

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: P644705

Luminaire Tested: OMN4DIP-SR4F0-125D125U930-BBMOOB-1DUDD-WW

Issue Date: 9/2/2020



Test Information

Test Method: LM-79-2019
Report Number: P644705
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-SR4F0-125D125U930-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 - 1250 LUMENS PER FOOT
Light Source: 3000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

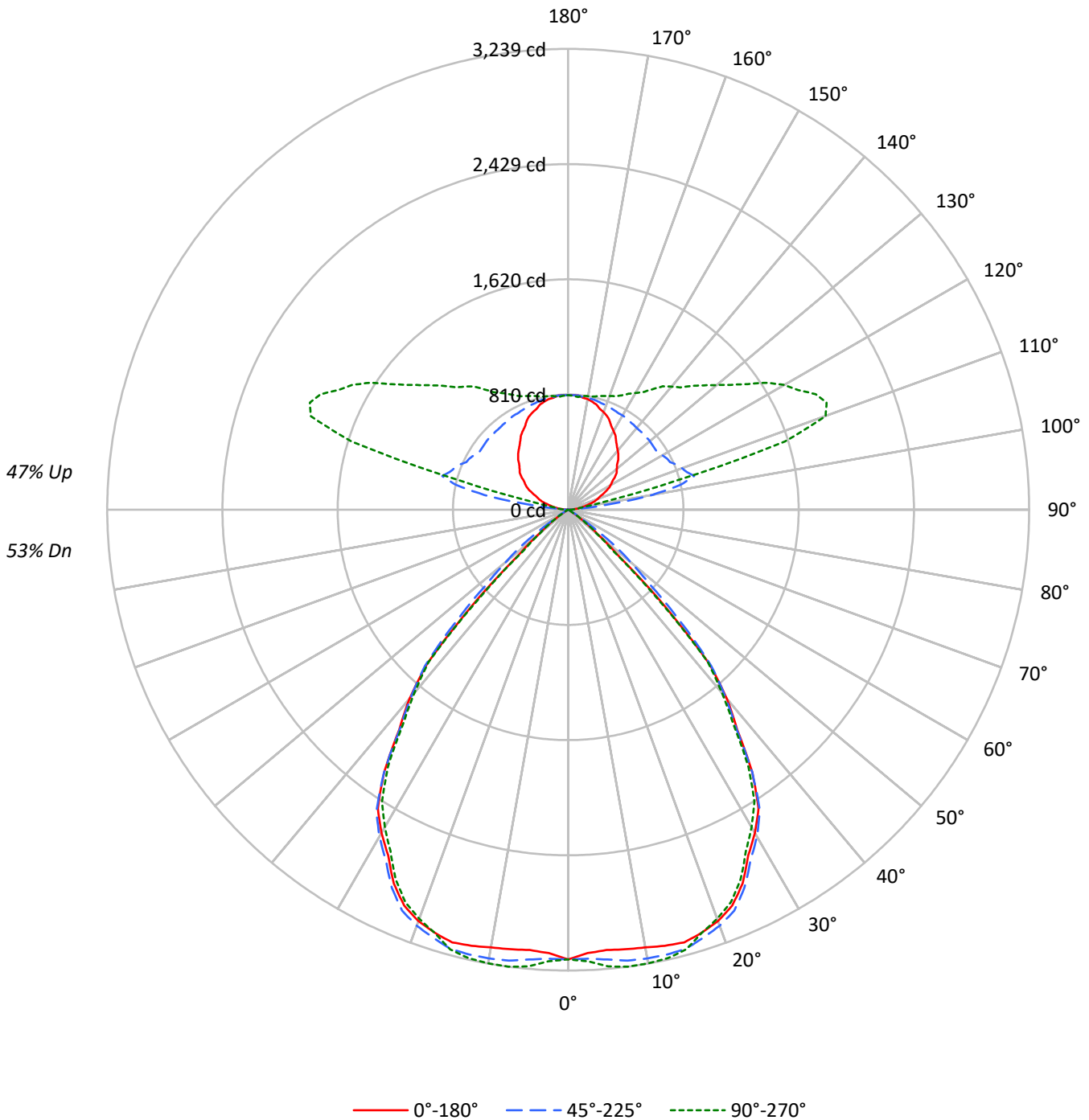
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 9182.5 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): 87.7
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	108	108	108	108	100	100	100	100	85	85	85	71	71	71	59	59	59	53				
1	100	97	94	91	93	90	88	85	78	76	74	66	65	63	55	54	54	49				
2	93	87	82	78	87	81	77	73	71	67	65	61	58	57	51	50	49	44				
3	87	79	73	68	80	74	68	64	64	60	57	56	53	51	48	46	44	40				
4	80	71	65	59	75	67	61	57	59	54	51	51	48	45	44	42	40	37				
5	75	65	58	53	70	61	55	50	54	49	45	47	44	41	41	38	36	33				
6	70	59	52	47	65	56	49	45	49	44	41	43	40	37	38	35	33	31				
7	65	54	47	42	61	51	45	40	45	41	37	40	36	34	35	32	30	28				
8	61	50	43	38	57	47	41	36	42	37	34	37	33	31	33	30	28	26				
9	57	46	39	34	53	43	37	33	39	34	31	35	31	28	31	28	26	24				
10	53	42	36	31	50	40	34	30	36	31	28	32	28	26	29	26	24	22				

