

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: P645244

Luminaire Tested: OMN4DP-SR4F0-50D840-FLL-1DUDD-WW

Issue Date: 2/16/2023



Test Information

Test Method: LM-79-2019
Report Number: P645244
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-SR4F0-50D840-FLL-1DUDD-WW
Description: NEO-RAY CIRQUE SUSPENDED LED LUMINAIRE
DOWNLIGHT - FLAT FROSTED LENS - 500 LUMENS PER FOOT
DIRECT ONLY
Light Source: 4000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

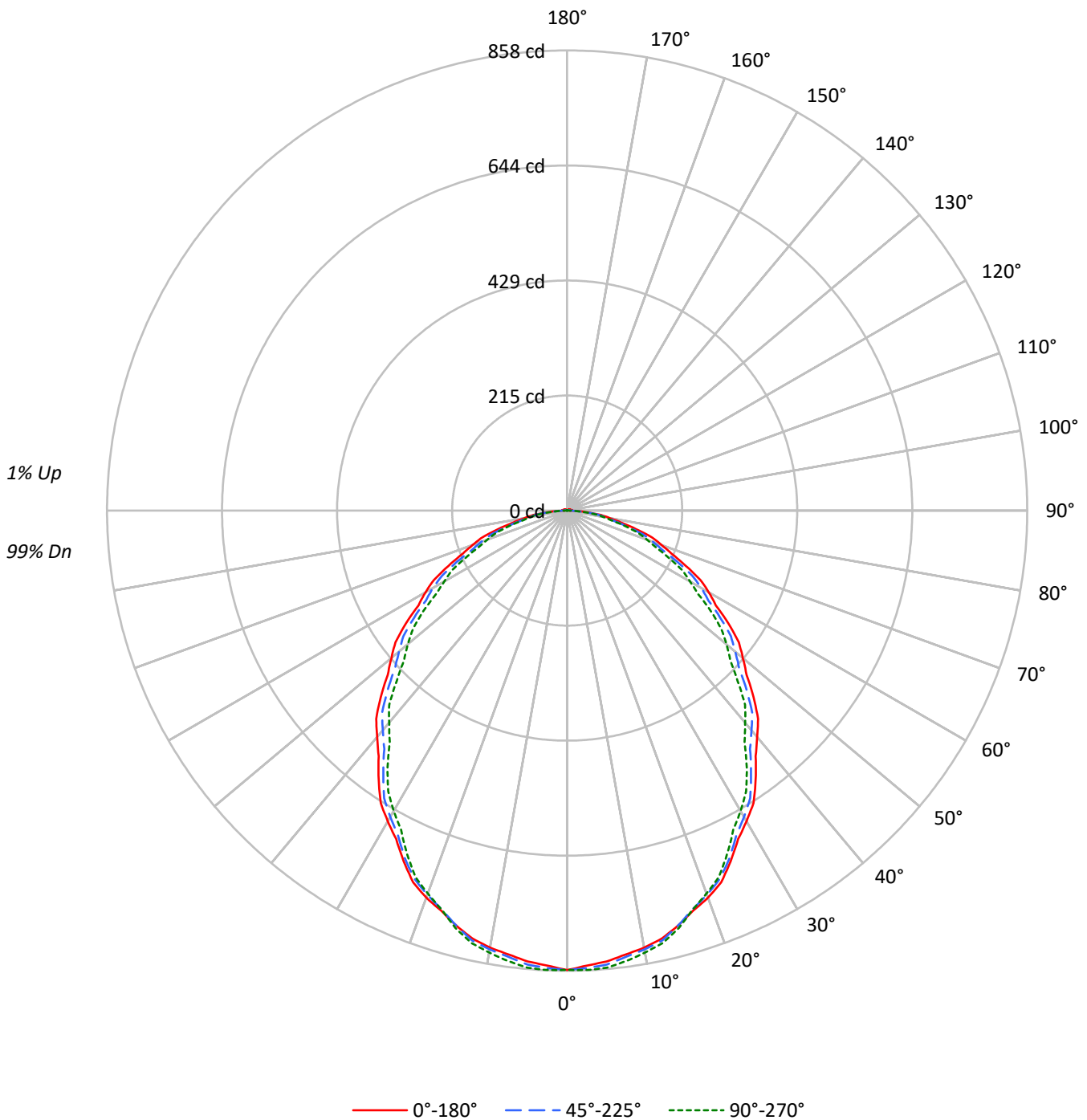
Lumens per Lamp: N/A
Luminaire Lumens: 2089.4 lumens
Efficiency: N/A
Efficacy: 146.1 lumens/watt
Spacing Criteria (0/90/45): 1.17 / 1.13 / 1.26
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 14.3
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	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°	13831	13831	13831
5°	13676	13770	13864
10°	13565	13623	13719
15°	13382	13382	13461
20°	13196	13096	13055
25°	12852	12748	12581
30°	12471	12297	12059
35°	12082	11785	11509
40°	11618	11274	10882
45°	11230	10805	10271
50°	10743	10276	9748
55°	10334	9810	9219
60°	9859	9332	8541
65°	9349	8684	8015
70°	8856	8030	7482
75°	8291	7342	6981
80°	7587	6722	6397
85°	7132	6262	5835

