

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: P645205

Luminaire Tested: OMN4DP-SR4F0-100D835-CLB-1DUDD-WW

Issue Date: 2/16/2023



Test Information

Test Method: LM-79-2019
Report Number: P645205
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2206-689-20)
Test Lab: INNOVATION CENTER
Issue Date: 2/16/2023
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: OMN4DP-SR4F0-100D835-CLB-1DUDD-WW
Description: NEO-RAY CIRQUE SUSPENDED LED LUMINAIRE
DOWNLIGHT - BATWING LENS - 1000 LUMENS PER FOOT
DIRECT ONLY
Light Source: 3500K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

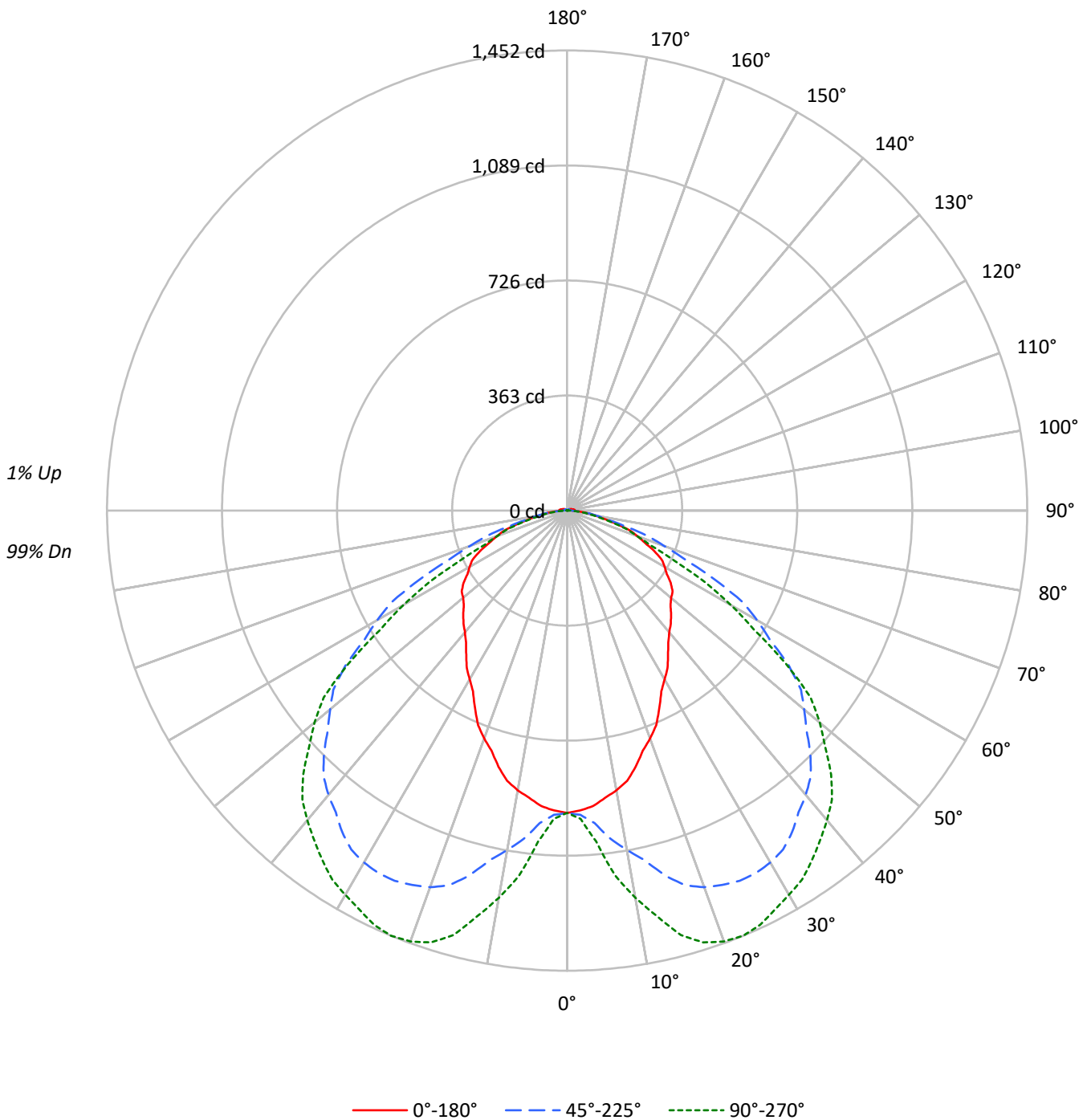
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3689.8 lumens
Efficiency: N/A
Efficacy: 123.4 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: Direct

