

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: P644771

Luminaire Tested: OMN4DIP-SR4F0-125D25U935-BBMOOB-1DUDD-WW

Issue Date: 9/2/2020



**Test Information**

Test Method: LM-79-2019  
Report Number: P644771  
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-SR4F0-125D25U935-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: 3500K CCT, 90 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

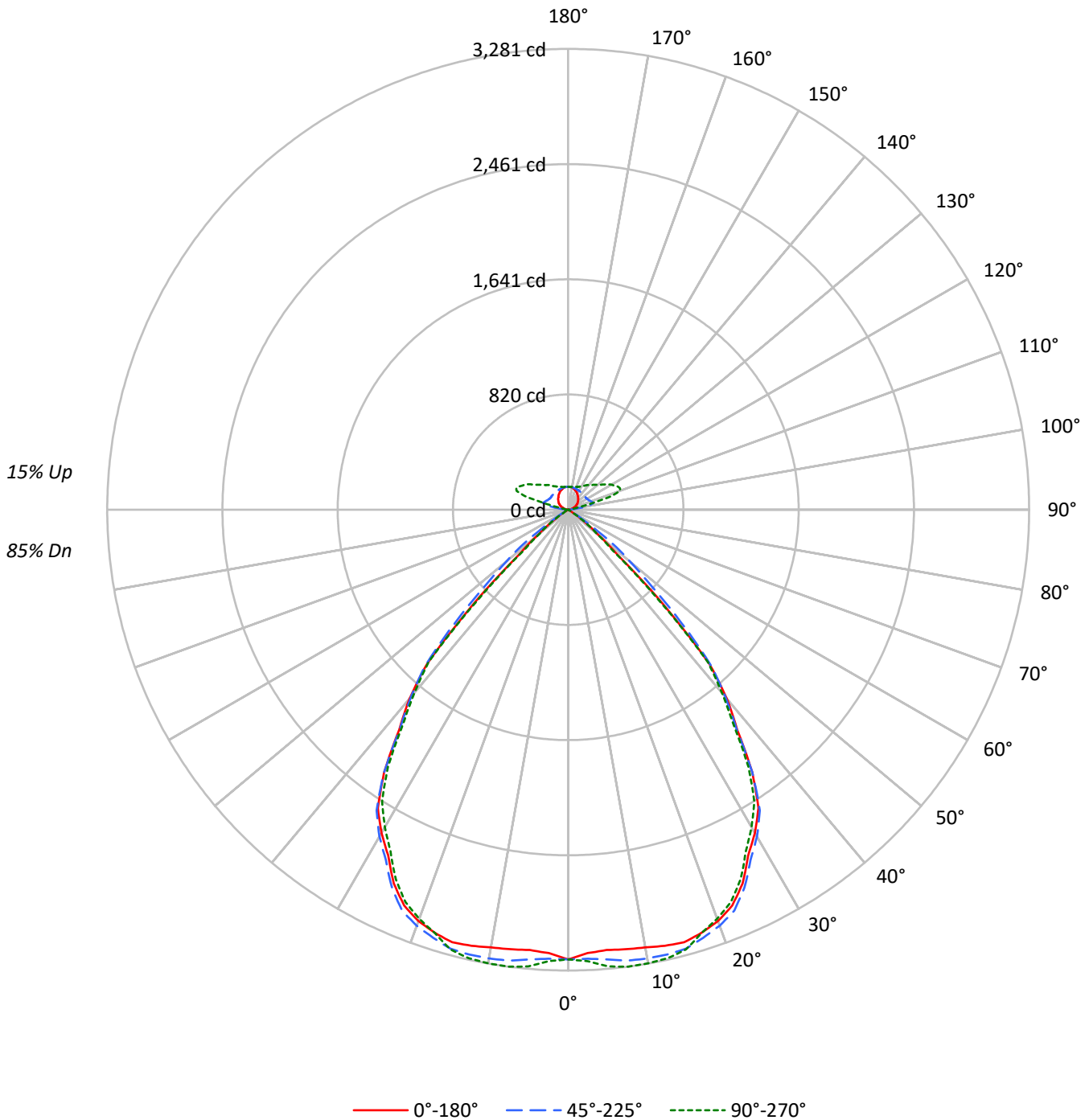
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 5797.0 lumens  
Efficiency: N/A  
Efficacy: 100.3 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<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

