

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: P644770

Luminaire Tested: OMN4DIP-SR4F0-125D25U930-WBMOOB-1DUDD-WW

Issue Date: 9/2/2020



Test Information

Test Method: LM-79-2019
Report Number: P644770
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-SR4F0-125D25U930-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 - 250 LUMENS PER FOOT
Light Source: 3000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

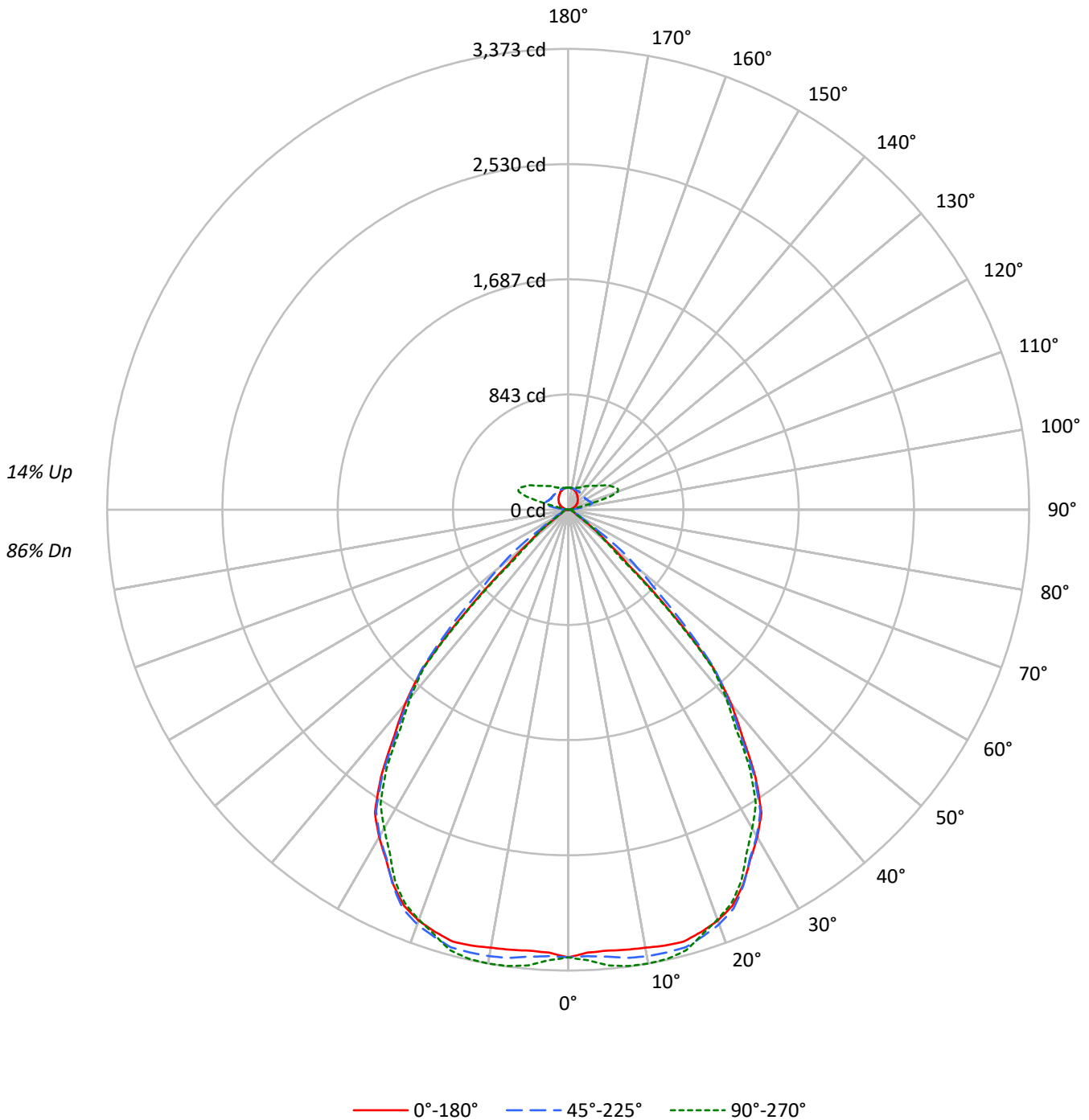
Lumens per Lamp: N/A
Luminaire Lumens: 6137.1 lumens
Efficiency: N/A
Efficacy: 106.2 lumens/watt
Spacing Criteria (0/90/45): 1.24 / 1.21 / 1.19
Luminous Opening: Rectangular (W 0.21' x L: 4' x H: 0')
CIE Type: Semi-Direct

