

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: P644807

Luminaire Tested: OMN4DIP-SR4F0-125D50U940-BBMOOB-1DUDD-WW

Issue Date: 9/2/2020



Test Information

Test Method: LM-79-2019
Report Number: P644807
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-SR4F0-125D50U940-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: 4000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

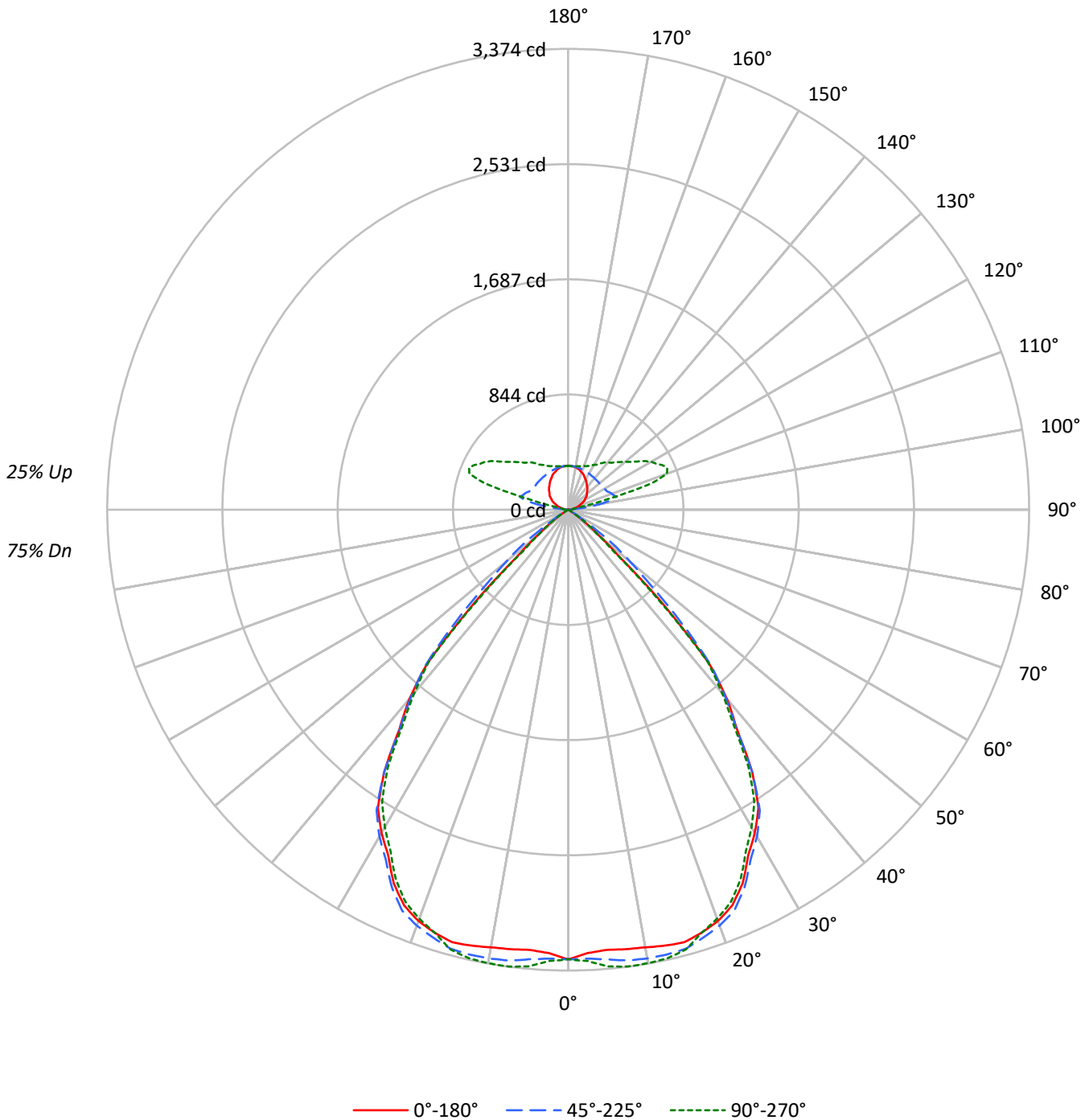
Lumens per Lamp: N/A
Luminaire Lumens: 6785.4 lumens
Efficiency: N/A
Efficacy: 105.9 lumens/watt
Spacing Criteria (0/90/45): 1.22 / 1.21 / 1.18
Luminous Opening: Rectangular (W 0.21' x L: 4' x H: 0')
CIE Type: Semi-Direct

