

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: P644593

Luminaire Tested: OMN4DIP-SR4F0-100D25U935-CLBOOB-1DUDD-WW

Issue Date: 2/16/2023



Test Information

Test Method: LM-79-2019
Report Number: P644593
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-SR4F0-100D25U935-CLBOOB-1DUDD-WW
Description: NEO-RAY CIRQUE SUSPENDED LED LUMINAIRE
DOWNLIGHT - BATWING LENS - 1000 LUMENS PER FOOT
UPLIGHT - BATWING OPTIC - 250 LUMENS PER FOOT
Light Source: 3500K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

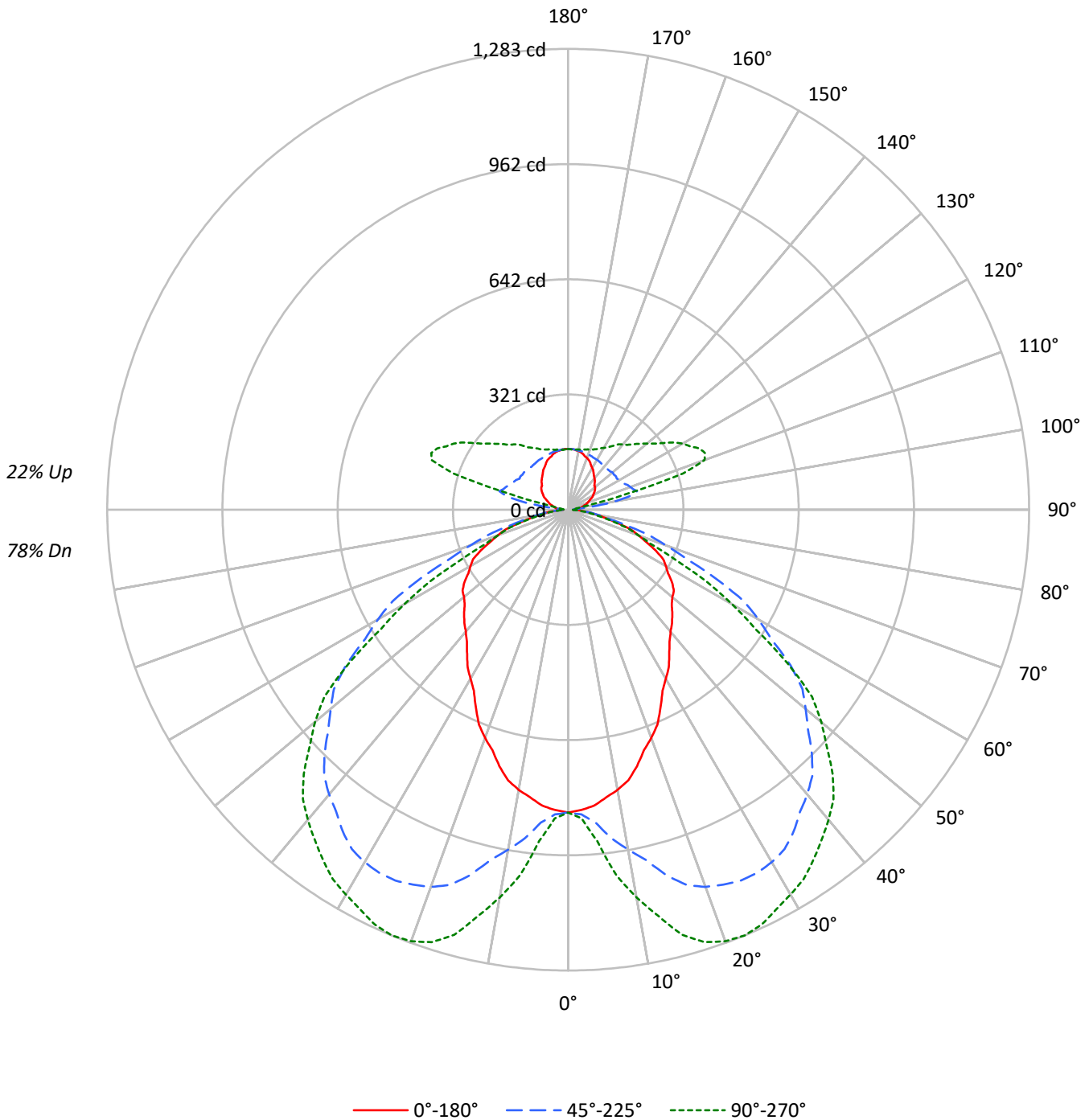
Lumens per Lamp: N/A
Luminaire Lumens: 4168.9 lumens
Efficiency: N/A
Efficacy: 109.1 lumens/watt
Spacing Criteria (0/90/45): 0.99 / 1.87 / 1.75
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: Semi-Direct