Input Watts (W): 57.8
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	116	116	116	116	111	111	111	111	103	103	103		96	96	96		89	89	89	86
1	109	105	102	100	105	102	99	97	95	93	91		89	88	86		83	82	81	78
2	102	96	91	87	98	93	89	85	87	84	81		82	80	77		78	75	74	71
3	95	88	82	77	92	85	80	75	80	76	72		76	72	69		72	69	67	64
4	89	80	73	68	86	78	72	67	74	69	65		70	66	63		67	63	60	58
5	83	73	66	61	80	71	65	60	68	63	58		65	60	57		62	58	55	53
6	78	67	60	55	75	66	59	54	63	57	53		60	55	51		57	53	50	48
7	73	62	55	50	71	61	54	49	58	52	48		56	51	47		53	49	46	44
8	68	57	50	46	66	56	50	45	54	48	44		52	47	43		50	45	42	40
9	64	53	46	42	62	52	46	41	50	44	40		48	43	40		46	42	39	37
10	61	50	43	38	59	49	42	38	47	41	37		45	40	37		43	39	36	34

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	5.1
10°-20°	933.5	15.2
20°-30°	1386.7	22.6
30°-40°	1451.4	23.6
40°-50°	879.1	14.3
50°-60°	202.8	3.3
60°-70°	55.7	0.9
70°-80°	32.7	0.5
80°-90°	11.6	0.2
90°-100°	19.9	0.3
100°-110°	141.6	2.3
110°-120°	192.2	3.1
120°-130°	156.4	2.5
130°-140°	125.8	2.0
140°-150°	99.2	1.6
150°-160°	72.5	1.2
160°-170°	45.0	0.7
170°-180°	15.4	0.3
0°-30°	2635.7	42.9
0°-40°	4087.1	66.6
0°-60°	5169.1	84.2
0°-90°	5269.1	85.9
90°-120°	353.6	5.8
90°-150°	735.0	12.0
90°-180°	868.0	14.1
0°-180°	6137.1	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	1	2	3	3	1
95°	8	15	8	9	11	9
105°	32	48	184	235	156	33
115°	56	68	158	330	385	55
125°	80	91	149	261	309	71
135°	100	110	150	215	247	77
145°	118	128	151	187	207	74
155°	138	143	154	170	178	63
165°	154	155	158	163	166	43
175°	162	163	162	160	160	15
180°	162	162	162	162	162	

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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	6.1	4.4	4.5	2.6
90°	0.0	1.0	2.0	3.0	3.0
92.5°	2.4	3.4	4.5	6.3	7.1
95°	8.1	15.1	8.1	9.2	11.2
97.5°	14.4	28.9	59.8	17.6	15.2
100°	19.3	36.2	119.9	35.3	23.4
102.5°	24.2	41.9	162.2	93.1	51.0
105°	31.5	48.4	183.9	235.0	155.5
107.5°	38.8	51.5	175.6	342.0	320.3
110°	43.7	55.6	170.7	359.3	386.2



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	48.6	60.5	165.8	349.2	394.3
115°	55.9	67.8	158.5	329.5	385.2
117.5°	63.4	75.1	156.7	308.2	365.4
120°	69.1	80.0	153.5	292.0	351.6
122.5°	73.2	84.9	149.4	278.1	332.9
125°	80.3	91.2	149.4	261.2	308.9
127.5°	86.2	97.3	149.6	241.7	288.8
130°	89.4	101.4	150.4	228.7	273.4
132.5°	93.5	105.4	150.4	222.8	259.5
135°	99.6	110.5	150.4	215.1	246.9
137.5°	104.7	116.4	150.4	206.7	233.9
140°	108.7	119.7	150.4	201.8	226.6
142.5°	112.8	122.9	151.2	196.1	219.3
145°	117.9	127.8	151.4	187.4	207.3
147.5°	124.0	132.7	152.6	181.2	196.5
150°	128.0	136.0	153.5	177.1	190.0
152.5°	132.1	139.3	153.5	173.8	184.3
155°	138.2	143.2	154.5	169.9	177.8
157.5°	143.1	147.9	155.7	167.4	173.2
160°	146.3	150.3	156.5	165.8	170.7
162.5°	148.8	152.8	157.3	164.9	168.3
165°	153.5	155.4	158.5	162.7	165.6
167.5°	156.1	157.9	159.5	161.6	163.4
170°	158.5	159.5	159.5	161.6	162.6
172.5°	159.3	161.1	160.4	160.8	161.8
175°	161.6	162.6	161.6	160.5	159.5
177.5°	161.6	162.4	161.6	161.6	160.8
180°	161.6	161.6	161.6	161.6	161.6

(END OF REPORT)