

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: P644765

Luminaire Tested: OMN4DIP-SR4F0-125D25U930-BBMOOB-1DUDD-WW

Issue Date: 9/2/2020



Test Information

Test Method: LM-79-2019
Report Number: P644765
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-SR4F0-125D25U930-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 - 250 LUMENS PER FOOT
Light Source: 3000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

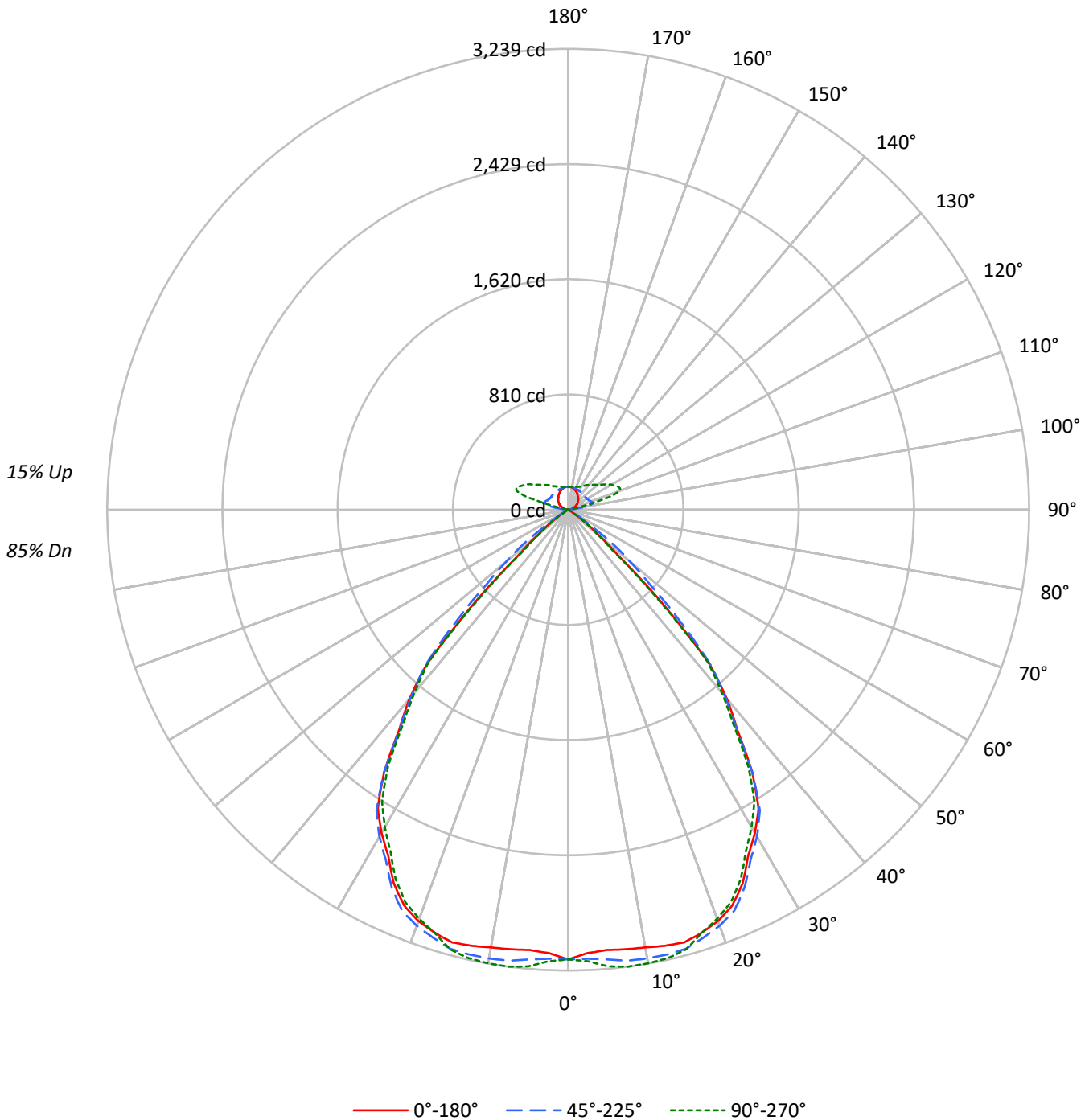
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5723.2 lumens
Efficiency: N/A
Efficacy: 99.0 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): 57.8
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	0
RCR																		
0	115	115	115	115	111	111	111	111	103	103	103	95	95	95	88	88	88	85
1	109	106	103	100	105	102	99	97	95	93	91	89	87	86	83	82	81	78
2	102	96	92	88	98	93	89	86	88	84	81	82	80	78	77	76	74	71
3	96	88	82	78	92	86	80	76	81	77	73	76	73	70	72	69	67	65
4	90	81	74	69	86	79	73	68	74	70	66	71	67	63	67	64	61	59
5	84	74	67	62	81	72	66	61	69	63	59	65	61	58	62	59	56	54
6	78	68	61	56	76	67	60	56	63	58	54	61	56	52	58	54	51	49
7	74	63	56	51	71	62	55	51	59	53	49	56	51	48	54	50	47	45
8	69	58	51	47	67	57	51	46	55	49	45	52	47	44	50	46	43	41
9	65	54	47	43	63	53	47	42	51	45	41	49	44	40	47	43	40	38
10	61	50	44	39	59	49	43	39	47	42	38	46	41	37	44	40	37	35

