

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: P644830

Luminaire Tested: OMN4DIP-SR4F0-125D75U930-WBMOOB-1DUDD-WW

Issue Date: 9/2/2020



Test Information

Test Method: LM-79-2019
Report Number: P644830
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-SR4F0-125D75U930-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 - 750 LUMENS PER FOOT
Light Source: 3000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

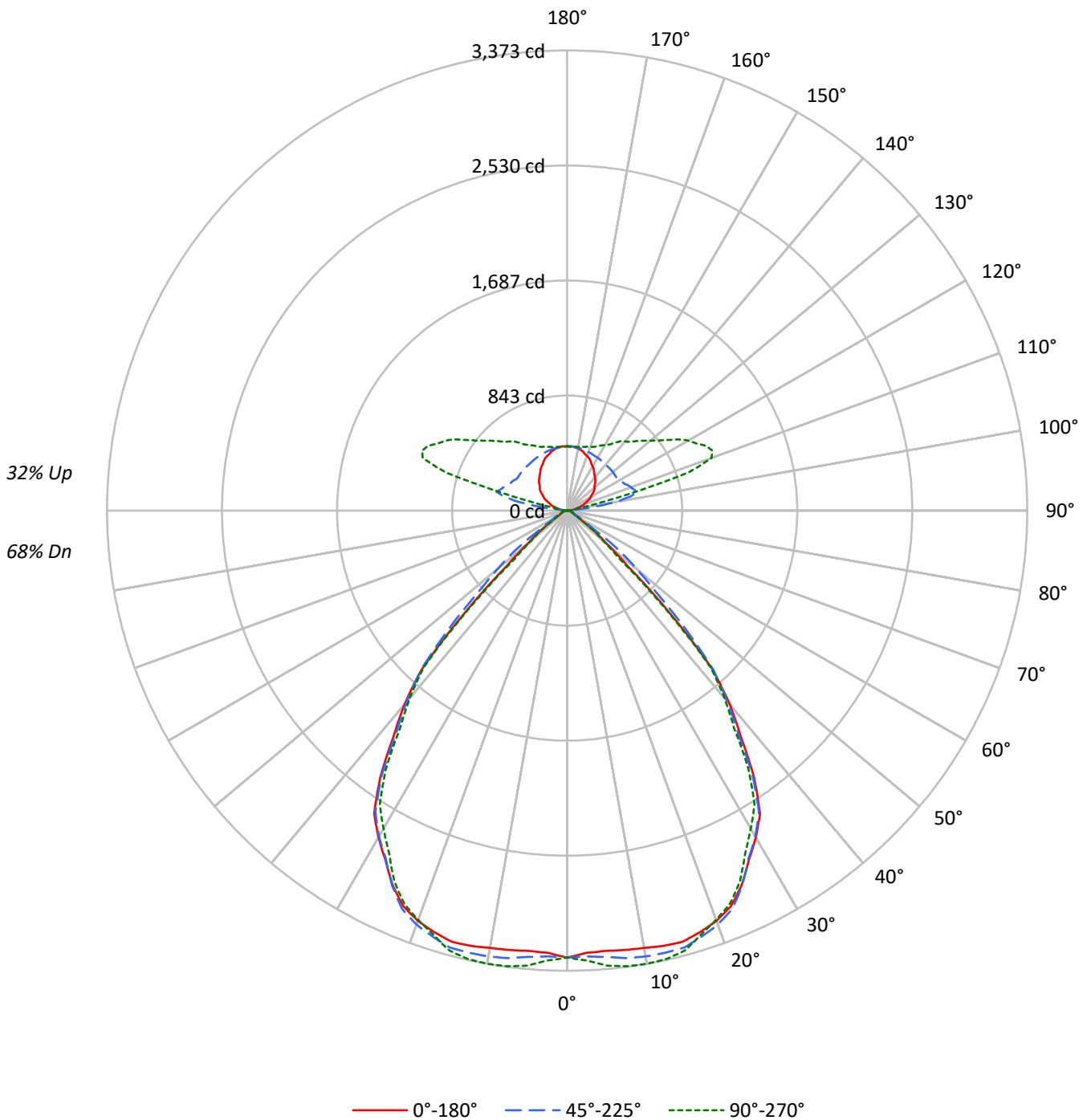
Lumens per Lamp: N/A
Luminaire Lumens: 7801.9 lumens
Efficiency: N/A
Efficacy: 111.0 lumens/watt
Spacing Criteria (0/90/45): 1.24 / 1.21 / 1.19
Luminous Opening: Rectangular (W 0.21' x L: 4' x H: 0')
CIE Type: Semi-Direct

