

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: P644806

Luminaire Tested: OMN4DIP-SR4F0-125D50U935-WBMOOB-1DUDD-WW

Issue Date: 9/2/2020



Test Information

Test Method: LM-79-2019
Report Number: P644806
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2203-563-26, G2-2206-689-27)
Test Lab: INNOVATION CENTER
Issue Date: 9/2/2020
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: OMN4DIP-SR4F0-125D50U935-WBMOOB-1DUDD-WW
Description: NEO-RAY CIRQUE 4-INCH DIAMETER LINEAR LED LUMINAIRE
DOWNLIGHT - WHITE BAFFLE WITH MEDIUM OPTIC - 1250 LUMENS PER FOOT
UPLIGHT - BATWING OPTIC - 500 LUMENS PER FOOT
Light Source: 3500K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

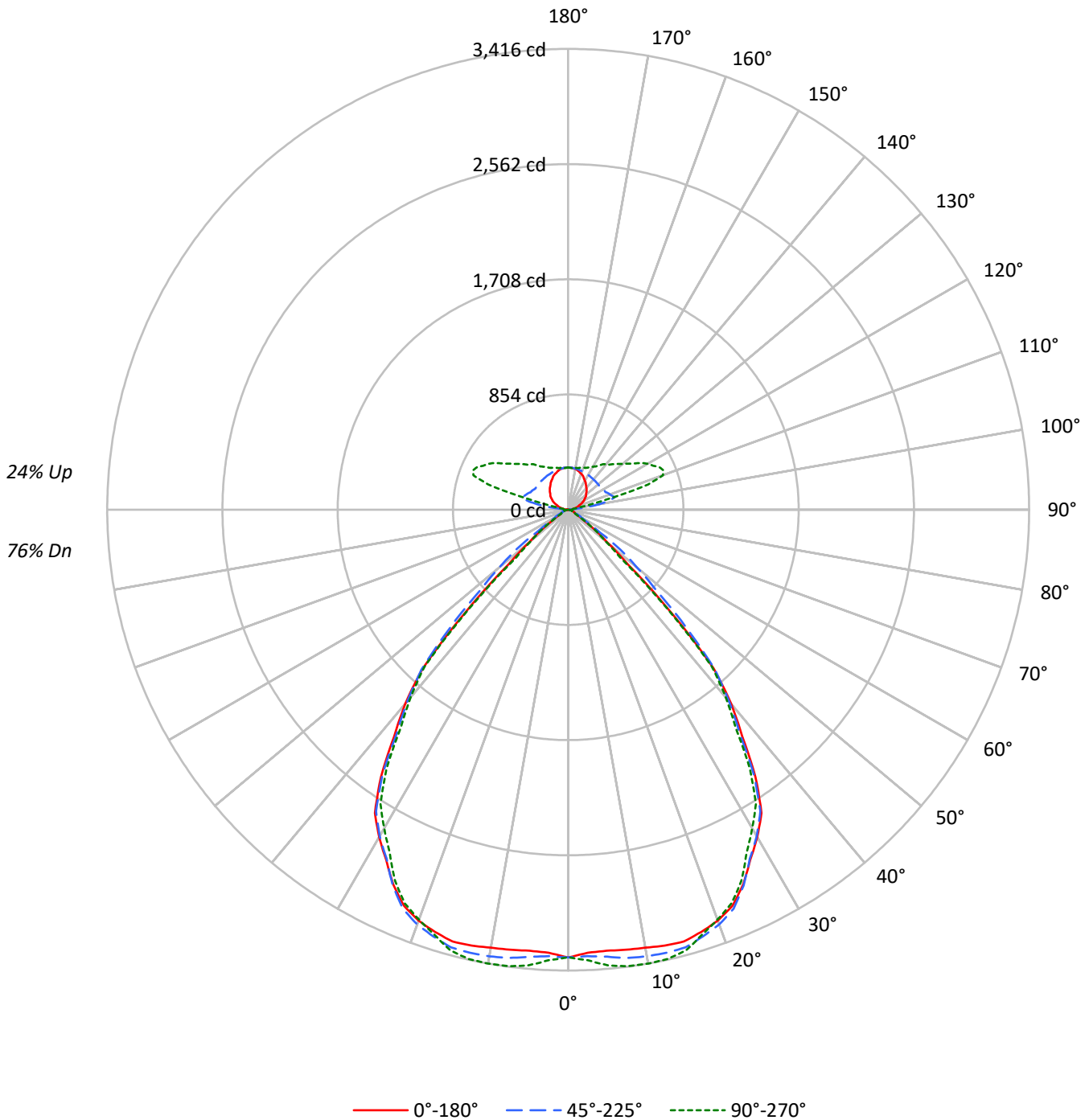
Lumens per Lamp: N/A
Luminaire Lumens: 7018.2 lumens
Efficiency: N/A
Efficacy: 109.5 lumens/watt
Spacing Criteria (0/90/45): 1.24 / 1.21 / 1.19
Luminous Opening: Rectangular (W 0.21' x L: 4' x H: 0')
CIE Type: Semi-Direct

