

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: P645214

Luminaire Tested: OMN4DP-SR4F0-100D935-CLB-1DUDD-WW

Issue Date: 2/16/2023



**Test Information**

Test Method: LM-79-2019  
Report Number: P645214  
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-SR4F0-100D935-CLB-1DUDD-WW  
Description: NEO-RAY CIRQUE SUSPENDED LED LUMINAIRE  
DOWNLIGHT - BATWING LENS - 1000 LUMENS PER FOOT  
DIRECT ONLY  
Light Source: 3500K CCT, 90 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

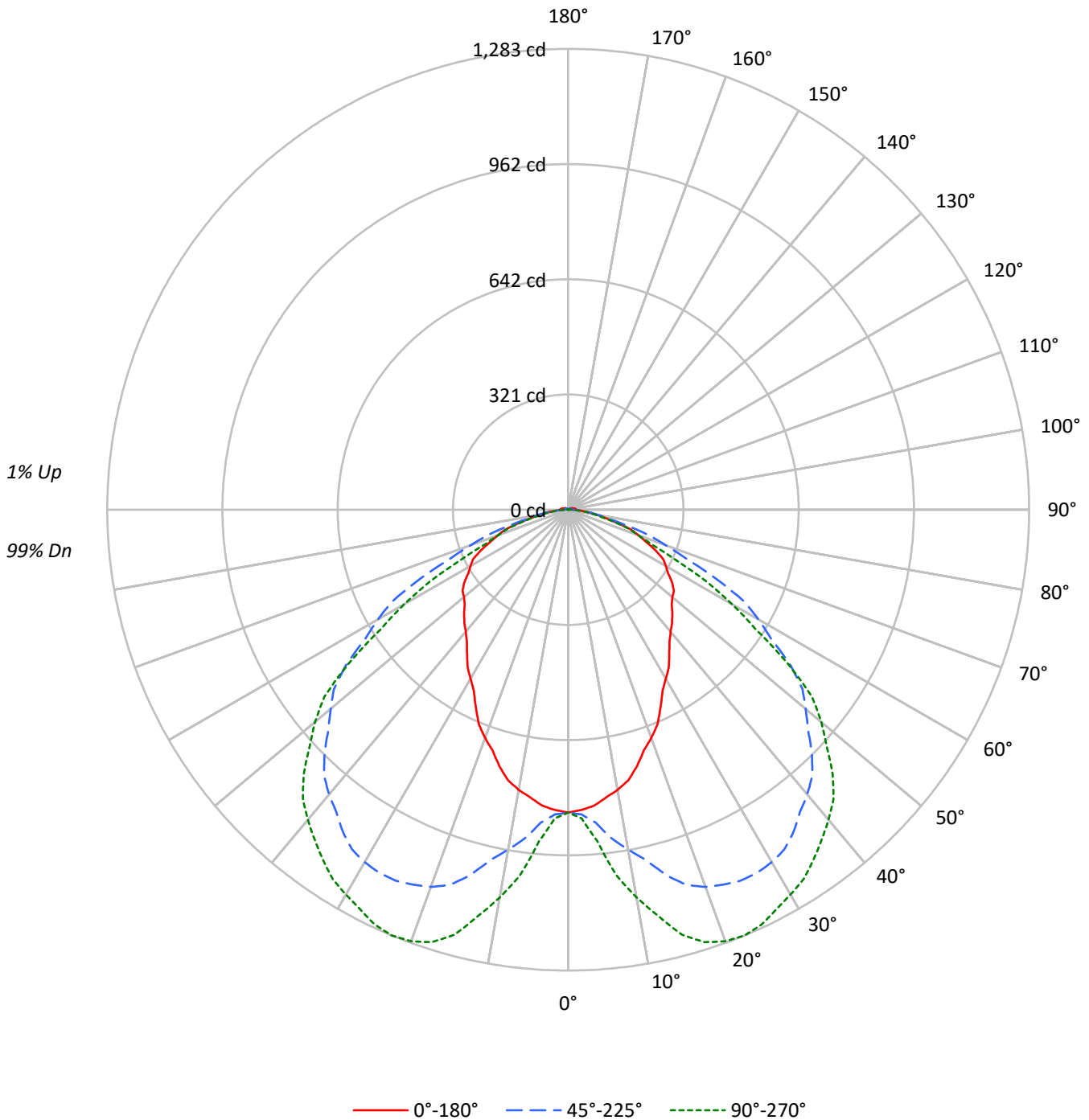
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3260.5 lumens  
Efficiency: N/A  
Efficacy: 109.0 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				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	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	51
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°	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	2.7
10°-20°	287.3	8.8
20°-30°	477.3	14.6
30°-40°	602.1	18.5
40°-50°	643.7	19.7
50°-60°	568.1	17.4
60°-70°	364.6	11.2
70°-80°	161.7	5.0
80°-90°	41.9	1.3
90°-100°	11.0	0.3
100°-110°	7.1	0.2
110°-120°	5.3	0.2
120°-130°	3.4	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°	851.1	26.1
0°-40°	1453.2	44.6
0°-60°	2665.1	81.7
0°-90°	3233.3	99.2
90°-120°	23.4	0.7
90°-150°	27.2	0.8
90°-180°	27.0	0.8
0°-180°	3260.5	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	14	12	12	8	9
95°	22	14	10	6	4	16
105°	14	12	6	2	0	15
115°	10	8	6	2	0	10
125°	6	6	6	2	0	5
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°	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	18.5	18.0	16.4	14.1
90°	13.7	13.7	11.8	11.7	7.8
92.5°	18.4	13.8	10.2	8.5	4.7
95°	21.6	13.9	9.8	5.8	3.9
97.5°	19.2	13.5	7.4	3.9	2.0
100°	17.6	11.9	5.9	3.9	2.0
102.5°	16.1	11.9	5.9	2.3	0.4
105°	13.7	11.8	5.9	1.9	0.0
107.5°	13.3	9.9	5.9	1.9	0.0
110°	11.8	9.8	5.9	1.9	0.0



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	11.8	9.8	5.9	1.9	0.0
115°	9.8	7.9	5.9	1.9	0.0
117.5°	9.4	7.9	5.9	1.9	0.0
120°	7.8	7.8	5.9	1.9	0.0
122.5°	7.8	6.3	4.3	1.9	0.0
125°	5.9	5.9	5.9	1.9	0.0
127.5°	3.9	5.5	3.9	1.5	0.0
130°	3.9	3.9	3.9	0.0	0.0
132.5°	0.8	0.8	0.8	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)