Input Watts (W): 29.9
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	119	119	119	119	116	116	116	116	111	111	111	106	106	106	101	101	101	99																				
1	109	104	100	97	106	102	98	95	98	95	92	94	91	89	90	88	86	84																				
2	99	91	85	79	97	89	83	78	86	81	76	82	78	74	79	76	73	70																				
3	91	80	72	66	88	79	71	65	75	69	64	73	67	63	70	65	62	59																				
4	83	71	62	56	80	70	61	55	67	60	54	65	58	53	62	57	53	50																				
5	76	63	54	48	74	62	54	47	60	52	47	58	51	46	56	50	46	43																				
6	70	57	48	41	68	56	47	41	54	46	41	52	45	40	50	45	40	38																				
7	65	51	42	36	63	50	42	36	49	41	36	47	41	36	46	40	35	33																				
8	60	47	38	32	59	46	38	32	44	37	32	43	36	32	42	36	31	29																				
9	56	43	34	29	55	42	34	29	41	34	29	40	33	28	39	33	28	26																				
10	53	39	31	26	51	39	31	26	38	31	26	37	30	26	36	30	25	24																				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	15403	15403	15403
5°	15175	16037	16973
10°	14695	17823	20333
15°	13981	19915	23178
20°	13151	21728	24854
25°	12253	22963	25691
30°	11458	23909	26099
35°	10933	24402	26544
40°	10568	24689	26888
45°	10588	24772	26900
50°	10756	24521	26136
55°	11240	24045	23733
60°	11464	22352	19272
65°	11610	19580	14155
70°	11103	15394	10999
75°	9963	11485	9270
80°	8461	9075	7429
85°	8225	7392	6169

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 26900 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	97.8	2.7
10°-20°	325.1	8.8
20°-30°	540.2	14.6
30°-40°	681.4	18.5
40°-50°	728.4	19.7
50°-60°	642.9	17.4
60°-70°	412.6	11.2
70°-80°	183.0	5.0
80°-90°	47.4	1.3
90°-100°	12.5	0.3
100°-110°	8.0	0.2
110°-120°	6.1	0.2
120°-130°	3.9	0.1
130°-140°	0.4	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	963.2	26.1
0°-40°	1644.6	44.6
0°-60°	3016.0	81.7
0°-90°	3659.0	99.2
90°-120°	26.5	0.7
90°-150°	30.8	0.8
90°-180°	31.0	0.8
0°-180°	3689.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	954	954	954	954	954	
5°	936	964	990	1023	1047	88
15°	836	964	1191	1335	1387	234
25°	688	933	1289	1410	1442	317
35°	555	852	1238	1318	1347	348
45°	464	728	1085	1152	1178	358
55°	399	573	854	858	843	354
65°	304	384	512	416	370	297
75°	160	177	184	157	149	171
85°	44	38	40	35	33	47
90°	16	16	13	13	9	11
95°	24	16	11	7	4	18
105°	16	13	7	2	0	17
115°	11	9	7	2	0	11
125°	7	7	7	2	0	6
135°	0	0	0	0	0	1
145°	0	0	0	0	0	0
155°	0	0	0	0	0	0
165°	0	0	0	0	0	0
175°	0	0	0	0	0	0
180°	0	0	0	0	0	0