Input Watts (W): 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	50	30	10	0	
RCR																						
0	111	111	111	111	105	105	105	105	93	93	93	82	82	82	72	72	72	68				
1	104	101	97	95	98	95	93	90	85	83	81	76	75	73	68	67	66	62				
2	97	91	86	82	92	86	82	78	78	74	72	70	67	65	63	61	59	56				
3	90	82	76	71	85	78	73	69	71	67	63	64	61	58	58	56	54	50				
4	84	75	68	63	79	71	65	61	65	60	57	59	55	53	54	51	49	46				
5	78	68	61	56	74	65	59	54	60	55	51	54	50	47	50	47	44	42				
6	73	62	55	50	69	60	53	49	55	50	46	50	46	43	46	43	40	38				
7	68	57	50	45	65	55	48	44	51	45	41	47	42	39	43	39	37	35				
8	64	53	46	41	61	51	44	40	47	42	38	43	39	36	40	36	34	32				
9	60	49	42	37	57	47	41	36	43	38	35	40	36	33	37	34	31	29				
10	56	45	38	34	54	44	37	33	40	35	32	38	33	30	35	31	29	27				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	42323	42323	42323
5°	42005	42581	43413
10°	42685	43525	44238
15°	43750	44344	44641
20°	43988	44394	43886
25°	43147	43252	42725
30°	41253	41143	40148
35°	37661	37349	36572
40°	31285	30828	30245
45°	19652	22355	18749
50°	7536	13238	6991
55°	3556	5556	3612
60°	1721	2806	1529
65°	1583	1660	1433
70°	1582	1582	1397
75°	1602	1602	1352
80°	1651	1465	1287
85°	1823	1467	1097