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	3.3
10°-20°	899.8	9.8
20°-30°	1331.5	14.5
30°-40°	1376.3	15.0
40°-50°	800.8	8.7
50°-60°	135.6	1.5
60°-70°	5.4	0.1
70°-80°	0.8	0.0
80°-90°	2.5	0.0
90°-100°	99.0	1.1
100°-110°	705.5	7.7
110°-120°	957.8	10.4
120°-130°	779.6	8.5
130°-140°	627.0	6.8
140°-150°	494.3	5.4
150°-160°	361.4	3.9
160°-170°	224.5	2.4
170°-180°	76.6	0.8
0°-30°	2535.3	27.6
0°-40°	3911.6	42.6
0°-60°	4848.1	52.8
0°-90°	4856.7	52.9
90°-120°	1762.4	19.2
90°-150°	3663.3	39.9
90°-180°	4326.0	47.1
0°-180°	9182.5	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	5	10	15	15	2
95°	40	75	40	46	56	45
105°	157	241	917	1171	775	166
115°	279	338	790	1642	1920	277
125°	400	455	744	1302	1540	356
135°	496	551	750	1072	1231	382
145°	588	637	755	934	1033	369
155°	689	714	770	847	886	316
165°	765	775	790	811	826	215
175°	805	810	805	800	795	76
180°	805	805	805	805	805	



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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	3.0	2.0	3.0	3.0
90°	0.0	5.0	10.1	15.2	15.2
92.5°	12.2	17.1	22.3	31.5	35.5
95°	40.5	75.2	40.5	45.8	55.7
97.5°	71.9	144.2	297.8	87.9	76.0
100°	96.2	180.4	597.6	175.9	116.5
102.5°	120.5	208.7	808.3	464.2	254.2
105°	157.0	241.2	916.7	1171.1	774.9
107.5°	193.5	256.9	875.2	1704.4	1596.4
110°	217.8	277.2	850.9	1790.9	1924.6



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	242.1	301.5	826.6	1740.3	1965.1
115°	278.6	338.0	790.1	1642.2	1919.5
117.5°	316.0	374.5	781.0	1536.0	1821.3
120°	344.4	398.9	764.8	1455.3	1752.4
122.5°	364.7	423.1	744.5	1385.8	1659.2
125°	400.1	454.6	744.5	1302.0	1539.7
127.5°	429.5	485.0	745.5	1204.7	1439.4
130°	445.7	505.1	749.6	1139.6	1362.4
132.5°	466.0	525.4	749.6	1110.3	1293.5
135°	496.3	550.8	749.6	1072.3	1230.7
137.5°	521.7	580.1	749.6	1030.2	1165.9
140°	541.9	596.4	749.6	1005.6	1129.4
142.5°	562.2	612.7	753.6	977.1	1093.0
145°	587.5	637.0	754.6	934.2	1033.2
147.5°	617.9	661.5	760.7	903.3	979.5
150°	638.2	677.8	764.8	882.7	947.1
152.5°	658.4	694.1	764.8	866.2	918.7
155°	688.8	713.6	769.8	846.7	886.3
157.5°	713.1	736.9	775.9	834.3	863.0
160°	729.3	749.1	780.0	826.1	850.9
162.5°	741.5	761.3	784.0	821.9	838.7
165°	764.8	774.7	790.1	810.7	825.6
167.5°	777.9	786.9	795.2	805.5	814.4
170°	790.1	795.1	795.2	805.4	810.4
172.5°	794.2	803.1	799.2	801.4	806.3
175°	805.3	810.2	805.3	800.1	795.2
177.5°	805.3	809.3	805.3	805.2	801.2
180°	805.3	805.3	805.3	805.3	805.3

(END OF REPORT)