Input Watts (W): 38.2
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	0
RCR																		
0	114	114	114	114	108	108	108	108	99	99	99	90	90	90	81	81	81	78
1	104	100	96	92	99	95	92	89	87	84	82	79	77	75	72	71	69	66
2	95	87	81	75	90	83	78	73	76	72	68	70	66	63	64	61	58	55
3	86	76	69	63	82	73	66	61	67	61	57	61	57	53	56	53	49	46
4	79	68	59	53	75	65	57	51	60	53	48	55	49	45	50	46	42	39
5	72	60	52	45	69	58	50	44	53	47	41	49	43	39	45	40	37	34
6	67	54	45	39	63	52	44	38	48	41	36	44	38	34	41	36	32	30
7	62	49	40	34	59	47	39	33	43	37	32	40	34	30	37	32	28	26
8	57	44	36	30	54	43	35	30	39	33	28	36	31	27	34	29	25	23
9	53	40	32	27	51	39	31	26	36	30	25	33	28	24	31	26	23	21
10	50	37	29	24	47	36	28	24	33	27	23	31	25	21	29	24	20	18

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	2.1
10°-20°	287.3	6.9
20°-30°	477.3	11.4
30°-40°	602.1	14.4
40°-50°	643.7	15.4
50°-60°	568.1	13.6
60°-70°	364.6	8.7
70°-80°	161.7	3.9
80°-90°	42.3	1.0
90°-100°	31.8	0.8
100°-110°	155.2	3.7
110°-120°	206.4	5.0
120°-130°	167.1	4.0
130°-140°	132.0	3.2
140°-150°	103.8	2.5
150°-160°	75.9	1.8
160°-170°	47.1	1.1
170°-180°	16.1	0.4
0°-30°	851.1	20.4
0°-40°	1453.2	34.9
0°-60°	2665.1	63.9
0°-90°	3233.7	77.6
90°-120°	393.4	9.4
90°-150°	796.2	19.1
90°-180°	935.0	22.4
0°-180°	4168.9	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	15	14	15	11	10
95°	30	30	18	16	16	26
105°	47	62	198	248	163	50
115°	68	79	172	347	403	68
125°	90	101	162	275	323	80
135°	104	116	157	225	258	81
145°	123	134	158	196	217	77
155°	145	150	162	178	186	66
165°	160	163	166	170	173	45
175°	169	170	169	168	167	16
180°	169	169	169	169	169	



TEST NUMBER: P644593

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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	18.7	18.5	17.1	14.8
90°	13.7	14.8	13.9	14.9	11.0
92.5°	21.0	17.4	14.9	15.1	12.1
95°	30.1	29.7	18.3	15.5	15.6
97.5°	34.3	43.7	70.0	22.3	17.9
100°	37.8	49.8	131.3	40.8	26.4
102.5°	41.4	55.7	175.6	99.8	53.8
105°	46.7	62.4	198.3	247.7	162.7
107.5°	53.9	63.8	189.6	359.7	335.1
110°	57.5	68.0	184.5	377.9	404.0



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	62.6	73.1	179.4	367.2	412.5
115°	68.3	78.8	171.7	346.6	402.9
117.5°	75.8	86.5	169.8	324.4	382.3
120°	80.1	91.6	166.4	307.4	367.9
122.5°	84.4	95.1	160.6	292.8	348.3
125°	89.9	101.3	162.2	275.2	323.2
127.5°	94.1	107.3	160.4	254.4	302.2
130°	97.5	110.0	161.3	239.2	286.0
132.5°	98.6	111.1	158.1	233.1	271.5
135°	104.2	115.6	157.4	225.1	258.4
137.5°	109.5	121.8	157.4	216.3	244.7
140°	113.8	125.2	157.4	211.1	237.1
142.5°	118.0	128.6	158.2	205.1	229.4
145°	123.3	133.7	158.4	196.1	216.9
147.5°	129.7	138.9	159.7	189.6	205.6
150°	134.0	142.3	160.5	185.3	198.8
152.5°	138.2	145.7	160.5	181.8	192.9
155°	144.6	149.8	161.6	177.7	186.1
157.5°	149.7	154.7	162.9	175.1	181.2
160°	153.1	157.3	163.7	173.4	178.6
162.5°	155.7	159.8	164.6	172.5	176.1
165°	160.5	162.6	165.9	170.2	173.3
167.5°	163.3	165.2	166.9	169.1	171.0
170°	165.9	166.9	166.9	169.1	170.1
172.5°	166.7	168.6	167.8	168.2	169.3
175°	169.0	170.1	169.0	168.0	166.9
177.5°	169.0	169.9	169.0	169.0	168.2
180°	169.0	169.0	169.0	169.0	169.0

(END OF REPORT)