

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: P644675

Luminaire Tested: OMN4DIP-SR4F0-125D100U930-BBMOOB-1DUDD-WW

Issue Date: 9/2/2020



Test Information

Test Method: LM-79-2019
Report Number: P644675
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-SR4F0-125D100U930-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 - 1000 LUMENS PER FOOT
Light Source: 3000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

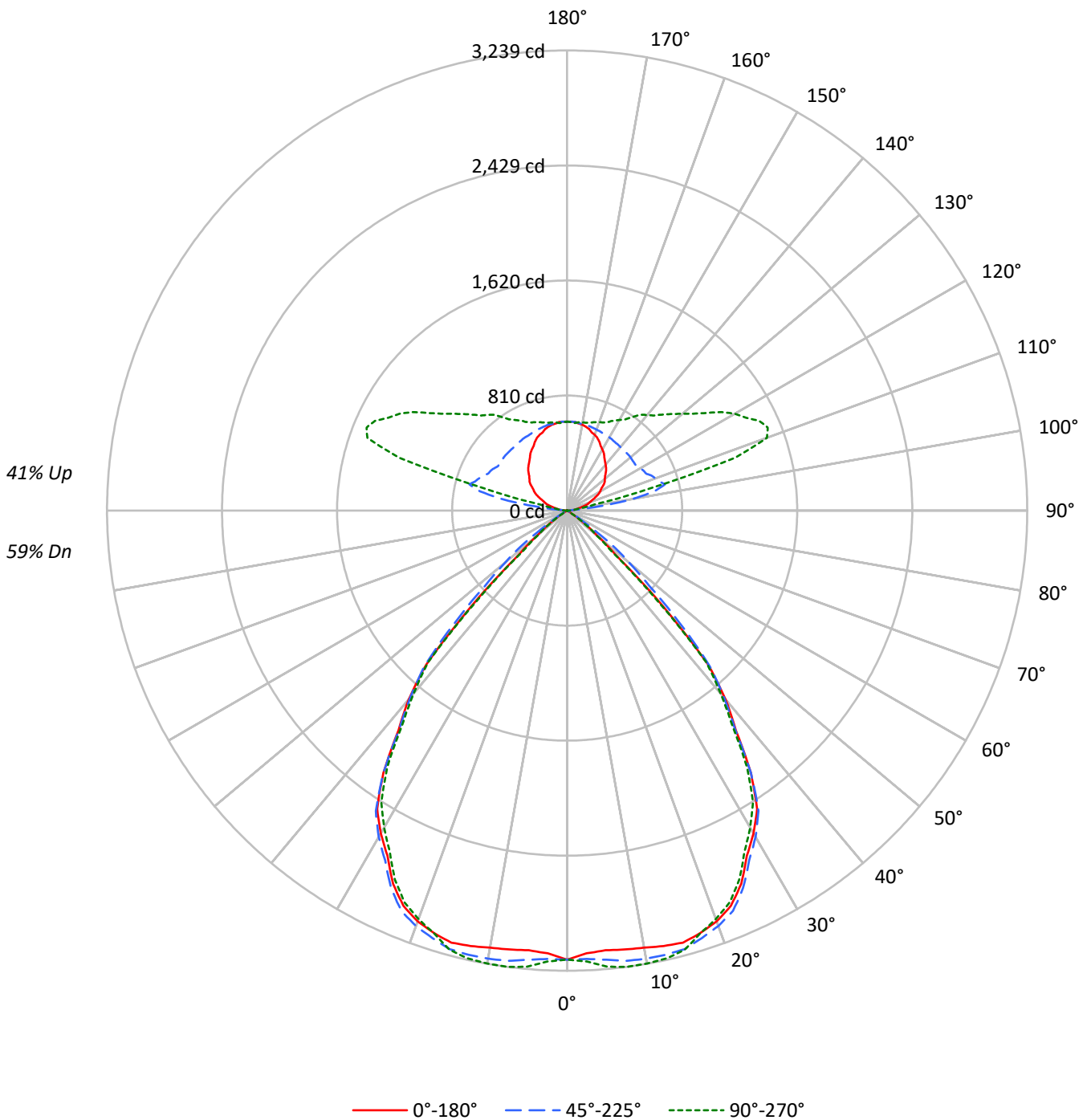
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 8219.7 lumens
Efficiency: N/A
Efficacy: 104.7 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: General Diffuse

