

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: P645269

Luminaire Tested: OMN4DP-SR4F0-75D935-FLL-1DUDD-WW

Issue Date: 2/16/2023



**Test Information**

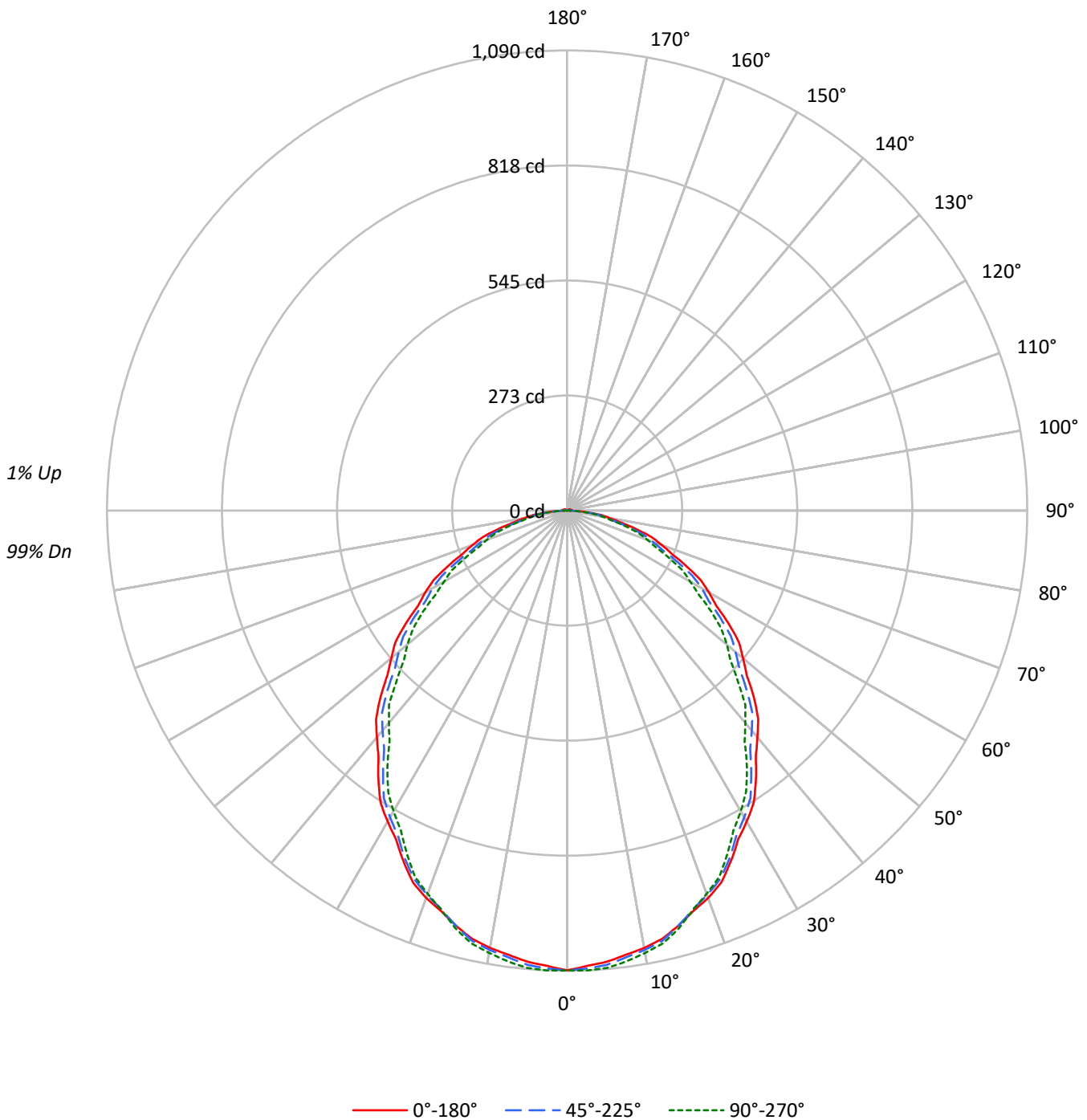
Test Method: LM-79-2019  
Report Number: P645269  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2206-689-19)  
Test Lab: INNOVATION CENTER  
Issue Date: 2/16/2023  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: OMN4DP-SR4F0-75D935-FLL-1DUDD-WW  
Description: NEO-RAY CIRQUE SUSPENDED LED LUMINAIRE  
DOWNLIGHT - FLAT FROSTED LENS - 750 LUMENS PER FOOT  
DIRECT ONLY  
Light Source: 3500K CCT, 90 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2656.5 lumens  
Efficiency: N/A  
Efficacy: 121.9 lumens/watt  
Spacing Criteria (0/90/45): 1.17 / 1.13 / 1.26  
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 21.8  
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	102	102	102	99																				
1	109	104	100	96	106	102	98	95	98	95	92	94	91	89	90	88	86	84																				
2	99	91	85	79	97	90	83	78	86	81	76	83	78	75	80	76	73	71																				
3	91	81	73	67	89	79	72	66	76	70	65	73	68	63	71	66	62	60																				
4	84	72	63	57	81	71	63	56	68	61	56	66	60	55	63	58	54	52																				
5	77	65	56	49	75	63	55	49	61	54	48	59	53	48	57	52	47	45																				
6	71	58	50	43	69	57	49	43	55	48	43	54	47	42	52	46	42	40																				
7	66	53	44	38	65	52	44	38	51	43	38	49	43	38	48	42	37	35																				
8	62	49	40	34	60	48	40	34	46	39	34	45	39	34	44	38	34	32																				
9	58	45	37	31	56	44	36	31	43	36	31	42	35	31	41	35	31	29																				
10	54	41	34	28	53	41	33	28	40	33	28	39	32	28	38	32	28	26																				