TEST NUMBER: P644771

CATALOG NUMBER: OMN4DIP-SR4F0-125D25U935-BBMOOB-1DUDD-WW

### Luminous Intensity Polar Plot





TEST NUMBER: P644771

CATALOG NUMBER: OMN4DIP-SR4F0-125D25U935-BBMOOB-1DUDD-WW

**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°	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



TEST NUMBER: P644771

CATALOG NUMBER: OMN4DIP-SR4F0-125D25U935-BBMOOB-1DUDD-WW

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	308.0	5.3
10°-20°	911.4	15.7
20°-30°	1348.7	23.3
30°-40°	1394.0	24.0
40°-50°	811.1	14.0
50°-60°	137.4	2.4
60°-70°	5.4	0.1
70°-80°	0.8	0.0
80°-90°	1.1	0.0
90°-100°	20.1	0.3
100°-110°	143.4	2.5
110°-120°	194.7	3.4
120°-130°	158.4	2.7
130°-140°	127.4	2.2
140°-150°	100.5	1.7
150°-160°	73.5	1.3
160°-170°	45.6	0.8
170°-180°	15.6	0.3
0°-30°	2568.0	44.3
0°-40°	3962.0	68.3
0°-60°	4910.6	84.7
0°-90°	4917.8	84.8
90°-120°	358.2	6.2
90°-150°	744.5	12.8
90°-180°	879.0	15.2
0°-180°	5797.0	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	1	2	3	3	1
95°	8	15	8	9	11	9
105°	32	49	186	238	158	34
115°	57	69	161	334	390	56
125°	81	92	151	265	313	72
135°	101	112	152	218	250	78
145°	119	130	153	190	210	75
155°	140	145	156	172	180	64
165°	155	157	161	165	168	44
175°	164	165	164	163	162	15
180°	164	164	164	164	164	



TEST NUMBER: P644771

CATALOG NUMBER: OMN4DIP-SR4F0-125D25U935-BBMOOB-1DUDD-WW

**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	2.2	0.4	0.6	0.6
90°	0.0	1.0	2.1	3.1	3.1
92.5°	2.5	3.5	4.5	6.4	7.2
95°	8.2	15.3	8.2	9.3	11.3
97.5°	14.6	29.3	60.5	17.9	15.4
100°	19.6	36.7	121.5	35.8	23.7
102.5°	24.5	42.4	164.3	94.3	51.7
105°	31.9	49.0	186.3	238.0	157.5
107.5°	39.3	52.2	177.9	346.4	324.4
110°	44.3	56.3	172.9	364.0	391.1



TEST NUMBER: P644771

CATALOG NUMBER: OMN4DIP-SR4F0-125D25U935-BBMOOB-1DUDD-WW

**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	49.2	61.3	168.0	353.7	399.4
115°	56.6	68.7	160.6	333.8	390.1
117.5°	64.2	76.1	158.7	312.2	370.1
120°	70.0	81.1	155.4	295.8	356.1
122.5°	74.1	86.0	151.3	281.7	337.2
125°	81.3	92.4	151.3	264.6	312.9
127.5°	87.3	98.6	151.5	244.8	292.5
130°	90.6	102.7	152.3	231.6	276.9
132.5°	94.7	106.8	152.3	225.7	262.9
135°	100.9	111.9	152.3	217.9	250.1
137.5°	106.0	117.9	152.3	209.4	237.0
140°	110.1	121.2	152.3	204.4	229.5
142.5°	114.3	124.5	153.2	198.6	222.1
145°	119.4	129.5	153.4	189.9	210.0
147.5°	125.6	134.4	154.6	183.6	199.1
150°	129.7	137.7	155.4	179.4	192.5
152.5°	133.8	141.1	155.4	176.1	186.7
155°	140.0	145.0	156.5	172.1	180.1
157.5°	144.9	149.8	157.7	169.6	175.4
160°	148.2	152.3	158.5	167.9	172.9
162.5°	150.7	154.7	159.3	167.0	170.5
165°	155.4	157.4	160.6	164.8	167.8
167.5°	158.1	159.9	161.6	163.7	165.5
170°	160.6	161.6	161.6	163.7	164.7
172.5°	161.4	163.2	162.4	162.9	163.9
175°	163.7	164.7	163.7	162.6	161.6
177.5°	163.7	164.5	163.7	163.6	162.8
180°	163.7	163.7	163.7	163.7	163.7

(END OF REPORT)