

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: P644831

Luminaire Tested: OMN4DIP-SR4F0-125D75U935-BBMOOB-1DUDD-WW

Issue Date: 9/2/2020



Test Information

Test Method: LM-79-2019
Report Number: P644831
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-SR4F0-125D75U935-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 - 750 LUMENS PER FOOT
Light Source: 3500K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

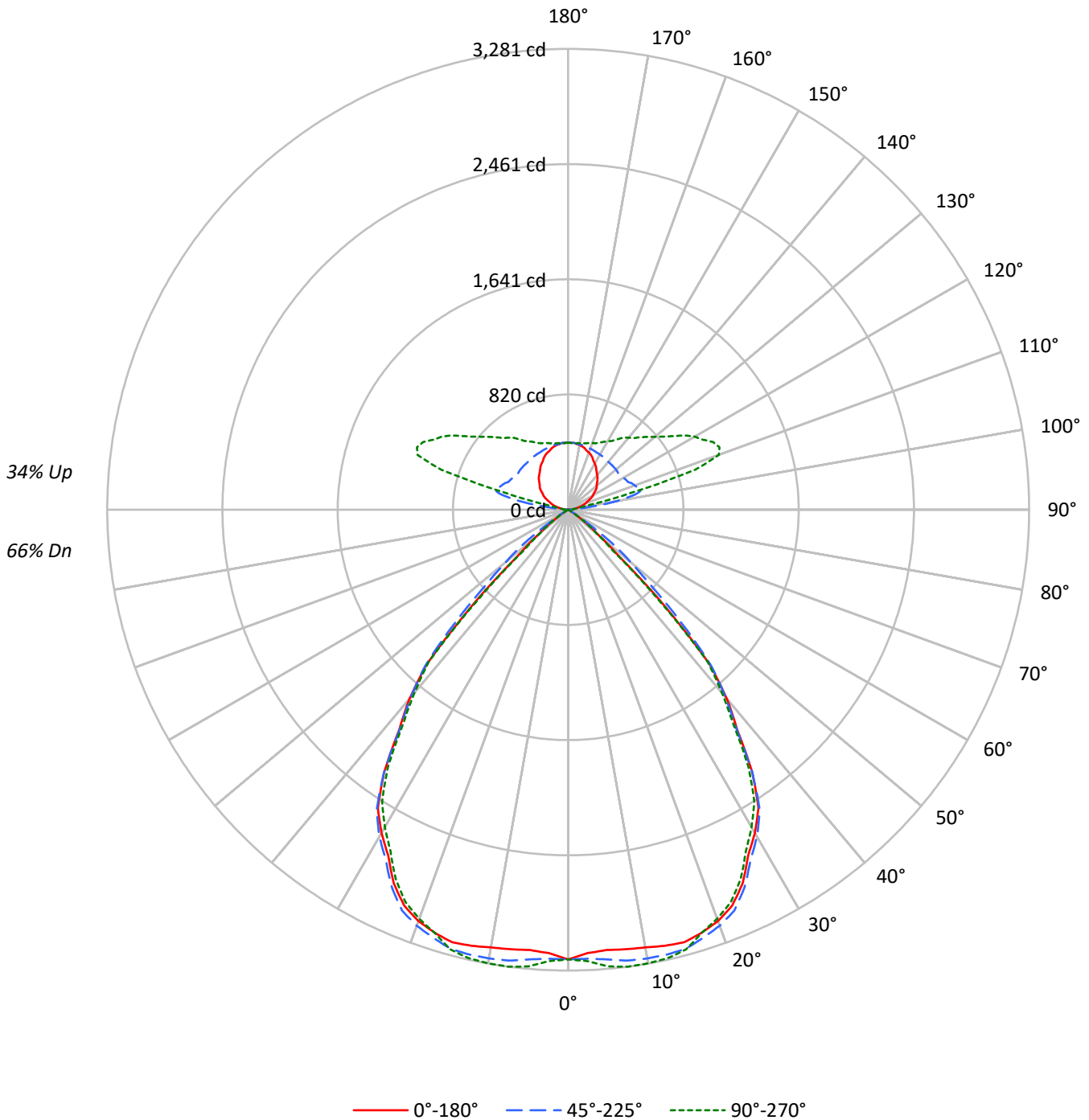
Lumens per Lamp: N/A
Luminaire Lumens: 7483.2 lumens
Efficiency: N/A
Efficacy: 106.4 lumens/watt
Spacing Criteria (0/90/45): 1.22 / 1.21 / 1.18
Luminous Opening: Rectangular (W 0.21' x L: 4' x H: 0')
CIE Type: Semi-Direct