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	954.0	954.0	954.0	954.0	954.0
2.5°	946.9	960.8	961.1	966.6	973.5
5°	936.3	964.5	989.5	1023.3	1047.2
7.5°	914.1	964.4	1044.5	1123.1	1162.1
10°	896.3	965.7	1087.1	1192.5	1240.2
12.5°	873.2	965.2	1129.7	1256.5	1311.2
15°	836.4	964.4	1191.4	1334.6	1386.6
17.5°	793.8	960.4	1239.8	1383.2	1428.8
20°	765.4	956.3	1264.6	1401.0	1446.5
22.5°	733.5	946.9	1278.8	1409.8	1451.9
25°	687.8	932.9	1289.0	1409.6	1442.1
27.5°	643.0	912.8	1289.5	1391.7	1419.5
30°	614.6	896.6	1282.4	1373.9	1399.9
32.5°	589.7	878.7	1268.2	1352.6	1380.4
35°	554.7	851.8	1238.0	1318.5	1346.7
37.5°	524.5	821.2	1199.8	1278.2	1311.2
40°	501.4	796.4	1171.4	1249.7	1275.7
42.5°	483.7	770.0	1137.7	1214.1	1236.6
45°	463.7	728.3	1084.9	1152.0	1178.1
47.5°	442.4	685.4	1024.1	1087.5	1104.4
50°	428.2	653.8	976.2	1034.0	1040.5
52.5°	419.3	620.6	930.0	966.5	967.8
55°	399.3	572.9	854.2	858.3	843.1
57.5°	372.7	517.2	757.9	736.2	699.7
60°	355.0	478.6	692.2	648.9	596.8
62.5°	337.2	441.8	623.0	552.8	492.1
65°	303.9	384.2	512.5	416.1	370.5
67.5°	265.3	320.9	402.5	311.2	280.9
70°	235.2	278.6	326.1	254.6	233.0
72.5°	206.8	236.3	264.0	210.5	199.2
75°	159.7	177.1	184.1	157.3	148.6
77.5°	117.6	118.5	127.8	110.8	106.5
80°	91.0	86.6	97.6	84.2	79.9
82.5°	69.7	63.6	71.0	61.2	58.6
85°	44.4	37.9	39.9	35.4	33.3
87.5°	26.2	21.0	20.4	18.6	16.0
90°	15.5	15.5	13.3	13.2	8.9
92.5°	20.9	15.6	11.5	9.7	5.3
95°	24.4	15.7	11.1	6.6	4.4
97.5°	21.7	15.2	8.4	4.4	2.2
100°	20.0	13.5	6.7	4.4	2.2
102.5°	18.2	13.4	6.7	2.6	0.4
105°	15.5	13.4	6.7	2.2	0.0
107.5°	15.1	11.2	6.7	2.2	0.0
110°	13.3	11.1	6.7	2.2	0.0



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	13.3	11.1	6.7	2.2	0.0
115°	11.1	8.9	6.7	2.2	0.0
117.5°	10.6	8.9	6.7	2.2	0.0
120°	8.9	8.9	6.7	2.2	0.0
122.5°	8.9	7.1	4.9	2.2	0.0
125°	6.7	6.7	6.7	2.2	0.0
127.5°	4.4	6.2	4.4	1.7	0.0
130°	4.4	4.4	4.4	0.0	0.0
132.5°	0.9	0.9	0.9	0.0	0.0
135°	0.0	0.0	0.0	0.0	0.0
137.5°	0.0	0.0	0.0	0.0	0.0
140°	0.0	0.0	0.0	0.0	0.0
142.5°	0.0	0.0	0.0	0.0	0.0
145°	0.0	0.0	0.0	0.0	0.0
147.5°	0.0	0.0	0.0	0.0	0.0
150°	0.0	0.0	0.0	0.0	0.0
152.5°	0.0	0.0	0.0	0.0	0.0
155°	0.0	0.0	0.0	0.0	0.0
157.5°	0.0	0.0	0.0	0.0	0.0
160°	0.0	0.0	0.0	0.0	0.0
162.5°	0.0	0.0	0.0	0.0	0.0
165°	0.0	0.0	0.0	0.0	0.0
167.5°	0.0	0.0	0.0	0.0	0.0
170°	0.0	0.0	0.0	0.0	0.0
172.5°	0.0	0.0	0.0	0.0	0.0
175°	0.0	0.0	0.0	0.0	0.0
177.5°	0.0	0.0	0.0	0.0	0.0
180°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)