

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: P644623

Luminaire Tested: OMN4DIP-SR4F0-100D50U935-CLBOOB-1DUDD-WW

Issue Date: 2/16/2023



Test Information

Test Method: LM-79-2019
Report Number: P644623
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-SR4F0-100D50U935-CLBOOB-1DUDD-WW
Description: NEO-RAY CIRQUE SUSPENDED LED LUMINAIRE
DOWNLIGHT - BATWING LENS - 1000 LUMENS PER FOOT
UPLIGHT - BATWING OPTIC - 500 LUMENS PER FOOT
Light Source: 3500K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

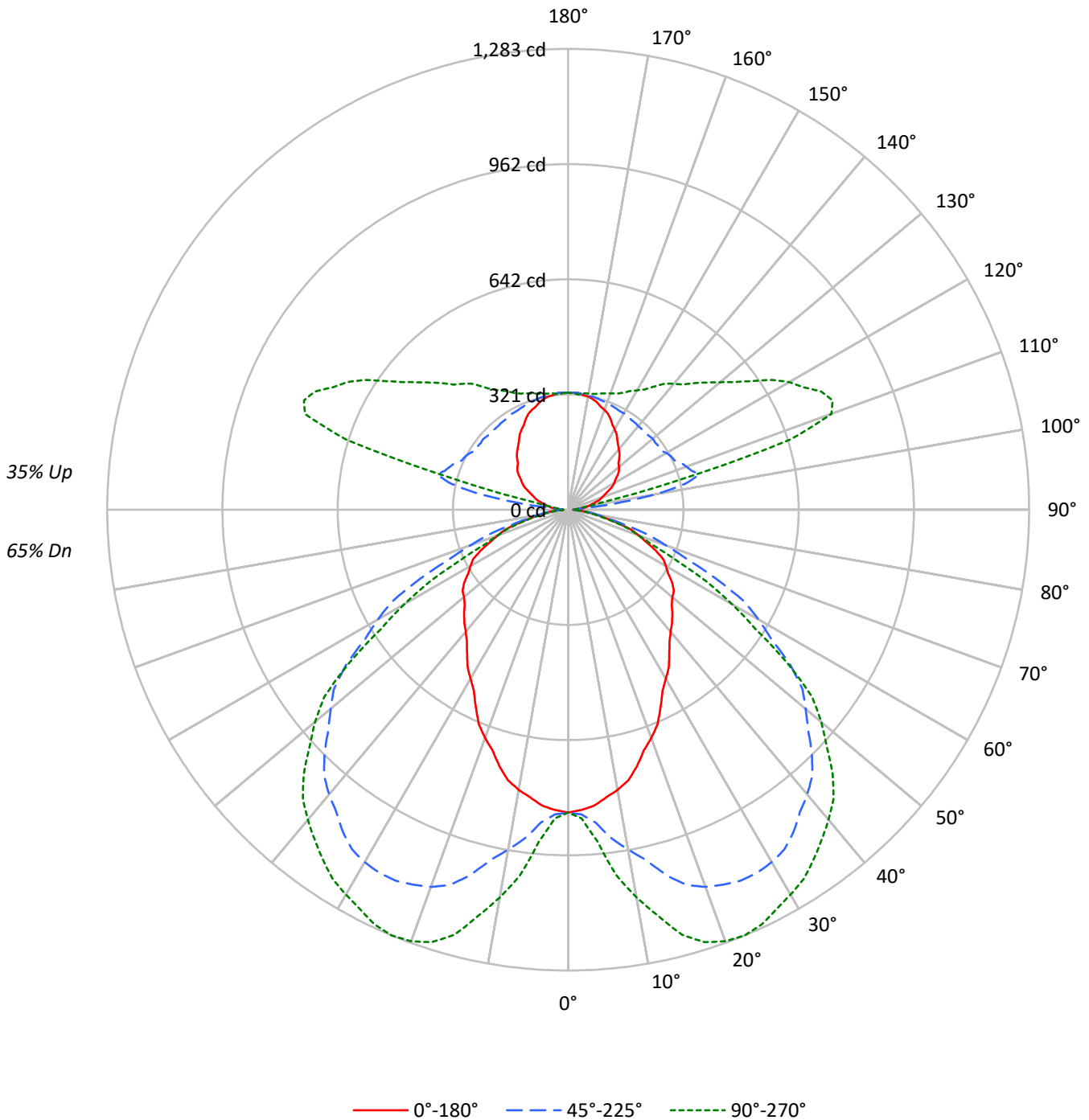
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5013.7 lumens
Efficiency: N/A
Efficacy: 112.7 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): 44.5
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	111	111	111	111	104	104	104	104	91	91	91	80	80	80	69	69	69	65				
1	101	97	93	89	95	91	88	85	80	78	76	71	69	67	62	60	59	55				
2	92	85	78	73	86	80	74	69	71	66	63	62	59	56	54	52	50	46				
3	84	74	67	61	79	70	63	58	62	57	52	55	51	47	48	45	42	39				
4	77	66	57	51	72	62	55	49	55	49	45	49	44	40	43	39	36	33				
5	70	58	50	44	66	55	48	42	49	43	38	43	39	35	38	34	31	28				
6	65	52	44	38	61	49	42	36	44	38	33	39	34	30	35	30	27	25				
7	60	47	39	33	56	45	37	32	40	34	29	35	30	27	31	27	24	22				
8	55	43	35	29	52	40	33	28	36	30	26	32	27	24	29	24	21	19				
9	52	39	31	26	48	37	30	25	33	27	23	30	25	21	26	22	19	17				
10	48	36	28	23	45	34	27	22	31	25	21	27	22	19	24	20	17	15				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	13611	13611	13611
5°	13408	14172	14997
10°	12985	15749	17967
15°	12354	17598	20481
20°	11622	19201	21962
25°	10826	20291	22702
30°	10125	21127	23064
35°	9660	21561	23455
40°	9339	21817	23760
45°	9355	21891	23770
50°	9505	21667	23096
55°	9934	21247	20971
60°	10130	19753	17031
65°	10262	17303	12508
70°	9810	13605	9720
75°	8808	10150	8197
80°	7476	8024	6564
85°	7262	6539	5446

