

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: P644795

Luminaire Tested: OMN4DIP-SR4F0-125D50U930-BBMOOB-1DUDD-WW

Issue Date: 9/2/2020



Test Information

Test Method: LM-79-2019
Report Number: P644795
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2203-563-26, G2-2206-689-23)
Test Lab: INNOVATION CENTER
Issue Date: 9/2/2020
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: OMN4DIP-SR4F0-125D50U930-BBMOOB-1DUDD-WW
Description: NEO-RAY CIRQUE 4-INCH DIAMETER LINEAR LED LUMINAIRE
DOWNLIGHT - BLACK BAFFLE WITH MEDIUM OPTIC - 1250 LUMENS PER FOOT
UPLIGHT - BATWING OPTIC - 500 LUMENS PER FOOT
Light Source: 3000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

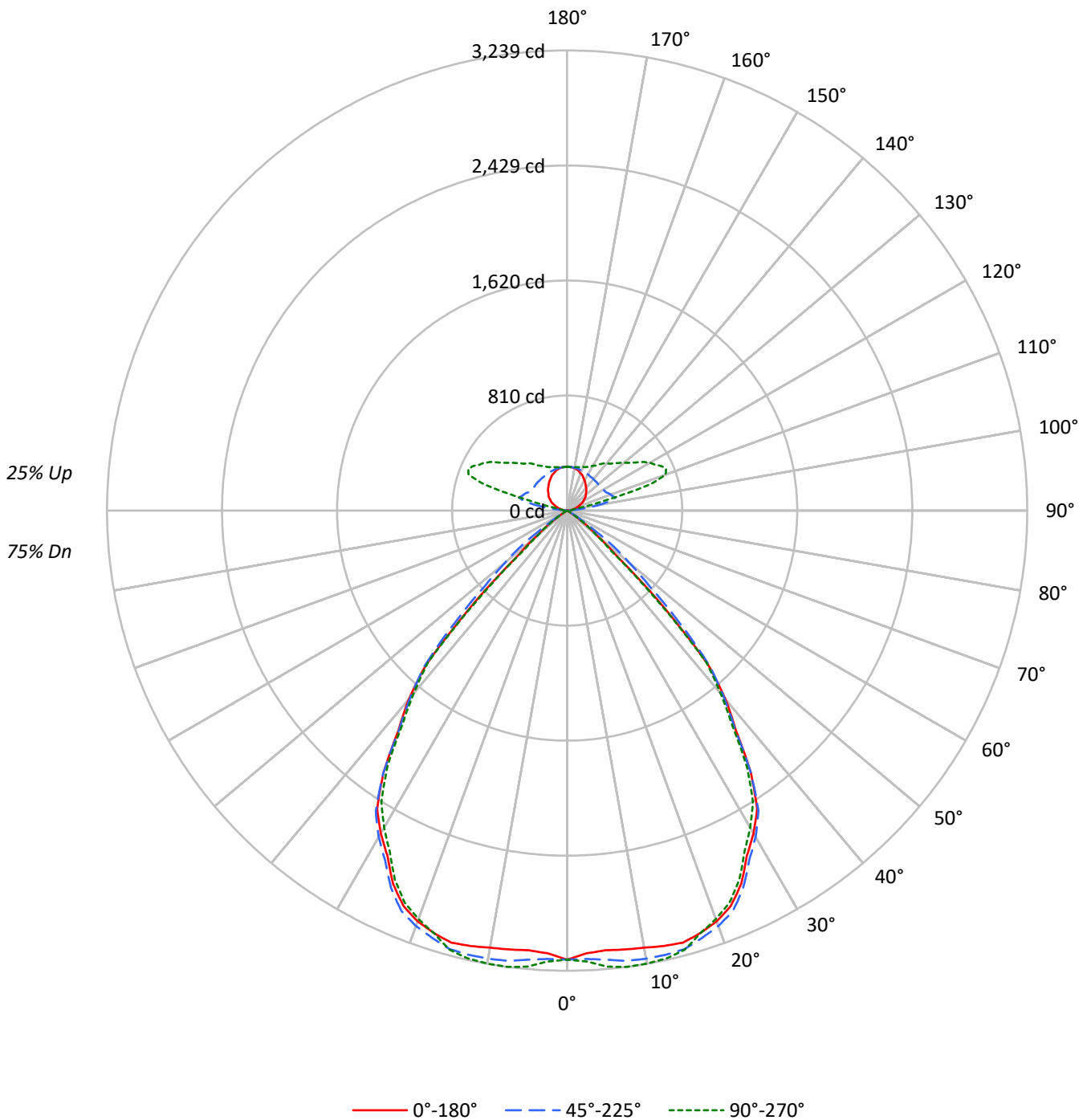
Lumens per Lamp: N/A
Luminaire Lumens: 6515.1 lumens
Efficiency: N/A
Efficacy: 101.6 lumens/watt
Spacing Criteria (0/90/45): 1.22 / 1.21 / 1.18
Luminous Opening: Rectangular (W 0.21' x L: 4' x H: 0')
CIE Type: Semi-Direct

