

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: P644861

Luminaire Tested: OMN4DIP-SR4F0-50D100U935-BBMOOB-1DUDD-WW

Issue Date: 9/2/2020



Test Information

Test Method: LM-79-2019
Report Number: P644861
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-SR4F0-50D100U935-BBMOOB-1DUDD-WW
Description: NEO-RAY CIRQUE 4-INCH DIAMETER LINEAR LED LUMINAIRE
DOWNLIGHT - BLACK BAFFLE WITH MEDIUM OPTIC - 500 LUMENS PER FOOT
UPLIGHT - BATWING OPTIC - 1000 LUMENS PER FOOT
Light Source: 3500K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

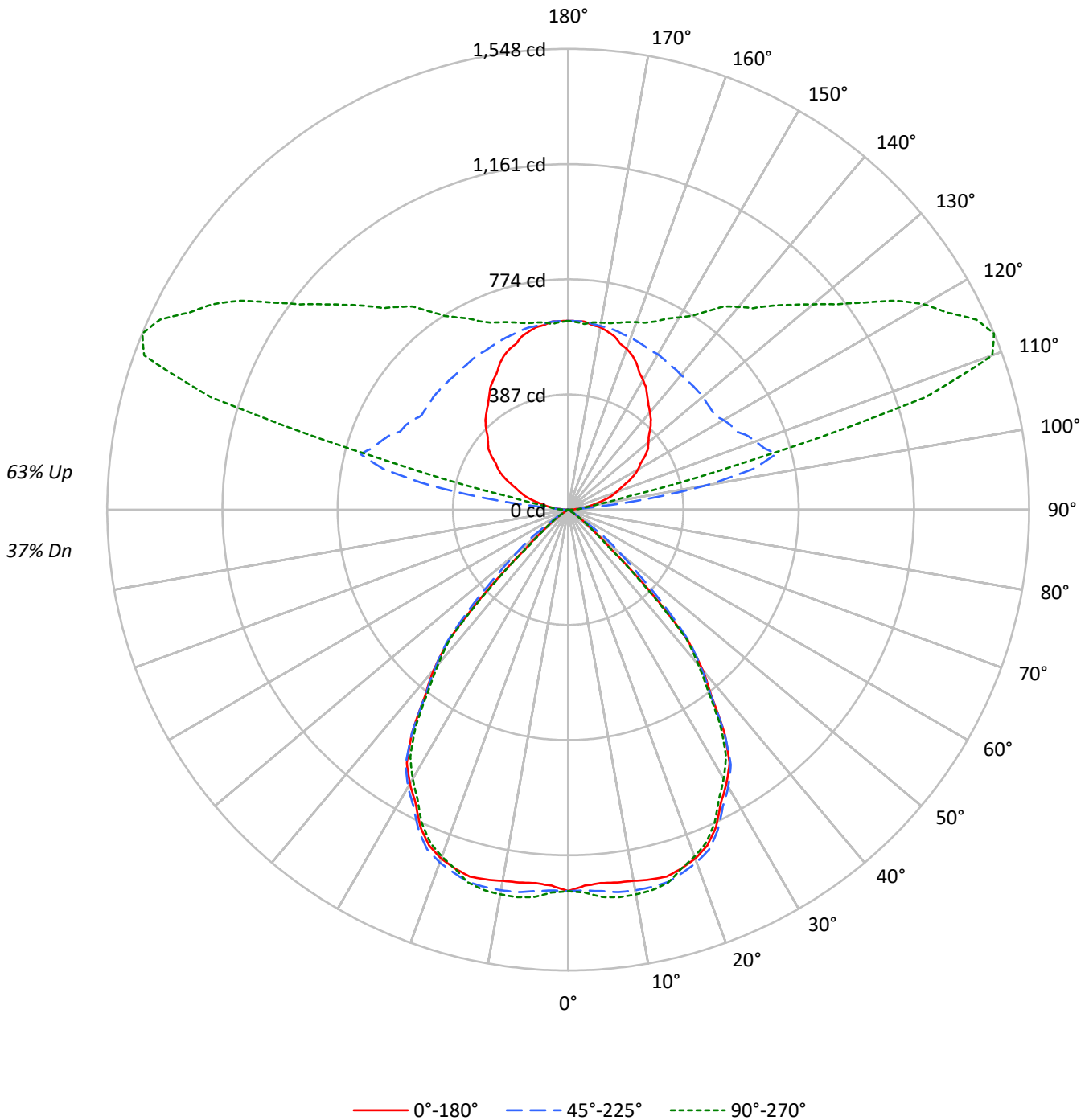
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5375.8 lumens
Efficiency: N/A
Efficacy: 113.9 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-Indirect