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°

Vertical Angle: 45°

Luminance: 23770 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	86.5	1.7
10°-20°	287.3	5.7
20°-30°	477.3	9.5
30°-40°	602.1	12.0
40°-50°	643.7	12.8
50°-60°	568.1	11.3
60°-70°	364.6	7.3
70°-80°	161.7	3.2
80°-90°	42.6	0.9
90°-100°	51.1	1.0
100°-110°	292.9	5.8
110°-120°	393.4	7.8
120°-130°	319.3	6.4
130°-140°	254.4	5.1
140°-150°	200.3	4.0
150°-160°	146.4	2.9
160°-170°	90.9	1.8
170°-180°	31.0	0.6
0°-30°	851.1	17.0
0°-40°	1453.2	29.0
0°-60°	2665.1	53.2
0°-90°	3234.0	64.5
90°-120°	737.4	14.7
90°-150°	1511.3	30.1
90°-180°	1780.0	35.5
0°-180°	5013.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	843	843	843	843	843	
5°	827	852	874	904	925	78
15°	739	852	1053	1179	1225	207
25°	608	824	1139	1246	1274	280
35°	490	753	1094	1165	1190	308
45°	410	644	959	1018	1041	317
55°	353	506	755	758	745	313
65°	269	340	453	368	327	263
75°	141	156	163	139	131	151
85°	39	34	35	31	29	41
90°	14	16	16	18	14	10
95°	38	44	26	24	26	34
105°	77	110	377	476	314	82
115°	123	145	326	667	778	122
125°	168	190	308	529	624	149
135°	201	223	304	434	499	155
145°	238	258	306	378	419	149
155°	279	289	312	343	359	128
165°	310	314	320	328	334	87
175°	326	328	326	324	322	31
180°	326	326	326	326	326	