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	5.3
10°-20°	899.8	15.7
20°-30°	1331.5	23.3
30°-40°	1376.3	24.0
40°-50°	800.8	14.0
50°-60°	135.6	2.4
60°-70°	5.4	0.1
70°-80°	0.8	0.0
80°-90°	1.1	0.0
90°-100°	19.9	0.3
100°-110°	141.6	2.5
110°-120°	192.2	3.4
120°-130°	156.4	2.7
130°-140°	125.8	2.2
140°-150°	99.2	1.7
150°-160°	72.5	1.3
160°-170°	45.0	0.8
170°-180°	15.4	0.3
0°-30°	2535.3	44.3
0°-40°	3911.6	68.3
0°-60°	4848.1	84.7
0°-90°	4855.3	84.8
90°-120°	353.6	6.2
90°-150°	735.0	12.8
90°-180°	868.0	15.2
0°-180°	5723.2	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	1	2	3	3	1
95°	8	15	8	9	11	9
105°	32	48	184	235	156	33
115°	56	68	158	330	385	55
125°	80	91	149	261	309	71
135°	100	110	150	215	247	77
145°	118	128	151	187	207	74
155°	138	143	154	170	178	63
165°	154	155	158	163	166	43
175°	162	163	162	160	160	15
180°	162	162	162	162	162	



TEST NUMBER: P644765

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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	2.2	0.4	0.6	0.6
90°	0.0	1.0	2.0	3.0	3.0
92.5°	2.4	3.4	4.5	6.3	7.1
95°	8.1	15.1	8.1	9.2	11.2
97.5°	14.4	28.9	59.8	17.6	15.2
100°	19.3	36.2	119.9	35.3	23.4
102.5°	24.2	41.9	162.2	93.1	51.0
105°	31.5	48.4	183.9	235.0	155.5
107.5°	38.8	51.5	175.6	342.0	320.3
110°	43.7	55.6	170.7	359.3	386.2

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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	48.6	60.5	165.8	349.2	394.3
115°	55.9	67.8	158.5	329.5	385.2
117.5°	63.4	75.1	156.7	308.2	365.4
120°	69.1	80.0	153.5	292.0	351.6
122.5°	73.2	84.9	149.4	278.1	332.9
125°	80.3	91.2	149.4	261.2	308.9
127.5°	86.2	97.3	149.6	241.7	288.8
130°	89.4	101.4	150.4	228.7	273.4
132.5°	93.5	105.4	150.4	222.8	259.5
135°	99.6	110.5	150.4	215.1	246.9
137.5°	104.7	116.4	150.4	206.7	233.9
140°	108.7	119.7	150.4	201.8	226.6
142.5°	112.8	122.9	151.2	196.1	219.3
145°	117.9	127.8	151.4	187.4	207.3
147.5°	124.0	132.7	152.6	181.2	196.5
150°	128.0	136.0	153.5	177.1	190.0
152.5°	132.1	139.3	153.5	173.8	184.3
155°	138.2	143.2	154.5	169.9	177.8
157.5°	143.1	147.9	155.7	167.4	173.2
160°	146.3	150.3	156.5	165.8	170.7
162.5°	148.8	152.8	157.3	164.9	168.3
165°	153.5	155.4	158.5	162.7	165.6
167.5°	156.1	157.9	159.5	161.6	163.4
170°	158.5	159.5	159.5	161.6	162.6
172.5°	159.3	161.1	160.4	160.8	161.8
175°	161.6	162.6	161.6	160.5	159.5
177.5°	161.6	162.4	161.6	161.6	160.8
180°	161.6	161.6	161.6	161.6	161.6

(END OF REPORT)