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	17584	17584	17584
5°	17387	17507	17627
10°	17247	17321	17443
15°	17016	17016	17115
20°	16778	16651	16600
25°	16340	16208	15996
30°	15856	15636	15333
35°	15362	14982	14633
40°	14773	14334	13835
45°	14278	13737	13061
50°	13659	13064	12393
55°	13140	12470	11721
60°	12536	11867	10863
65°	11889	11037	10189
70°	11264	10211	9512
75°	10536	9339	8871
80°	9642	8545	8126
85°	9059	7966	7410

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 14278 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	102.4	3.9
10°-20°	287.5	10.8
20°-30°	418.0	15.7
30°-40°	475.5	17.9
40°-50°	463.6	17.5
50°-60°	395.7	14.9
60°-70°	287.6	10.8
70°-80°	162.6	6.1
80°-90°	50.1	1.9
90°-100°	6.3	0.2
100°-110°	3.5	0.1
110°-120°	2.2	0.1
120°-130°	1.3	0.0
130°-140°	0.1	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°	808.0	30.4
0°-40°	1283.5	48.3
0°-60°	2142.8	80.7
0°-90°	2643.2	99.5
90°-120°	12.0	0.5
90°-150°	13.4	0.5
90°-180°	13.0	0.5
0°-180°	2656.5	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1089	1089	1089	1089	1089	
5°	1073	1089	1080	1079	1088	102
15°	1018	1031	1018	1017	1024	287
25°	917	926	910	894	898	422
35°	779	782	760	742	742	487
45°	625	622	602	581	572	481
55°	467	465	443	422	416	417
65°	311	308	289	271	267	309
75°	169	163	150	144	142	179
85°	49	43	43	42	40	52
90°	6	7	9	7	7	6
95°	12	6	4	4	3	9
105°	7	4	3	1	0	8
115°	4	3	2	0	0	5
125°	3	3	2	0	0	2
135°	0	0	0	0	0	0
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°	1089.1	1089.1	1089.1	1089.1	1089.1
2.5°	1079.6	1093.5	1085.5	1085.6	1090.3
5°	1072.8	1088.7	1080.2	1078.9	1087.6
7.5°	1061.5	1077.2	1067.2	1065.6	1076.9
10°	1052.0	1066.5	1056.5	1053.8	1063.9
12.5°	1039.0	1053.5	1043.5	1039.5	1049.7
15°	1018.0	1031.0	1018.0	1016.6	1023.9
17.5°	994.3	1005.6	990.4	985.5	991.0
20°	976.5	986.6	969.1	961.8	966.1
22.5°	954.0	964.1	945.4	934.5	940.0
25°	917.2	925.9	909.8	893.6	897.9
27.5°	877.8	884.5	868.3	851.7	853.2
30°	850.5	854.9	838.7	820.9	822.4
32.5°	822.1	825.3	807.9	788.9	789.2
35°	779.4	782.3	760.1	742.4	742.4
37.5°	734.1	735.8	712.1	692.8	690.8
40°	700.9	703.8	680.1	660.8	656.4
42.5°	670.0	670.6	649.3	629.9	624.4
45°	625.3	622.4	601.6	580.6	572.0
47.5°	577.0	577.0	553.3	532.4	524.2
50°	543.8	543.8	520.1	499.2	493.4
52.5°	513.0	511.8	489.3	468.3	460.2
55°	466.8	465.3	443.0	422.2	416.4
57.5°	417.9	417.9	397.1	374.7	368.4
60°	388.2	388.2	367.5	345.1	336.4
62.5°	356.2	355.1	334.3	314.3	309.1
65°	311.2	308.3	288.9	271.1	266.7
67.5°	268.2	265.3	244.8	230.5	227.6
70°	238.6	235.7	216.3	204.4	201.5
72.5°	210.1	206.1	189.1	179.5	176.6
75°	168.9	163.1	149.7	143.7	142.2
77.5°	129.8	119.9	114.4	110.2	108.8
80°	103.7	95.0	91.9	88.9	87.4
82.5°	81.2	72.5	71.7	69.9	68.5
85°	48.9	43.1	43.0	41.5	40.0
87.5°	21.3	18.1	18.4	18.1	18.1
90°	5.9	7.4	8.9	7.4	7.4
92.5°	10.7	7.5	6.5	6.2	5.0
95°	11.9	6.1	4.4	4.4	3.0
97.5°	10.4	6.0	4.1	2.6	1.5
100°	10.4	6.0	3.0	1.5	1.5
102.5°	9.2	4.8	3.0	1.5	0.3
105°	7.4	4.5	3.0	1.4	0.0
107.5°	7.1	4.5	3.0	1.4	0.0
110°	5.9	4.5	3.0	1.4	0.0



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CATALOG NUMBER: OMN4DP-SR4F0-75D935-FLL-1DUDD-WW

**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	5.9	4.5	3.0	1.4	0.0
115°	4.4	3.0	1.5	0.0	0.0
117.5°	4.4	3.0	1.5	0.0	0.0
120°	4.4	3.0	1.5	0.0	0.0
122.5°	3.3	3.0	1.5	0.0	0.0
125°	3.0	3.0	1.5	0.0	0.0
127.5°	1.5	2.6	1.5	0.0	0.0
130°	1.5	1.5	1.5	0.0	0.0
132.5°	0.3	0.3	0.3	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)