

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: P644842

Luminaire Tested: OMN4DIP-SR4F0-125D75U940-WBMOOB-1DUDD-WW

Issue Date: 9/2/2020



**Test Information**

Test Method: LM-79-2019  
Report Number: P644842  
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-SR4F0-125D75U940-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: 4000K CCT, 90 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

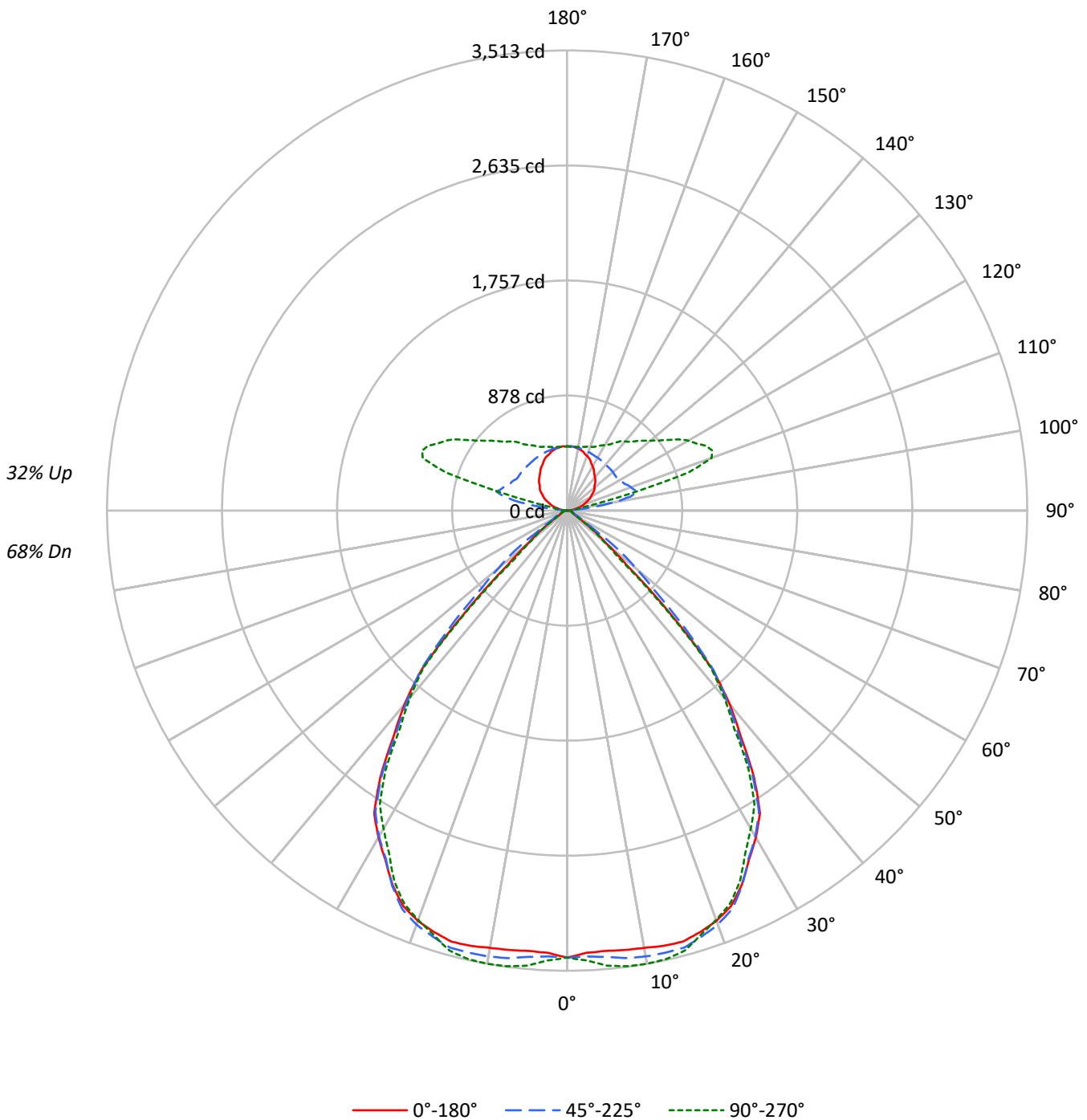
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 8125.6 lumens  
Efficiency: N/A  
Efficacy: 115.6 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 (A<sub>in</sub>): 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																		
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	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	68	68	68	68	68	68	68	68	68	68	68	68																
1	104	101	97	95	98	95	93	90	85	83	81	76	75	73	68	67	66	62	62	62	62	62	62	62	62	62	62	62	62	62																
2	97	91	86	82	92	86	82	78	78	74	72	70	67	65	63	61	59	56	56	56	56	56	56	56	56	56	56	56	56	56																
3	90	82	76	71	85	78	73	69	71	67	63	64	61	58	58	56	54	50	50	50	50	50	50	50	50	50	50	50	50	50																
4	84	75	68	63	79	71	65	61	65	60	57	59	55	53	54	51	49	46	46	46	46	46	46	46	46	46	46	46	46	46																
5	78	68	61	56	74	65	59	54	60	55	51	54	50	47	50	47	44	42	42	42	42	42	42	42	42	42	42	42	42	42																
6	73	62	55	50	69	60	53	49	55	50	46	50	46	43	46	43	40	38	38	38	38	38	38	38	38	38	38	38	38	38																
7	68	57	50	45	65	55	48	44	51	45	41	47	42	39	43	39	37	35	35	35	35	35	35	35	35	35	35	35	35	35																
8	64	53	46	41	61	51	44	40	47	42	38	43	39	36	40	36	34	32	32	32	32	32	32	32	32	32	32	32	32	32																
9	60	49	42	37	57	47	41	36	43	38	35	40	36	33	37	34	31	29	29	29	29	29	29	29	29	29	29	29	29	29																
10	56	45	38	34	54	44	37	33	40	35	32	38	33	30	35	31	29	27	27	27	27	27	27	27	27	27	27	27	27	27																