Input Watts (W): 64.1
Input Voltage (V): 120
Input Current (A_{in}): 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	107	107	107	107	97	97	97	87	87	87	79	79	79	79	79	79	75	
1	106	103	100	97	101	98	96	93	89	88	86	81	80	79	74	73	72	74	73	72	69	
2	99	93	89	85	95	90	85	82	82	79	76	75	73	71	69	67	66	69	67	66	63	
3	93	85	79	75	88	82	77	72	75	71	68	70	66	64	64	62	60	64	62	60	57	
4	87	78	71	66	83	75	69	64	69	65	61	64	61	58	60	57	54	60	57	54	52	
5	81	71	64	59	77	69	62	58	64	59	55	59	55	52	55	52	49	55	52	49	47	
6	76	65	58	53	72	63	57	52	59	54	50	55	51	47	51	48	45	51	48	45	43	
7	71	60	53	48	68	58	52	47	54	49	45	51	47	43	48	44	41	48	44	41	39	
8	66	55	49	44	64	54	47	43	51	45	41	47	43	40	45	41	38	45	41	38	36	
9	62	51	45	40	60	50	44	39	47	42	38	44	40	36	42	38	35	42	38	35	33	
10	59	48	41	37	56	46	40	36	44	39	35	41	37	34	39	35	32	39	35	32	31	

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	40825	40825	40825
5°	40278	41141	41781
10°	40969	42005	42458
15°	42100	42727	42793
20°	42293	42767	42055
25°	41318	41776	40861
30°	39119	39560	38419
35°	35559	35559	34821
40°	29246	28956	28331
45°	17487	20552	16676
50°	5653	11454	5305
55°	2000	3833	2000
60°	127	1082	65
65°	76	76	0
70°	94	0	0
75°	0	0	0
80°	0	0	0
85°	371	0	0