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°
 Vertical Angle: 45°
 Luminance: 22355 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	315.6	4.0
10°-20°	933.5	12.0
20°-30°	1386.7	17.8
30°-40°	1451.4	18.6
40°-50°	879.1	11.3
50°-60°	202.8	2.6
60°-70°	55.7	0.7
70°-80°	32.7	0.4
80°-90°	12.3	0.2
90°-100°	57.9	0.7
100°-110°	413.0	5.3
110°-120°	560.7	7.2
120°-130°	456.3	5.8
130°-140°	367.0	4.7
140°-150°	289.3	3.7
150°-160°	211.6	2.7
160°-170°	131.4	1.7
170°-180°	44.8	0.6
0°-30°	2635.7	33.8
0°-40°	4087.1	52.4
0°-60°	5169.1	66.3
0°-90°	5269.8	67.5
90°-120°	1031.6	13.2
90°-150°	2144.3	27.5
90°-180°	2532.0	32.5
0°-180°	7801.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3277	3277	3277	3277	3277	
5°	3240	3314	3284	3298	3348	310
15°	3272	3371	3316	3290	3338	921
25°	3027	3117	3035	2957	2998	1386
35°	2388	2425	2369	2314	2319	1468
45°	1076	1223	1224	1181	1026	826
55°	158	180	247	170	160	164
65°	52	54	54	49	47	52
75°	32	32	32	30	27	34
85°	12	12	10	10	7	12
90°	0	3	6	9	9	2
95°	24	44	24	27	33	27
105°	92	141	537	686	454	97
115°	163	198	462	961	1124	162
125°	234	266	436	762	901	208
135°	290	322	439	628	720	224
145°	344	373	442	547	605	216
155°	403	418	451	496	519	185
165°	448	454	462	474	483	126
175°	471	474	471	468	465	45
180°	471	471	471	471	471	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3276.6	3276.6	3276.6	3276.6	3276.6
2.5°	3245.0	3302.9	3270.7	3273.3	3300.3
5°	3239.6	3314.4	3284.0	3297.5	3348.2
7.5°	3248.5	3326.6	3308.7	3313.4	3368.9
10°	3254.4	3336.4	3318.5	3317.3	3372.8
12.5°	3268.2	3354.1	3320.5	3313.4	3366.9
15°	3271.7	3370.6	3316.1	3290.0	3338.3
17.5°	3239.6	3348.6	3275.1	3221.2	3259.8
20°	3200.1	3311.1	3229.7	3154.1	3192.7
22.5°	3138.9	3248.0	3160.6	3079.2	3119.7
25°	3027.4	3116.7	3034.8	2956.8	2997.8
27.5°	2886.3	2949.0	2878.9	2804.9	2828.0
30°	2765.9	2828.6	2758.5	2682.2	2691.8
32.5°	2631.6	2684.7	2616.3	2547.9	2555.7
35°	2388.4	2424.6	2368.6	2314.5	2319.3
37.5°	2092.3	2097.1	2059.2	2009.9	2010.9
40°	1855.4	1869.9	1828.3	1788.9	1793.7
42.5°	1573.2	1630.1	1589.4	1553.9	1554.9
45°	1075.8	1222.9	1223.8	1180.8	1026.4
47.5°	594.1	764.5	873.9	677.7	511.7
50°	375.0	483.6	658.8	396.1	347.9
52.5°	268.4	317.2	481.1	280.2	255.1
55°	157.9	179.6	246.7	170.0	160.4
57.5°	96.2	115.0	144.1	113.6	96.7
60°	66.6	83.5	108.6	76.1	59.2
62.5°	58.7	64.0	84.9	60.6	55.3
65°	51.8	54.2	54.3	49.3	46.9
67.5°	45.9	48.3	45.9	43.4	41.0
70°	41.9	44.4	41.9	39.4	37.0
72.5°	38.0	40.4	38.0	35.5	33.1
75°	32.1	32.1	32.1	29.6	27.1
77.5°	26.2	26.2	25.7	23.6	21.2
80°	22.2	22.2	19.7	19.7	17.3
82.5°	18.3	18.3	15.8	15.7	13.3
85°	12.3	12.3	9.9	9.8	7.4
87.5°	5.9	6.5	5.1	5.7	3.8
90°	0.0	2.9	5.9	8.9	8.9
92.5°	7.1	10.0	13.0	18.4	20.8
95°	23.7	44.0	23.7	26.8	32.6
97.5°	42.1	84.4	174.3	51.4	44.5
100°	56.3	105.6	349.8	103.0	68.2
102.5°	70.6	122.2	473.2	271.7	148.8
105°	91.9	141.2	536.6	685.5	453.6
107.5°	113.2	150.4	512.3	997.6	934.5
110°	127.5	162.3	498.1	1048.3	1126.6



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	141.7	176.5	483.8	1018.7	1150.3
115°	163.1	197.8	462.5	961.3	1123.6
117.5°	185.0	219.2	457.1	899.1	1066.1
120°	201.6	233.5	447.7	851.8	1025.8
122.5°	213.5	247.7	435.8	811.2	971.2
125°	234.2	266.1	435.8	762.1	901.2
127.5°	251.4	283.9	436.4	705.1	842.5
130°	260.9	295.7	438.8	667.0	797.5
132.5°	272.7	307.5	438.8	649.9	757.2
135°	290.5	322.4	438.8	627.6	720.4
137.5°	305.4	339.6	438.8	603.0	682.5
140°	317.2	349.1	438.8	588.6	661.1
142.5°	329.1	358.6	441.1	571.9	639.8
145°	343.9	372.9	441.7	546.8	604.8
147.5°	361.7	387.2	445.3	528.7	573.4
150°	373.5	396.7	447.7	516.7	554.4
152.5°	385.4	406.3	447.7	507.1	537.8
155°	403.2	417.7	450.6	495.6	518.8
157.5°	417.4	431.3	454.2	488.4	505.2
160°	426.9	438.5	456.6	483.6	498.1
162.5°	434.0	445.6	458.9	481.1	490.9
165°	447.7	453.5	462.5	474.5	483.2
167.5°	455.4	460.6	465.4	471.5	476.7
170°	462.5	465.4	465.4	471.4	474.3
172.5°	464.9	470.1	467.8	469.1	472.0
175°	471.4	474.3	471.4	468.3	465.4
177.5°	471.4	473.7	471.4	471.3	469.0
180°	471.4	471.4	471.4	471.4	471.4

(END OF REPORT)