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	44080	44080	44080
5°	43747	44348	45214
10°	44455	45331	46074
15°	45565	46184	46493
20°	45813	46236	45707
25°	44937	45046	44498
30°	42964	42849	41814
35°	39224	38899	38089
40°	32583	32106	31501
45°	20466	23283	19527
50°	7849	13787	7280
55°	3704	5788	3761
60°	1793	2922	1594
65°	1650	1727	1492
70°	1650	1650	1454
75°	1667	1667	1412
80°	1718	1532	1339
85°	1897	1526	1141

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 45°  
 Vertical Angle: 45°  
 Luminance: 23283 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	328.7	4.0
10°-20°	972.2	12.0
20°-30°	1444.2	17.8
30°-40°	1511.6	18.6
40°-50°	915.6	11.3
50°-60°	211.3	2.6
60°-70°	58.1	0.7
70°-80°	34.0	0.4
80°-90°	12.9	0.2
90°-100°	60.4	0.7
100°-110°	430.1	5.3
110°-120°	583.9	7.2
120°-130°	475.3	5.8
130°-140°	382.3	4.7
140°-150°	301.4	3.7
150°-160°	220.3	2.7
160°-170°	136.9	1.7
170°-180°	46.7	0.6
0°-30°	2745.1	33.8
0°-40°	4256.7	52.4
0°-60°	5383.6	66.3
0°-90°	5488.5	67.5
90°-120°	1074.4	13.2
90°-150°	2233.3	27.5
90°-180°	2637.0	32.5
0°-180°	8125.6	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	3413	3413	3413	3413	3413	
5°	3374	3452	3420	3434	3487	323
15°	3407	3510	3454	3426	3477	959
25°	3153	3246	3161	3080	3122	1444
35°	2488	2525	2467	2410	2416	1529
45°	1120	1274	1275	1230	1069	860
55°	164	187	257	177	167	171
65°	54	56	56	51	49	54
75°	33	33	33	31	28	35
85°	13	13	10	10	8	13
90°	0	3	6	9	9	2
95°	25	46	25	28	34	28
105°	96	147	559	714	472	101
115°	170	206	482	1001	1170	169
125°	244	277	454	794	939	217
135°	303	336	457	654	750	233
145°	358	388	460	570	630	225
155°	420	435	469	516	540	193
165°	466	472	482	494	503	131
175°	491	494	491	488	485	46
180°	491	491	491	491	491	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	3412.6	3412.6	3412.6	3412.6	3412.6
2.5°	3379.7	3440.0	3406.4	3409.1	3437.2
5°	3374.0	3451.9	3420.3	3434.3	3487.1
7.5°	3383.3	3464.7	3446.0	3450.9	3508.7
10°	3389.4	3474.9	3456.2	3455.0	3512.8
12.5°	3403.8	3493.3	3458.3	3450.8	3506.6
15°	3407.4	3510.4	3453.7	3426.5	3476.8
17.5°	3374.0	3487.6	3411.0	3354.9	3395.1
20°	3332.9	3448.5	3363.7	3285.0	3325.2
22.5°	3269.2	3382.7	3291.8	3206.9	3249.1
25°	3153.0	3246.0	3160.7	3079.5	3122.2
27.5°	3006.0	3071.4	2998.3	2921.3	2945.4
30°	2880.6	2946.0	2872.9	2793.5	2803.5
32.5°	2740.8	2796.1	2724.9	2653.7	2661.7
35°	2487.5	2525.2	2466.9	2410.5	2415.5
37.5°	2179.1	2184.1	2144.7	2093.3	2094.3
40°	1932.4	1947.5	1904.1	1863.1	1868.2
42.5°	1638.4	1697.7	1655.4	1618.4	1619.4
45°	1120.4	1273.7	1274.6	1229.8	1069.0
47.5°	618.8	796.2	910.2	705.8	533.0
50°	390.6	503.7	686.1	412.6	362.3
52.5°	279.6	330.3	501.1	291.8	265.7
55°	164.5	187.1	257.0	177.1	167.0
57.5°	100.2	119.8	150.1	118.3	100.7
60°	69.4	87.0	113.1	79.3	61.7
62.5°	61.2	66.7	88.4	63.1	57.6
65°	54.0	56.5	56.5	51.3	48.8
67.5°	47.8	50.3	47.8	45.2	42.7
70°	43.7	46.2	43.7	41.1	38.5
72.5°	39.6	42.1	39.6	36.9	34.4
75°	33.4	33.4	33.4	30.8	28.3
77.5°	27.2	27.2	26.7	24.6	22.1
80°	23.1	23.1	20.6	20.5	18.0
82.5°	19.0	19.0	16.4	16.4	13.9
85°	12.8	12.8	10.3	10.2	7.7
87.5°	6.2	6.8	5.3	5.9	3.9
90°	0.0	3.0	6.2	9.3	9.3
92.5°	7.4	10.4	13.6	19.2	21.6
95°	24.7	45.8	24.7	27.9	34.0
97.5°	43.8	87.9	181.6	53.6	46.3
100°	58.7	110.0	364.3	107.2	71.0
102.5°	73.5	127.2	492.8	283.0	155.0
105°	95.7	147.0	558.9	713.9	472.4
107.5°	117.9	156.6	533.5	1039.0	973.2
110°	132.8	169.0	518.7	1091.8	1173.3