Input Watts (W): 70.3
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	0
RCR																		
0	111	111	111	111	104	104	104	104	92	92	92	81	81	81	71	71	71	66
1	104	100	97	95	98	95	92	90	85	83	81	75	74	73	66	65	65	61
2	97	91	86	82	91	86	82	78	77	74	72	69	67	65	62	60	59	55
3	90	83	77	72	85	78	73	69	71	67	64	64	61	58	57	55	53	50
4	84	75	68	63	79	72	66	61	65	60	57	59	55	53	53	51	48	46
5	78	69	62	56	74	65	59	55	60	55	51	54	51	48	49	46	44	42
6	73	63	56	51	69	60	54	49	55	50	46	50	46	43	46	43	40	38
7	68	58	51	46	65	55	49	44	51	46	42	47	42	39	43	39	37	35
8	64	53	46	41	61	51	45	40	47	42	38	43	39	36	40	36	34	32
9	60	49	42	38	57	47	41	37	44	39	35	40	36	33	37	34	31	29
10	57	46	39	35	54	44	38	34	41	36	32	38	33	30	35	31	29	27

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	41352	41352	41352
5°	40796	41672	42320
10°	41498	42547	43006
15°	42643	43278	43345
20°	42837	43318	42597
25°	41851	42314	41388
30°	39623	40070	38915
35°	36018	36018	35269
40°	29624	29329	28697
45°	17714	20817	16891
50°	5725	11601	5373
55°	2027	3882	2027
60°	129	1098	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: 20817 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	308.0	4.1
10°-20°	911.4	12.2
20°-30°	1348.7	18.0
30°-40°	1394.0	18.6
40°-50°	811.1	10.8
50°-60°	137.4	1.8
60°-70°	5.4	0.1
70°-80°	0.8	0.0
80°-90°	1.8	0.0
90°-100°	58.7	0.8
100°-110°	418.3	5.6
110°-120°	567.9	7.6
120°-130°	462.2	6.2
130°-140°	371.7	5.0
140°-150°	293.1	3.9
150°-160°	214.3	2.9
160°-170°	133.1	1.8
170°-180°	45.4	0.6
0°-30°	2568.0	34.3
0°-40°	3962.0	52.9
0°-60°	4910.6	65.6
0°-90°	4918.5	65.7
90°-120°	1044.9	14.0
90°-150°	2171.9	29.0
90°-180°	2565.0	34.3
0°-180°	7483.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3201	3201	3201	3201	3201	
5°	3146	3230	3214	3222	3264	301
15°	3189	3301	3236	3219	3241	897
25°	2936	3034	2969	2880	2904	1341
35°	2284	2321	2284	2227	2237	1399
45°	970	1128	1140	1101	925	750
55°	90	105	172	97	90	99
65°	2	2	2	0	0	3
75°	0	2	0	0	0	1
85°	2	2	0	0	0	1
90°	0	3	6	9	9	1
95°	24	45	24	27	33	27
105°	93	143	544	694	459	98
115°	165	200	468	974	1138	164
125°	237	270	441	772	913	211
135°	294	327	444	636	730	226
145°	348	378	447	554	613	219
155°	408	423	456	502	526	187
165°	453	459	468	481	490	127
175°	478	480	478	474	471	45
180°	478	478	478	478	478	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3201.4	3201.4	3201.4	3201.4	3201.4
