

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: P644809

Luminaire Tested: OMN4DIP-SR4F0-125D50U940-CLBOOB-1DUDD-WW

Issue Date: 2/16/2023



Test Information

Test Method: LM-79-2019
Report Number: P644809
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-SR4F0-125D50U940-CLBOOB-1DUDD-WW
Description: NEO-RAY CIRQUE SUSPENDED LED LUMINAIRE
DOWNLIGHT - BATWING LENS - 1250 LUMENS PER FOOT
UPLIGHT - BATWING OPTIC - 500 LUMENS PER FOOT
Light Source: 4000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

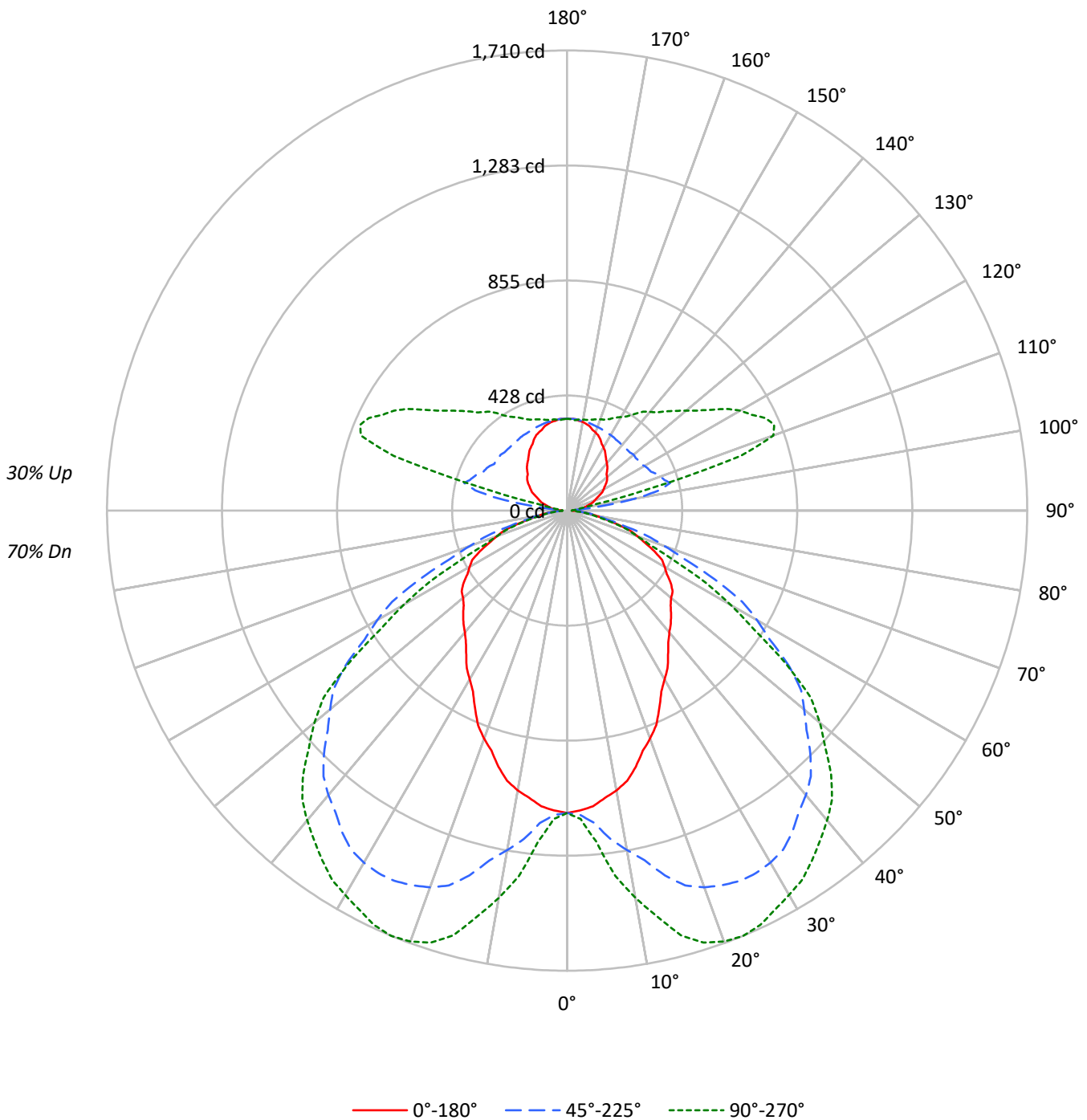
Lumens per Lamp: N/A
Luminaire Lumens: 6180.4 lumens
Efficiency: N/A
Efficacy: 113.2 lumens/watt
Spacing Criteria (0/90/45): 0.99 / 1.87 / 1.75
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: Semi-Direct