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	147.6	183.8	503.9	1060.9	<i>1198.0</i>
115°	169.8	206.0	481.7	1001.2	<i>1170.2</i>
117.5°	192.7	228.3	476.1	936.4	<i>1110.3</i>
120°	210.0	243.2	466.2	887.2	<i>1068.3</i>
122.5°	222.3	257.9	453.9	844.9	<i>1011.5</i>
125°	243.9	277.1	453.9	793.7	<i>938.6</i>
127.5°	261.8	295.6	454.5	734.4	<i>877.5</i>
130°	271.7	307.9	457.0	694.7	<i>830.6</i>
132.5°	284.1	320.3	457.0	676.9	<i>788.6</i>
135°	302.6	335.8	457.0	653.7	<i>750.3</i>
137.5°	318.0	353.7	457.0	628.1	<i>710.8</i>
140°	330.4	363.6	457.0	613.1	<i>688.5</i>
142.5°	342.7	373.5	459.4	595.7	<i>666.3</i>
145°	358.2	388.4	460.1	569.5	<i>629.9</i>
147.5°	376.7	403.3	463.8	550.7	<i>597.2</i>
150°	389.0	413.2	466.2	538.1	<i>577.4</i>
152.5°	401.4	423.1	466.2	528.1	<i>560.1</i>
155°	419.9	435.0	469.3	516.2	<i>540.3</i>
157.5°	434.7	449.2	473.0	508.6	<i>526.1</i>
160°	444.6	456.7	475.5	503.6	<i>518.7</i>
162.5°	452.0	464.1	478.0	501.0	<i>511.3</i>
165°	466.2	472.3	481.7	494.2	<i>503.3</i>
167.5°	474.3	479.7	484.8	491.1	<i>496.5</i>
170°	481.7	484.7	484.8	491.0	<i>494.0</i>
172.5°	484.1	489.6	487.2	488.5	<i>491.6</i>
175°	490.9	494.0	490.9	487.8	<i>484.8</i>
177.5°	490.9	493.4	490.9	490.9	<i>488.5</i>
180°	490.9	490.9	490.9	490.9	<i>490.9</i>

(END OF REPORT)