-80°	319.7	3.4
80°-90°	100.1	1.1
90°-100°	106.1	1.1
100°-110°	674.6	7.2
110°-120°	910.6	9.8
120°-130°	740.2	7.9
130°-140°	593.6	6.4
140°-150°	467.8	5.0
150°-160°	342.0	3.7
160°-170°	212.4	2.3
170°-180°	72.4	0.8
0°-30°	1588.1	17.0
0°-40°	2522.7	27.1
0°-60°	4211.8	45.2
0°-90°	5196.9	55.8
90°-120°	1691.3	18.2
90°-150°	3492.9	37.5
90°-180°	4120.0	44.2
0°-180°	9316.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2141	2141	2141	2141	2141	
5°	2109	2140	2123	2121	2138	200
15°	2001	2026	2001	1998	2012	564
25°	1803	1820	1788	1756	1765	829
35°	1532	1538	1494	1459	1459	957
45°	1229	1223	1182	1141	1124	946
55°	917	915	871	830	818	819
65°	612	606	568	533	524	607
75°	332	321	294	282	280	352
85°	96	85	84	82	79	103
90°	12	19	27	29	29	13
95°	62	83	47	52	58	60
105°	163	237	873	1111	733	173
115°	272	326	751	1554	1816	271
125°	384	436	707	1232	1457	341
135°	470	521	709	1015	1165	362
145°	556	603	714	884	978	349
155°	652	675	728	801	839	299
165°	724	733	748	767	781	203
175°	762	767	762	757	752	72
180°	762	762	762	762	762	

TEST NUMBER: P644674

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2140.7	2140.7	2140.7	2140.7	2140.7
2.5°	2122.0	2149.3	2133.7	2133.9	2143.0
5°	2108.6	2139.9	2123.2	2120.7	2137.7
7.5°	2086.5	2117.2	2097.5	2094.6	2116.8
10°	2067.8	2096.3	2076.6	2071.2	2091.1
12.5°	2042.2	2070.7	2050.9	2043.2	2063.2
15°	2000.9	2026.5	2000.9	1998.3	2012.5
17.5°	1954.3	1976.5	1946.7	1937.0	1947.8
20°	1919.3	1939.2	1904.7	1890.4	1898.9
22.5°	1875.0	1895.0	1858.1	1836.8	1847.7
25°	1802.8	1819.9	1788.2	1756.4	1764.9
27.5°	1725.3	1738.4	1706.7	1674.1	1677.0
30°	1671.7	1680.3	1648.4	1613.6	1616.4
32.5°	1615.8	1622.1	1587.9	1550.6	1551.2
35°	1531.9	1537.6	1494.1	1459.1	1459.1
37.5°	1442.8	1446.2	1399.7	1361.8	1357.8
40°	1377.6	1383.3	1336.8	1298.8	1290.2
42.5°	1317.0	1318.1	1276.2	1238.1	1227.3
45°	1229.1	1223.4	1182.5	1141.3	1124.2
47.5°	1134.1	1134.1	1087.5	1046.4	1030.4
50°	1068.9	1068.9	1022.3	981.2	969.8
52.5°	1008.3	1006.0	961.7	920.6	904.6
55°	917.4	914.6	870.8	829.8	818.4
57.5°	821.3	821.3	780.5	736.6	724.0
60°	763.1	763.1	722.3	678.2	661.1
62.5°	700.2	697.9	657.0	617.8	607.5
65°	611.6	605.9	567.9	532.8	524.2
67.5°	527.2	521.5	481.1	453.0	447.4
70°	468.9	463.2	425.2	401.8	396.1
72.5°	413.0	405.0	371.6	352.9	347.2
75°	332.0	320.6	294.2	282.4	279.6
77.5°	255.1	235.8	224.8	216.6	213.8
80°	203.9	186.8	180.6	174.7	171.8
82.5°	159.6	142.5	141.0	137.4	134.6
85°	96.1	84.7	84.5	81.5	78.6
87.5°	41.9	36.6	38.0	38.4	38.4
90°	11.6	19.2	27.1	28.9	28.9
92.5°	32.5	30.9	33.9	42.0	43.5
95°	61.6	83.1	47.1	52.0	58.5
97.5°	88.4	148.3	290.0	88.3	74.8
100°	111.4	182.6	571.4	169.4	113.1
102.5°	132.1	207.0	770.8	442.2	241.2
105°	163.1	237.1	873.3	1111.0	733.3
107.5°	197.1	251.9	834.0	1615.7	1510.7
110°	217.7	271.1	811.0	1697.6	1821.3



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	240.7	294.1	788.0	1649.7	1859.6
115°	272.3	325.7	750.6	1554.0	1816.5
117.5°	307.8	360.3	742.0	1453.6	1723.5
120°	334.6	383.3	726.6	1377.1	1658.3
122.5°	351.5	406.2	707.4	1311.4	1570.1
125°	384.5	436.0	707.4	1232.1	1457.0
127.5°	409.3	464.1	708.4	1140.0	1362.1
130°	424.7	480.9	712.2	1078.4	1289.3
132.5°	441.5	497.8	709.9	1050.7	1224.1
135°	469.7	521.2	709.3	1014.7	1164.6
137.5°	493.7	549.0	709.3	974.9	1103.3
140°	512.8	564.4	709.3	951.6	1068.8
142.5°	532.0	579.8	713.2	924.6	1034.3
145°	556.0	602.8	714.1	884.0	977.7
147.5°	584.7	626.0	719.9	854.8	926.9
150°	603.9	641.4	723.7	835.3	896.2
152.5°	623.1	656.8	723.7	819.7	869.4
155°	651.8	675.2	728.5	801.2	838.7
157.5°	674.8	697.3	734.3	789.5	816.7
160°	690.2	708.9	738.1	781.8	805.2
162.5°	701.7	720.4	741.9	777.7	793.7
165°	723.7	733.1	747.7	767.2	781.2
167.5°	736.2	744.6	752.5	762.2	770.7
170°	747.7	752.4	752.5	762.2	766.8
172.5°	751.5	759.9	756.3	758.3	763.0
175°	762.1	766.7	762.1	757.2	752.5
177.5°	762.1	765.8	762.1	762.0	758.2
180°	762.1	762.1	762.1	762.1	762.1

(END OF REPORT)