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°

Vertical Angle: 45°

Luminance: 20552 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	304.1	4.7
10°-20°	899.8	13.8
20°-30°	1331.5	20.4
30°-40°	1376.3	21.1
40°-50°	800.8	12.3
50°-60°	135.6	2.1
60°-70°	5.4	0.1
70°-80°	0.8	0.0
80°-90°	1.4	0.0
90°-100°	38.0	0.6
100°-110°	270.7	4.2
110°-120°	367.5	5.6
120°-130°	299.1	4.6
130°-140°	240.5	3.7
140°-150°	189.6	2.9
150°-160°	138.7	2.1
160°-170°	86.1	1.3
170°-180°	29.4	0.5
0°-30°	2535.3	38.9
0°-40°	3911.6	60.0
0°-60°	4848.1	74.4
0°-90°	4855.6	74.5
90°-120°	676.1	10.4
90°-150°	1405.3	21.6
90°-180°	1659.0	25.5
0°-180°	6515.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3161	3161	3161	3161	3161	
5°	3106	3188	3173	3181	3222	298
15°	3148	3259	3195	3178	3200	886
25°	2899	2996	2931	2843	2867	1324
35°	2255	2291	2255	2199	2208	1382
45°	957	1114	1125	1087	913	740
55°	89	103	170	96	89	98
65°	2	2	2	0	0	3
75°	0	2	0	0	0	1
85°	2	2	0	0	0	1
90°	0	2	4	6	6	1
95°	16	29	16	18	21	17
105°	60	92	352	449	297	63
115°	107	130	303	630	736	106
125°	154	174	286	500	591	136
135°	190	211	288	411	472	146
145°	225	244	290	358	396	142
155°	264	274	295	325	340	121
165°	293	297	303	311	317	82
175°	309	311	309	307	305	29
180°	309	309	309	309	309	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3160.6	3160.6	3160.6	3160.6	3160.6
2.5°	3119.2	3181.0	3158.7	3161.0	3176.4
5°	3106.4	3188.4	3173.0	3181.3	3222.3
7.5°	3115.7	3198.7	3196.7	3199.1	3239.1
10°	3123.6	3210.5	3202.6	3200.9	3237.1
12.5°	3139.4	3234.0	3202.6	3198.8	3229.2
15°	3148.3	3259.3	3195.2	3178.4	3200.1
17.5°	3118.2	3241.7	3154.7	3110.0	3118.7
20°	3076.8	3202.2	3111.3	3045.0	3059.5
22.5°	3011.6	3131.3	3050.1	2968.1	2986.5
25°	2899.1	2995.6	2931.2	2842.9	2867.0
27.5°	2739.2	2815.5	2774.8	2689.2	2704.2
30°	2622.8	2685.5	2652.4	2568.7	2575.9
32.5°	2488.5	2541.6	2506.3	2434.3	2433.8
35°	2255.1	2291.3	2255.1	2198.6	2208.3
37.5°	1949.7	1977.2	1940.3	1906.4	1911.2
40°	1734.5	1756.2	1717.3	1685.1	1680.2
42.5°	1466.1	1526.4	1488.3	1444.5	1451.3
45°	957.3	1114.1	1125.1	1086.6	912.9
47.5°	482.6	653.9	783.1	594.3	425.9
50°	281.3	385.0	570.0	314.7	264.0
52.5°	184.6	228.5	398.2	198.8	175.2
55°	88.8	103.3	170.2	96.1	88.8
57.5°	30.6	47.0	75.5	48.0	34.0
60°	4.9	19.4	41.9	14.5	2.5
62.5°	3.0	5.9	26.2	2.9	0.5
65°	2.5	2.5	2.5	0.0	0.0
67.5°	2.5	2.5	0.0	0.0	0.0
70°	2.5	2.5	0.0	0.0	0.0
72.5°	2.5	2.5	0.0	0.0	0.0
75°	0.0	2.4	0.0	0.0	0.0
77.5°	0.0	2.4	0.0	0.0	0.0
80°	0.0	2.4	0.0	0.0	0.0
82.5°	0.0	2.4	0.0	0.0	0.0
85°	2.5	2.5	0.0	0.0	0.0
87.5°	2.0	2.4	0.8	1.2	1.2
90°	0.0	1.9	3.9	5.8	5.8
92.5°	4.7	6.6	8.5	12.1	13.6
95°	15.5	28.8	15.5	17.6	21.4
97.5°	27.6	55.3	114.2	33.7	29.1
100°	36.9	69.2	229.3	67.5	44.7
102.5°	46.2	80.1	310.1	178.1	97.5
105°	60.2	92.5	351.7	449.3	297.3
107.5°	74.2	98.5	335.7	653.8	612.4
110°	83.5	106.3	326.4	687.0	738.3

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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	92.9	115.7	317.1	667.6	753.9
115°	106.9	129.7	303.1	630.0	736.4
117.5°	121.2	143.7	299.6	589.3	698.7
120°	132.1	153.0	293.4	558.3	672.3
122.5°	139.9	162.3	285.6	531.6	636.5
125°	153.5	174.4	285.6	499.5	590.7
127.5°	164.8	186.0	286.0	462.1	552.2
130°	171.0	193.8	287.6	437.2	522.7
132.5°	178.8	201.5	287.6	425.9	496.2
135°	190.4	211.3	287.6	411.3	472.1
137.5°	200.1	222.5	287.6	395.2	447.3
140°	207.9	228.8	287.6	385.8	433.3
142.5°	215.7	235.0	289.1	374.8	419.3
145°	225.4	244.4	289.5	358.4	396.4
147.5°	237.0	253.8	291.8	346.5	375.8
150°	244.8	260.0	293.4	338.6	363.3
152.5°	252.6	266.3	293.4	332.3	352.5
155°	264.2	273.7	295.3	324.8	340.0
157.5°	273.6	282.7	297.7	320.1	331.1
160°	279.8	287.4	299.2	316.9	326.4
162.5°	284.4	292.0	300.8	315.3	321.8
165°	293.4	297.2	303.1	311.0	316.7
167.5°	298.4	301.9	305.0	309.0	312.4
170°	303.1	305.0	305.0	309.0	310.9
172.5°	304.7	308.1	306.6	307.4	309.3
175°	308.9	310.8	308.9	306.9	305.0
177.5°	308.9	310.4	308.9	308.9	307.4
180°	308.9	308.9	308.9	308.9	308.9

(END OF REPORT)