2.5°	3159.4	3222.0	3199.4	3201.7	3217.4
5°	3146.4	3229.5	3213.9	3222.3	3263.9
7.5°	3155.9	3240.0	3237.9	3240.3	3280.9
10°	3163.9	3251.9	3243.9	3242.2	3278.9
12.5°	3179.9	3275.7	3243.9	3240.1	3270.9
15°	3188.9	3301.3	3236.4	3219.4	3241.4
17.5°	3158.4	3283.5	3195.4	3150.1	3158.9
20°	3116.4	3243.5	3151.4	3084.3	3098.9
22.5°	3050.4	3171.6	3089.4	3006.4	3024.9
25°	2936.5	3034.2	2969.0	2879.6	2904.0
27.5°	2774.5	2851.7	2810.5	2723.9	2739.0
30°	2656.6	2720.1	2686.6	2601.8	2609.1
32.5°	2520.6	2574.4	2538.6	2465.6	2465.1
35°	2284.2	2320.9	2284.2	2226.9	2236.7
37.5°	1974.8	2002.7	1965.3	1930.9	1935.8
40°	1756.9	1778.9	1739.4	1706.8	1701.9
42.5°	1485.0	1546.1	1507.5	1463.1	1470.0
45°	969.7	1128.5	1139.6	1100.6	924.7
47.5°	488.8	662.3	793.2	601.9	431.3
50°	284.9	390.0	577.3	318.7	267.4
52.5°	186.9	231.4	403.4	201.4	177.4
55°	90.0	104.6	172.4	97.3	90.0
57.5°	31.0	47.6	76.5	48.7	34.5
60°	5.0	19.7	42.5	14.7	2.5
62.5°	3.0	5.9	26.5	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	2.6	1.2	1.8	1.8
90°	0.0	2.9	6.0	9.0	9.0
92.5°	7.2	10.1	13.2	18.7	21.0
95°	24.0	44.6	24.0	27.2	33.0
97.5°	42.6	85.5	176.6	52.1	45.0
100°	57.1	107.0	354.3	104.3	69.1
102.5°	71.5	123.7	479.3	275.2	150.7
105°	93.1	143.0	543.5	694.3	459.4
107.5°	114.7	152.3	518.9	1010.5	946.5
110°	129.1	164.4	504.5	1061.8	1141.1



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	143.5	178.8	490.1	1031.8	1165.1
115°	165.2	200.4	468.4	973.7	1138.1
117.5°	187.4	222.0	463.0	910.7	1079.8
120°	204.2	236.5	453.4	862.8	1039.0
122.5°	216.2	250.9	441.4	821.7	983.7
125°	237.2	269.5	441.4	771.9	912.9
127.5°	254.6	287.5	442.0	714.2	853.4
130°	264.3	299.5	444.4	675.6	807.8
132.5°	276.3	311.5	444.4	658.3	766.9
135°	294.3	326.6	444.4	635.7	729.7
137.5°	309.3	343.9	444.4	610.8	691.3
140°	321.3	353.6	444.4	596.2	669.6
142.5°	333.3	363.3	446.8	579.3	648.0
145°	348.3	377.7	447.4	553.9	612.6
147.5°	366.3	392.2	451.0	535.5	580.8
150°	378.4	401.8	453.4	523.4	561.5
152.5°	390.4	411.5	453.4	513.6	544.7
155°	408.4	423.1	456.4	502.0	525.5
157.5°	422.8	436.9	460.0	494.7	511.7
160°	432.4	444.2	462.4	489.8	504.5
162.5°	439.6	451.4	464.8	487.3	497.3
165°	453.4	459.3	468.4	480.7	489.5
167.5°	461.2	466.5	471.4	477.6	482.9
170°	468.4	471.4	471.4	477.5	480.5
172.5°	470.8	476.1	473.8	475.1	478.1
175°	477.5	480.4	477.5	474.4	471.4
177.5°	477.5	479.8	477.5	477.4	475.1
180°	477.5	477.5	477.5	477.5	477.5

(END OF REPORT)