Input Watts (W): 64.1
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	113	113	113	113	108	108	108	108	98	98	98	89	89	89	80	80	80	80	80	80	76	
1	106	103	100	97	101	98	96	93	90	88	86	82	81	79	75	74	73	75	74	73	69	
2	99	93	88	84	95	89	85	81	82	79	76	76	73	71	70	68	66	70	68	66	63	
3	93	85	79	74	88	81	76	72	75	71	68	70	66	64	64	62	60	64	62	60	57	
4	86	77	71	65	82	74	68	64	69	64	60	64	60	57	60	57	54	60	57	54	52	
5	81	71	64	58	77	68	62	57	63	58	54	59	55	52	55	52	49	55	52	49	47	
6	75	65	58	52	72	63	56	51	59	53	49	55	50	47	51	48	45	51	48	45	43	
7	70	59	52	47	67	58	51	46	54	49	45	51	46	43	48	44	41	48	44	41	39	
8	66	55	48	43	63	53	47	42	50	45	41	47	42	39	44	40	38	44	40	38	36	
9	62	51	44	39	59	49	43	39	47	41	37	44	39	36	41	37	35	41	37	35	33	
10	58	47	41	36	56	46	40	35	43	38	34	41	36	33	39	35	32	39	35	32	30	

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	42868	42868	42868
5°	42546	43129	43972
10°	43234	44087	44808
15°	44313	44915	45216
20°	44555	44968	44452
25°	43702	43809	43275
30°	41784	41672	40666
35°	38147	37832	37043
40°	31688	31226	30636
45°	19904	22644	18990
50°	7634	13409	7081
55°	3601	5628	3657
60°	1744	2842	1550
65°	1605	1681	1452
70°	1605	1605	1416
75°	1622	1622	1372
80°	1674	1488	1302
85°	1853	1482	1112