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	0
RCR																				
0	113	113	113	113	107	107	107	107	97	97	97		87	87	87		79	79	79	75
1	106	103	100	97	101	98	96	93	89	88	86		81	80	79		74	73	72	69
2	99	93	89	85	95	90	85	82	82	79	76		75	73	71		69	67	66	63
3	93	85	79	75	88	82	77	72	75	71	68		70	66	64		64	62	60	57
4	87	78	71	66	83	75	69	64	69	65	61		64	61	58		60	57	54	52
5	81	71	64	59	77	69	62	58	64	59	55		59	55	52		55	52	49	47
6	76	65	58	53	72	63	57	52	59	54	50		55	51	47		51	48	45	43
7	71	60	53	48	68	58	52	47	54	49	45		51	47	43		48	44	41	39
8	66	55	49	44	64	54	47	43	51	45	41		47	43	40		45	41	38	36
9	62	51	45	40	60	50	44	39	47	42	38		44	40	36		42	38	35	33
10	59	48	41	37	56	46	40	36	44	39	35		41	37	34		39	35	32	31

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	42519	42519	42519
5°	41949	42848	43514
10°	42669	43748	44219
15°	43847	44501	44569
20°	44047	44542	43799
25°	43033	43509	42557
30°	40742	41201	40014
35°	37035	37035	36266
40°	30460	30157	29508
45°	18212	21405	17368
50°	5886	11928	5526
55°	2083	3993	2083
60°	132	1129	67
65°	79	79	0
70°	98	0	0
75°	0	0	0
80°	0	0	0
85°	385	0	0