Input Watts (W): 54.6
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	112	112	112	112	106	106	106	106	94	94	94	84	84	84	74	74	74	74	74	74	70	
1	102	98	94	90	97	93	89	86	83	80	78	74	72	70	66	64	63	63	63	63	59	
2	93	86	79	74	88	81	76	71	73	68	65	65	62	59	58	55	53	53	53	53	49	
3	85	75	68	61	80	71	64	59	64	59	54	57	53	50	51	48	45	45	45	45	42	
4	78	66	58	52	73	63	56	50	57	51	46	51	46	42	46	42	39	39	39	39	36	
5	71	59	51	44	67	56	48	43	51	44	40	46	40	36	41	37	33	33	33	33	31	
6	66	53	44	38	62	50	43	37	46	39	34	41	36	32	37	33	29	29	29	29	27	
7	61	48	39	34	57	45	38	32	41	35	30	37	32	28	34	29	26	26	26	26	23	
8	56	43	35	30	53	41	34	29	38	31	27	34	29	25	31	26	23	23	23	23	21	
9	52	39	32	26	49	38	30	25	34	28	24	31	26	22	28	24	21	21	21	21	18	
10	49	36	29	24	46	35	28	23	32	26	21	29	24	20	26	22	19	19	19	19	17	

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	1.9
10°-20°	383.0	6.2
20°-30°	636.4	10.3
30°-40°	802.8	13.0
40°-50°	858.2	13.9
50°-60°	757.4	12.3
60°-70°	486.1	7.9
70°-80°	215.6	3.5
80°-90°	56.6	0.9
90°-100°	56.6	0.9
100°-110°	308.3	5.0
110°-120°	413.0	6.7
120°-130°	334.9	5.4
130°-140°	266.1	4.3
140°-150°	209.4	3.4
150°-160°	153.1	2.5
160°-170°	95.1	1.5
170°-180°	32.4	0.5
0°-30°	1134.7	18.4
0°-40°	1937.4	31.3
0°-60°	3553.0	57.5
0°-90°	4311.4	69.8
90°-120°	778.0	12.6
90°-150°	1588.4	25.7
90°-180°	1869.0	30.2
0°-180°	6180.4	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	20	20	22	17	13
95°	46	50	30	27	29	41
105°	85	118	396	499	328	91
115°	131	154	343	698	813	131
125°	177	200	323	554	652	158
135°	210	233	318	454	522	163
145°	249	270	320	396	438	156
155°	292	302	326	359	376	134
165°	324	328	335	344	350	91
175°	341	343	341	339	337	32
180°	341	341	341	341	341	



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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	25.1	24.9	23.2	20.1
90°	18.3	20.4	20.0	22.0	16.9
92.5°	29.7	25.7	23.0	24.7	21.3
95°	45.9	50.4	30.2	27.2	28.8
97.5°	56.1	79.1	136.1	42.4	34.8
100°	64.3	92.3	261.1	79.7	52.0
102.5°	72.5	104.2	350.3	199.8	108.2
105°	84.8	117.9	396.3	498.7	328.3
107.5°	99.7	122.0	378.7	724.7	676.4
110°	108.0	130.6	368.4	761.3	815.4



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	118.3	140.9	358.1	739.9	832.6
115°	131.1	153.7	342.6	698.4	813.3
117.5°	146.5	169.2	338.7	653.4	771.7
120°	156.4	179.5	331.9	619.1	742.5
122.5°	165.0	187.7	321.2	589.7	703.0
125°	177.4	200.4	323.3	554.2	652.4
127.5°	187.2	212.7	321.1	512.5	609.9
130°	194.1	219.2	322.8	482.8	577.2
132.5°	198.5	223.6	318.6	470.4	548.1
135°	210.3	233.4	317.6	454.3	521.5
137.5°	221.0	245.8	317.6	436.5	494.0
140°	229.6	252.7	317.6	426.1	478.5
142.5°	238.2	259.6	319.3	414.0	463.1
145°	248.9	269.9	319.7	395.8	437.8
147.5°	261.8	280.3	322.3	382.7	415.0
150°	270.4	287.2	324.0	374.0	401.3
152.5°	279.0	294.1	324.0	367.0	389.3
155°	291.8	302.3	326.2	358.7	375.5
157.5°	302.1	312.2	328.8	353.5	365.7
160°	309.0	317.4	330.5	350.0	360.5
162.5°	314.2	322.6	332.2	348.2	355.4
165°	324.0	328.2	334.8	343.5	349.8
167.5°	329.6	333.4	336.9	341.3	345.1
170°	334.8	336.9	336.9	341.2	343.3
172.5°	336.5	340.3	338.6	339.5	341.6
175°	341.2	343.3	341.2	339.0	336.9
177.5°	341.2	342.9	341.2	341.2	339.5
180°	341.2	341.2	341.2	341.2	341.2

(END OF REPORT)