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°

Vertical Angle: 45°

Luminance: 22644 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	319.7	4.6
10°-20°	945.5	13.5
20°-30°	1404.6	20.0
30°-40°	1470.1	20.9
40°-50°	890.4	12.7
50°-60°	205.5	2.9
60°-70°	56.5	0.8
70°-80°	33.1	0.5
80°-90°	12.1	0.2
90°-100°	38.5	0.5
100°-110°	274.1	3.9
110°-120°	372.2	5.3
120°-130°	302.9	4.3
130°-140°	243.6	3.5
140°-150°	192.1	2.7
150°-160°	140.4	2.0
160°-170°	87.2	1.2
170°-180°	29.7	0.4
0°-30°	2669.7	38.0
0°-40°	4139.8	59.0
0°-60°	5235.7	74.6
0°-90°	5337.4	76.0
90°-120°	684.8	9.8
90°-150°	1423.4	20.3
90°-180°	1681.0	24.0
0°-180°	7018.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3319	3319	3319	3319	3319	
5°	3281	3357	3326	3340	3391	314
15°	3314	3414	3359	3332	3381	933
25°	3066	3157	3074	2995	3036	1404
35°	2419	2456	2399	2344	2349	1487
45°	1090	1239	1240	1196	1040	837
55°	160	182	250	172	162	166
65°	52	55	55	50	48	53
75°	32	32	32	30	28	34
85°	12	12	10	10	8	12
90°	0	2	4	6	6	1
95°	16	29	16	18	22	18
105°	61	94	356	455	301	64
115°	108	131	307	638	746	107
125°	156	177	289	506	598	138
135°	193	214	291	417	478	148
145°	228	248	293	363	402	143
155°	268	277	299	329	344	123
165°	297	301	307	315	321	83
175°	313	315	313	311	309	30
180°	313	313	313	313	313	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3318.8	3318.8	3318.8	3318.8	3318.8
2.5°	3286.8	3345.5	3312.8	3315.5	3342.8
5°	3281.3	3357.1	3326.3	3340.0	3391.3
7.5°	3290.3	3369.5	3351.3	3356.1	3412.3
10°	3296.3	3379.4	3361.3	3360.1	3416.3
12.5°	3310.3	3397.3	3363.3	3356.1	3410.3
15°	3313.8	3414.0	3358.8	3332.4	3381.3
17.5°	3281.3	3391.8	3317.3	3262.7	3301.8
20°	3241.4	3353.8	3271.4	3194.8	3233.9
22.5°	3179.4	3289.8	3201.4	3118.8	3159.9
25°	3066.4	3156.8	3073.9	2994.9	3036.4
27.5°	2923.5	2987.0	2916.0	2841.0	2864.5
30°	2801.5	2865.1	2794.0	2716.8	2726.5
32.5°	2665.6	2719.3	2650.1	2580.8	2588.6
35°	2419.2	2455.8	2399.2	2344.3	2349.2
37.5°	2119.3	2124.1	2085.8	2035.8	2036.8
40°	1879.3	1894.0	1851.9	1812.0	1816.9
42.5°	1593.4	1651.1	1609.9	1574.0	1574.9
45°	1089.6	1238.7	1239.6	1196.0	1039.6
47.5°	601.8	774.3	885.2	686.4	518.3
50°	379.9	489.8	667.3	401.2	352.4
52.5°	271.9	321.3	487.3	283.8	258.4
55°	159.9	181.9	249.9	172.2	162.4
57.5°	97.5	116.5	145.9	115.1	98.0
60°	67.5	84.6	110.0	77.1	60.0
62.5°	59.5	64.9	86.0	61.4	56.0
65°	52.5	54.9	55.0	49.9	47.5
67.5°	46.5	48.9	46.5	43.9	41.5
70°	42.5	44.9	42.5	39.9	37.5
72.5°	38.5	40.9	38.5	35.9	33.5
75°	32.5	32.5	32.5	29.9	27.5
77.5°	26.5	26.5	26.0	23.9	21.5
80°	22.5	22.5	20.0	19.9	17.5
82.5°	18.5	18.5	16.0	15.9	13.5
85°	12.5	12.5	10.0	9.9	7.5
87.5°	6.0	6.4	4.8	5.1	3.2
90°	0.0	1.9	3.9	5.9	5.9
92.5°	4.7	6.6	8.7	12.2	13.8
95°	15.7	29.2	15.7	17.8	21.6
97.5°	27.9	56.0	115.7	34.1	29.5
100°	37.4	70.1	232.2	68.4	45.3
102.5°	46.8	81.1	314.1	180.4	98.8
105°	61.0	93.7	356.2	455.0	301.1
107.5°	75.2	99.8	340.1	662.3	620.3
110°	84.6	107.7	330.6	695.9	747.8



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	94.1	117.2	321.2	676.2	763.6
115°	108.2	131.3	307.0	638.1	745.9
117.5°	122.8	145.5	303.5	596.9	707.7
120°	133.8	155.0	297.2	565.5	680.9
122.5°	141.7	164.4	289.3	538.5	644.7
125°	155.5	176.6	289.3	505.9	598.3
127.5°	166.9	188.4	289.7	468.1	559.3
130°	173.2	196.3	291.3	442.8	529.4
132.5°	181.1	204.1	291.3	431.4	502.6
135°	192.9	214.0	291.3	416.6	478.2
137.5°	202.7	225.4	291.3	400.3	453.0
140°	210.6	231.7	291.3	390.8	438.9
142.5°	218.4	238.1	292.8	379.7	424.7
145°	228.3	247.5	293.2	363.0	401.5
147.5°	240.1	257.0	295.6	351.0	380.6
150°	248.0	263.4	297.2	343.0	368.0
152.5°	255.8	269.7	297.2	336.6	357.0
155°	267.6	277.3	299.1	329.0	344.4
157.5°	277.1	286.3	301.5	324.2	335.3
160°	283.4	291.1	303.1	321.0	330.6
162.5°	288.1	295.8	304.6	319.4	325.9
165°	297.2	301.0	307.0	315.0	320.8
167.5°	302.3	305.7	309.0	313.0	316.5
170°	307.0	308.9	309.0	313.0	314.9
172.5°	308.6	312.0	310.5	311.4	313.3
175°	312.9	314.8	312.9	310.9	309.0
177.5°	312.9	314.4	312.9	312.9	311.3
180°	312.9	312.9	312.9	312.9	312.9

(END OF REPORT)