TEST NUMBER: P644623

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	843.0	843.0	843.0	843.0	843.0
2.5°	836.7	849.0	849.3	854.1	860.3
5°	827.3	852.2	874.4	904.3	925.3
7.5°	807.7	852.2	923.0	992.4	1026.9
10°	792.0	853.4	960.6	1053.7	1095.9
12.5°	771.6	852.9	998.3	1110.3	1158.6
15°	739.1	852.2	1052.8	1179.3	1225.3
17.5°	701.5	848.7	1095.5	1222.3	1262.5
20°	676.4	845.1	1117.5	1238.0	1278.2
22.5°	648.1	836.8	1130.0	1245.7	1282.9
25°	607.7	824.4	1139.0	1245.6	1274.3
27.5°	568.1	806.6	1139.4	1229.8	1254.3
30°	543.1	792.3	1133.2	1214.1	1237.1
32.5°	521.1	776.4	1120.6	1195.3	1219.8
35°	490.1	752.7	1093.9	1165.1	1190.0
37.5°	463.5	725.7	1060.2	1129.5	1158.6
40°	443.1	703.8	1035.1	1104.3	1127.3
42.5°	427.4	680.4	1005.3	1072.8	1092.8
45°	409.7	643.6	958.7	1018.0	1041.0
47.5°	390.9	605.6	905.0	961.0	975.9
50°	378.4	577.7	862.6	913.7	919.5
52.5°	370.5	548.4	821.8	854.0	855.2
55°	352.9	506.2	754.8	758.4	745.0
57.5°	329.4	457.0	669.7	650.5	618.3
60°	313.7	422.9	611.7	573.4	527.4
62.5°	298.0	390.4	550.5	488.5	434.8
65°	268.6	339.5	452.9	367.7	327.4
67.5°	234.5	283.5	355.6	275.0	248.2
70°	207.8	246.1	288.2	225.0	205.9
72.5°	182.7	208.8	233.3	186.0	176.1
75°	141.2	156.5	162.7	139.0	131.4
77.5°	103.9	104.7	112.9	97.9	94.1
80°	80.4	76.5	86.3	74.4	70.6
82.5°	61.6	56.2	62.7	54.1	51.8
85°	39.2	33.5	35.3	31.3	29.4
87.5°	23.1	18.9	18.9	17.6	15.3
90°	13.7	15.7	15.9	17.8	14.0
92.5°	23.4	20.8	19.2	21.3	19.1
95°	38.0	44.4	26.2	24.4	26.5
97.5°	48.3	71.9	128.1	39.5	32.7
100°	56.6	85.0	248.0	75.1	49.2
102.5°	64.9	96.4	333.4	190.4	103.4
105°	77.3	109.5	377.3	476.3	313.9
107.5°	91.7	113.9	360.4	692.4	646.7
110°	100.0	122.1	350.6	727.4	779.7



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	109.8	132.0	340.7	706.9	796.1
115°	122.7	144.8	326.0	667.2	777.6
117.5°	137.4	159.6	322.3	624.2	737.8
120°	147.4	169.4	315.7	591.5	709.9
122.5°	155.6	177.7	305.9	563.4	672.2
125°	168.0	190.0	307.5	529.4	623.8
127.5°	177.9	201.9	306.0	489.6	583.1
130°	184.5	208.6	307.6	461.7	551.9
132.5°	189.6	213.6	304.5	449.8	524.0
135°	201.1	223.1	303.7	434.4	498.6
137.5°	211.3	235.0	303.7	417.4	472.3
140°	219.5	241.6	303.7	407.4	457.6
142.5°	227.8	248.2	305.3	395.8	442.8
145°	238.0	258.1	305.7	378.4	418.6
147.5°	250.3	268.0	308.2	365.9	396.8
150°	258.5	274.6	309.8	357.6	383.7
152.5°	266.7	281.2	309.8	350.9	372.2
155°	279.0	289.1	311.9	343.0	359.1
157.5°	288.9	298.5	314.3	338.0	349.6
160°	295.5	303.5	316.0	334.7	344.7
162.5°	300.4	308.4	317.6	333.0	339.8
165°	309.8	313.8	320.1	328.4	334.4
167.5°	315.2	318.8	322.1	326.3	329.9
170°	320.1	322.1	322.1	326.3	328.3
172.5°	321.7	325.3	323.8	324.6	326.7
175°	326.2	328.2	326.2	324.1	322.1
177.5°	326.2	327.8	326.2	326.2	324.6
180°	326.2	326.2	326.2	326.2	326.2

(END OF REPORT)