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 11230 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	80.6	3.9
10°-20°	226.1	10.8
20°-30°	328.8	15.7
30°-40°	374.0	17.9
40°-50°	364.6	17.5
50°-60°	311.3	14.9
60°-70°	226.2	10.8
70°-80°	127.9	6.1
80°-90°	39.4	1.9
90°-100°	5.0	0.2
100°-110°	2.7	0.1
110°-120°	1.7	0.1
120°-130°	1.0	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°	635.5	30.4
0°-40°	1009.5	48.3
0°-60°	1685.4	80.7
0°-90°	2078.9	99.5
90°-120°	9.4	0.5
90°-150°	10.5	0.5
90°-180°	11.0	0.5
0°-180°	2089.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	857	857	857	857	857	
5°	844	856	850	849	855	80
15°	801	811	801	800	805	226
25°	721	728	716	703	706	332
35°	613	615	598	584	584	383
45°	492	490	473	457	450	378
55°	367	366	348	332	328	328
65°	245	242	227	213	210	243
75°	133	128	118	113	112	141
85°	38	34	34	33	32	41
90°	5	6	7	6	6	5
95°	9	5	4	4	2	7
105°	6	4	2	1	0	7
115°	4	2	1	0	0	4
125°	2	2	1	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°	856.6	856.6	856.6	856.6	856.6
2.5°	849.1	860.1	853.8	853.9	857.5
5°	843.8	856.3	849.6	848.6	855.4
7.5°	834.9	847.2	839.3	838.1	847.0
10°	827.4	838.8	830.9	828.8	836.8
12.5°	817.2	828.6	820.7	817.6	825.6
15°	800.6	810.9	800.6	799.6	805.3
17.5°	782.0	790.9	779.0	775.1	779.4
20°	768.0	776.0	762.2	756.4	759.8
22.5°	750.3	758.3	743.5	735.0	739.3
25°	721.4	728.2	715.6	702.8	706.2
27.5°	690.4	695.6	682.9	669.9	671.0
30°	668.9	672.4	659.6	645.7	646.8
32.5°	646.6	649.1	635.4	620.5	620.7
35°	613.0	615.3	597.9	583.9	583.9
37.5°	577.3	578.7	560.1	544.9	543.3
40°	551.2	553.5	534.9	519.7	516.3
42.5°	527.0	527.5	510.7	495.4	491.1
45°	491.8	489.5	473.2	456.7	449.8
47.5°	453.8	453.8	435.2	418.7	412.3
50°	427.7	427.7	409.1	392.6	388.1
52.5°	403.5	402.6	384.8	368.4	362.0
55°	367.1	366.0	348.5	332.0	327.5
57.5°	328.6	328.6	312.3	294.7	289.7
60°	305.3	305.3	289.0	271.4	264.5
62.5°	280.2	279.3	262.9	247.2	243.1
65°	244.7	242.5	227.3	213.2	209.8
67.5°	210.9	208.7	192.5	181.3	179.0
70°	187.6	185.4	170.1	160.8	158.5
72.5°	165.3	162.1	148.7	141.2	138.9
75°	132.9	128.3	117.7	113.0	111.9
77.5°	102.1	94.3	90.0	86.7	85.5
80°	81.6	74.7	72.3	69.9	68.8
82.5°	63.9	57.0	56.4	55.0	53.8
85°	38.5	33.9	33.8	32.6	31.5
87.5°	16.8	14.3	14.5	14.2	14.2
90°	4.7	5.8	7.0	5.8	5.8
92.5°	8.4	5.9	5.1	4.9	4.0
95°	9.3	4.8	3.5	3.5	2.3
97.5°	8.2	4.7	3.3	2.1	1.2
100°	8.2	4.7	2.3	1.2	1.2
102.5°	7.2	3.8	2.3	1.1	0.2
105°	5.8	3.5	2.3	1.1	0.0
107.5°	5.6	3.5	2.3	1.1	0.0
110°	4.7	3.5	2.3	1.1	0.0



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	4.7	3.5	2.3	1.1	0.0
115°	3.5	2.4	1.2	0.0	0.0
117.5°	3.5	2.4	1.2	0.0	0.0
120°	3.5	2.4	1.2	0.0	0.0
122.5°	2.6	2.3	1.2	0.0	0.0
125°	2.3	2.3	1.2	0.0	0.0
127.5°	1.2	2.1	1.2	0.0	0.0
130°	1.2	1.2	1.2	0.0	0.0
132.5°	0.2	0.2	0.2	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)