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°
 Vertical Angle: 45°
 Luminance: 21405 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	316.7	4.7
10°-20°	937.1	13.8
20°-30°	1386.8	20.4
30°-40°	1433.4	21.1
40°-50°	834.0	12.3
50°-60°	141.3	2.1
60°-70°	5.6	0.1
70°-80°	0.8	0.0
80°-90°	1.5	0.0
90°-100°	39.6	0.6
100°-110°	281.9	4.2
110°-120°	382.7	5.6
120°-130°	311.5	4.6
130°-140°	250.5	3.7
140°-150°	197.5	2.9
150°-160°	144.4	2.1
160°-170°	89.7	1.3
170°-180°	30.6	0.5
0°-30°	2640.5	38.9
0°-40°	4073.9	60.0
0°-60°	5049.2	74.4
0°-90°	5057.0	74.5
90°-120°	704.2	10.4
90°-150°	1463.7	21.6
90°-180°	1728.0	25.5
0°-180°	6785.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3292	3292	3292	3292	3292	
5°	3235	3321	3305	3313	3356	310
15°	3279	3394	3328	3310	3333	922
25°	3019	3120	3053	2961	2986	1379
35°	2349	2386	2349	2290	2300	1439
45°	997	1160	1172	1132	951	771
55°	92	108	177	100	92	102
65°	3	3	3	0	0	3
75°	0	2	0	0	0	1
85°	3	3	0	0	0	1
90°	0	2	4	6	6	1
95°	16	30	16	18	22	18
105°	63	96	366	468	310	66
115°	111	135	316	656	767	110
125°	160	182	298	520	615	142
135°	198	220	300	428	492	153
145°	235	254	302	373	413	147
155°	275	285	308	338	354	126
165°	306	310	316	324	330	86
175°	322	324	322	320	318	30
180°	322	322	322	322	322	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3291.8	3291.8	3291.8	3291.8	3291.8
2.5°	3248.6	3312.9	3289.7	3292.2	3308.2
5°	3235.3	3320.7	3304.6	3313.3	3356.0
7.5°	3245.0	3331.5	3329.3	3331.8	3373.5
10°	3253.2	3343.7	3335.5	3333.8	3371.4
12.5°	3269.7	3368.2	3335.5	3331.6	3363.2
15°	3278.9	3394.5	3327.8	3310.3	3332.9
17.5°	3247.6	3376.2	3285.6	3239.1	3248.1
20°	3204.4	3335.1	3240.4	3171.4	3186.4
22.5°	3136.6	3261.2	3176.7	3091.3	3110.4
25°	3019.4	3119.9	3052.8	2960.9	2986.0
27.5°	2852.9	2932.3	2889.9	2800.8	2816.4
30°	2731.6	2796.9	2762.4	2675.2	2682.8
32.5°	2591.8	2647.1	2610.3	2535.3	2534.8
35°	2348.7	2386.4	2348.7	2289.8	2299.9
37.5°	2030.6	2059.2	2020.8	1985.5	1990.5
40°	1806.5	1829.1	1788.5	1755.0	1750.0
42.5°	1526.9	1589.7	1550.0	1504.5	1511.5
45°	997.0	1160.4	1171.8	1131.7	950.8
47.5°	502.6	681.0	815.6	618.9	443.5
50°	292.9	401.0	593.6	327.7	275.0
52.5°	192.2	237.9	414.7	207.1	182.4
55°	92.5	107.6	177.3	100.0	92.5
57.5°	31.9	48.9	78.6	50.0	35.5
60°	5.1	20.2	43.7	15.1	2.6
62.5°	3.1	6.1	27.2	3.0	0.5
65°	2.6	2.6	2.6	0.0	0.0
67.5°	2.6	2.6	0.0	0.0	0.0
70°	2.6	2.6	0.0	0.0	0.0
72.5°	2.6	2.6	0.0	0.0	0.0
75°	0.0	2.5	0.0	0.0	0.0
77.5°	0.0	2.5	0.0	0.0	0.0
80°	0.0	2.5	0.0	0.0	0.0
82.5°	0.0	2.5	0.0	0.0	0.0
85°	2.6	2.6	0.0	0.0	0.0
87.5°	2.1	2.5	0.8	1.2	1.2
90°	0.0	2.0	4.0	6.1	6.1
92.5°	4.9	6.8	8.9	12.6	14.2
95°	16.2	30.0	16.2	18.3	22.3
97.5°	28.7	57.6	119.0	35.1	30.4
100°	38.4	72.1	238.8	70.3	46.5
102.5°	48.2	83.4	323.0	185.5	101.6
105°	62.7	96.4	366.3	467.9	309.6
107.5°	77.3	102.6	349.7	681.0	637.8
110°	87.0	110.8	340.0	715.5	769.0



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	96.7	120.5	330.2	695.3	785.1
115°	111.3	135.0	315.7	656.1	766.9
117.5°	126.3	149.6	312.0	613.7	727.7
120°	137.6	159.4	305.6	581.4	700.2
122.5°	145.7	169.0	297.5	553.7	662.9
125°	159.9	181.6	297.5	520.2	615.2
127.5°	171.6	193.8	297.9	481.3	575.1
130°	178.1	201.8	299.5	455.3	544.3
132.5°	186.2	209.9	299.5	443.6	516.8
135°	198.3	220.1	299.5	428.4	491.7
137.5°	208.4	231.8	299.5	411.6	465.8
140°	216.5	238.3	299.5	401.8	451.3
142.5°	224.6	244.8	301.1	390.4	436.7
145°	234.7	254.5	301.5	373.2	412.8
147.5°	246.9	264.3	303.9	360.9	391.4
150°	255.0	270.8	305.6	352.7	378.4
152.5°	263.1	277.3	305.6	346.1	367.1
155°	275.2	285.1	307.6	338.3	354.1
157.5°	284.9	294.4	310.0	333.3	344.8
160°	291.4	299.3	311.6	330.1	340.0
162.5°	296.2	304.2	313.2	328.4	335.1
165°	305.6	309.5	315.7	323.9	329.8
167.5°	310.8	314.4	317.7	321.8	325.4
170°	315.7	317.7	317.7	321.8	323.8
172.5°	317.3	320.9	319.3	320.2	322.2
175°	321.7	323.7	321.7	319.7	317.7
177.5°	321.7	323.3	321.7	321.7	320.1
180°	321.7	321.7	321.7	321.7	321.7

(END OF REPORT)