Input Watts (W): 78.5
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									
RC	80									70									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	0													
RCR																																					
0	109	109	109	109	102	102	102	102	88	88	88	76	76	76	64	64	64	59																			
1	102	99	96	93	95	92	90	87	81	79	77	70	69	68	61	60	59	54																			
2	95	89	84	80	89	84	79	76	74	71	68	65	63	61	56	55	53	50																			
3	88	81	75	70	83	76	71	67	67	64	60	60	57	54	52	50	49	45																			
4	82	73	66	61	77	69	63	59	62	57	54	55	52	49	48	46	44	41																			
5	77	67	60	54	72	63	57	52	57	52	48	51	47	44	45	42	40	37																			
6	71	61	54	49	67	58	51	47	52	47	43	47	43	40	42	39	37	34																			
7	67	56	49	44	63	53	47	42	48	43	39	43	39	36	39	36	33	31																			
8	62	51	44	40	59	49	43	38	44	39	36	40	36	33	36	33	31	29																			
9	58	47	41	36	55	45	39	35	41	36	33	37	33	30	34	31	28	26																			
10	55	44	37	33	52	42	36	32	38	33	30	35	31	28	32	28	26	24																			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	40825	40825	40825
5°	40278	41141	41781
10°	40969	42005	42458
15°	42100	42727	42793
20°	42293	42767	42055
25°	41318	41776	40861
30°	39119	39560	38419
35°	35559	35559	34821
40°	29246	28956	28331
45°	17487	20552	16676
50°	5653	11454	5305
55°	2000	3833	2000
60°	127	1082	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: 20552 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	304.1	3.7
10°-20°	899.8	10.9
20°-30°	1331.5	16.2
30°-40°	1376.3	16.7
40°-50°	800.8	9.7
50°-60°	135.6	1.7
60°-70°	5.4	0.1
70°-80°	0.8	0.0
80°-90°	2.1	0.0
90°-100°	77.0	0.9
100°-110°	548.6	6.7
110°-120°	744.7	9.1
120°-130°	606.1	7.4
130°-140°	487.5	5.9
140°-150°	384.3	4.7
150°-160°	281.0	3.4
160°-170°	174.6	2.1
170°-180°	59.5	0.7
0°-30°	2535.3	30.8
0°-40°	3911.6	47.6
0°-60°	4848.1	59.0
0°-90°	4856.3	59.1
90°-120°	1370.3	16.7
90°-150°	2848.3	34.7
90°-180°	3363.0	40.9
0°-180°	8219.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3161	3161	3161	3161	3161	
5°	3106	3188	3173	3181	3222	298
15°	3148	3259	3195	3178	3200	886
25°	2899	2996	2931	2843	2867	1324
35°	2255	2291	2255	2199	2208	1382
45°	957	1114	1125	1087	913	740
55°	89	103	170	96	89	98
65°	2	2	2	0	0	3
75°	0	2	0	0	0	1
85°	2	2	0	0	0	1
90°	0	4	8	12	12	2
95°	32	58	32	36	43	35
105°	122	188	713	910	602	129
115°	217	263	614	1277	1492	215
125°	311	353	579	1012	1197	276
135°	386	428	583	834	957	297
145°	457	495	587	726	803	287
155°	536	555	599	658	689	246
165°	595	602	614	630	642	167
175°	626	630	626	622	618	59
180°	626	626	626	626	626	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3160.6	3160.6	3160.6	3160.6	3160.6
2.5°	3119.2	3181.0	3158.7	3161.0	3176.4
5°	3106.4	3188.4	3173.0	3181.3	3222.3
7.5°	3115.7	3198.7	3196.7	3199.1	3239.1
10°	3123.6	3210.5	3202.6	3200.9	3237.1
12.5°	3139.4	3234.0	3202.6	3198.8	3229.2
15°	3148.3	3259.3	3195.2	3178.4	3200.1
17.5°	3118.2	3241.7	3154.7	3110.0	3118.7
20°	3076.8	3202.2	3111.3	3045.0	3059.5
22.5°	3011.6	3131.3	3050.1	2968.1	2986.5
25°	2899.1	2995.6	2931.2	2842.9	2867.0
27.5°	2739.2	2815.5	2774.8	2689.2	2704.2
30°	2622.8	2685.5	2652.4	2568.7	2575.9
32.5°	2488.5	2541.6	2506.3	2434.3	2433.8
35°	2255.1	2291.3	2255.1	2198.6	2208.3
37.5°	1949.7	1977.2	1940.3	1906.4	1911.2
40°	1734.5	1756.2	1717.3	1685.1	1680.2
42.5°	1466.1	1526.4	1488.3	1444.5	1451.3
45°	957.3	1114.1	1125.1	1086.6	912.9
47.5°	482.6	653.9	783.1	594.3	425.9
50°	281.3	385.0	570.0	314.7	264.0
52.5°	184.6	228.5	398.2	198.8	175.2
55°	88.8	103.3	170.2	96.1	88.8
57.5°	30.6	47.0	75.5	48.0	34.0
60°	4.9	19.4	41.9	14.5	2.5
62.5°	3.0	5.9	26.2	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	2.7	1.6	2.4	2.4
90°	0.0	3.9	7.9	11.8	11.8
92.5°	9.5	13.3	17.3	24.5	27.6
95°	31.5	58.5	31.5	35.6	43.3
97.5°	55.9	112.1	231.5	68.3	59.1
100°	74.8	140.3	464.7	136.8	90.6
102.5°	93.7	162.3	628.5	360.9	197.7
105°	122.1	187.5	712.8	910.5	602.5
107.5°	150.4	199.7	680.5	1325.2	1241.2
110°	169.3	215.5	661.6	1392.4	1496.4



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	188.2	234.4	642.7	1353.1	1527.9
115°	216.6	262.8	614.3	1276.8	1492.5
117.5°	245.7	291.2	607.2	1194.3	1416.1
120°	267.8	310.1	594.6	1131.5	1362.5
122.5°	283.5	329.0	578.9	1077.5	1290.0
125°	311.1	353.4	578.9	1012.3	1197.1
127.5°	333.9	377.1	579.7	936.6	1119.1
130°	346.5	392.7	582.8	886.0	1059.3
132.5°	362.3	408.5	582.8	863.3	1005.7
135°	385.9	428.3	582.8	833.7	956.9
137.5°	405.6	451.0	582.8	801.0	906.5
140°	421.4	463.7	582.8	781.9	878.1
142.5°	437.1	476.4	586.0	759.7	849.8
145°	456.8	495.3	586.7	726.3	803.3
147.5°	480.4	514.3	591.5	702.3	761.6
150°	496.2	527.0	594.6	686.3	736.4
152.5°	511.9	539.6	594.6	673.5	714.3
155°	535.6	554.8	598.6	658.3	689.1
157.5°	554.5	572.9	603.3	648.7	671.0
160°	567.1	582.5	606.4	642.3	661.6
162.5°	576.5	591.9	609.6	639.0	652.1
165°	594.6	602.3	614.3	630.3	641.9
167.5°	604.9	611.8	618.2	626.3	633.2
170°	614.3	618.2	618.2	626.2	630.1
172.5°	617.5	624.4	621.4	623.1	626.9
175°	626.1	630.0	626.1	622.1	618.2
177.5°	626.1	629.2	626.1	626.1	623.0
180°	626.1	626.1	626.1	626.1	626.1

(END OF REPORT)