Input Watts (W): 47.2
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	50	30	10	0	
RCR																						
0	104	104	104	104	94	94	94	94	76	76	76	59	59	59	44	44	44	37				
1	96	93	89	86	87	84	81	79	69	67	65	54	53	52	41	40	40	34				
2	89	83	77	73	81	75	71	67	62	59	56	49	48	46	38	37	36	31				
3	82	74	68	63	74	68	62	58	56	52	49	45	43	41	35	34	32	28				
4	76	66	60	54	69	61	55	51	51	47	43	41	38	36	32	31	29	25				
5	70	60	53	48	64	55	49	44	46	42	38	38	35	32	30	28	27	23				
6	65	54	47	42	59	50	44	39	42	38	34	35	32	29	28	26	24	21				
7	60	49	42	37	55	46	40	35	39	34	31	32	29	26	26	24	22	19				
8	56	45	38	33	51	42	36	31	35	31	28	30	26	24	24	22	20	18				
9	53	41	35	30	48	38	32	28	33	28	25	27	24	22	22	20	18	16				
10	49	38	32	27	45	35	30	26	30	26	23	25	22	20	21	19	17	15				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	16546	16546	16546
5°	16324	16674	16934
10°	16605	17025	17208
15°	17063	17317	17344
20°	17141	17333	17045
25°	16746	16931	16561
30°	15855	16034	15571
35°	14412	14412	14113
40°	11854	11736	11483
45°	7088	8330	6759
50°	2291	4642	2150
55°	811	1554	811
60°	52	439	26
65°	31	31	0
70°	38	0	0
75°	0	0	0
80°	0	0	0
85°	148	0	0

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°
 Vertical Angle: 45°
 Luminance: 8330 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	123.2	2.3
10°-20°	364.7	6.8
20°-30°	539.7	10.0
30°-40°	557.8	10.4
40°-50°	324.6	6.0
50°-60°	55.0	1.0
60°-70°	2.2	0.0
70°-80°	0.3	0.0
80°-90°	1.7	0.0
90°-100°	78.0	1.5
100°-110°	555.6	10.3
110°-120°	754.3	14.0
120°-130°	613.9	11.4
130°-140°	493.8	9.2
140°-150°	389.3	7.2
150°-160°	284.7	5.3
160°-170°	176.8	3.3
170°-180°	60.3	1.1
0°-30°	1027.6	19.1
0°-40°	1585.4	29.5
0°-60°	1964.9	36.6
0°-90°	1969.1	36.6
90°-120°	1387.9	25.8
90°-150°	2884.9	53.7
90°-180°	3407.0	63.4
0°-180°	5375.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1281	1281	1281	1281	1281	
5°	1259	1292	1286	1289	1306	121
15°	1276	1321	1295	1288	1297	359
25°	1175	1214	1188	1152	1162	537
35°	914	929	914	891	895	560
45°	388	452	456	440	370	300
55°	36	42	69	39	36	40
65°	1	1	1	0	0	1
75°	0	1	0	0	0	0
85°	1	1	0	0	0	0
90°	0	4	8	12	12	1
95°	32	59	32	36	44	36
105°	124	190	722	922	610	130
115°	219	266	622	1293	1512	218
125°	315	358	586	1025	1212	280
135°	391	434	590	844	969	301
145°	463	502	594	736	814	291
155°	542	562	606	667	698	249
165°	602	610	622	638	650	169
175°	634	638	634	630	626	60
180°	634	634	634	634	634	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1281.0	1281.0	1281.0	1281.0	1281.0
2.5°	1264.2	1289.2	1280.2	1281.1	1287.4
5°	1259.0	1292.2	1286.0	1289.4	1306.0
7.5°	1262.8	1296.4	1295.6	1296.6	1312.8
10°	1266.0	1301.2	1298.0	1297.3	1312.0
12.5°	1272.4	1310.7	1298.0	1296.5	1308.8
15°	1276.0	1321.0	1295.0	1288.2	1297.0
17.5°	1263.8	1313.9	1278.6	1260.5	1264.0
20°	1247.0	1297.8	1261.0	1234.1	1240.0
22.5°	1220.6	1269.1	1236.2	1203.0	1210.4
25°	1175.0	1214.1	1188.0	1152.2	1162.0
27.5°	1110.2	1141.1	1124.6	1089.9	1096.0
30°	1063.0	1088.4	1075.0	1041.1	1044.0
32.5°	1008.6	1030.1	1015.8	986.6	986.4
35°	914.0	928.7	914.0	891.1	895.0
37.5°	790.2	801.3	786.4	772.6	774.6
40°	703.0	711.8	696.0	683.0	681.0
42.5°	594.2	618.6	603.2	585.5	588.2
45°	388.0	451.6	456.0	440.4	370.0
47.5°	195.6	265.0	317.4	240.8	172.6
50°	114.0	156.0	231.0	127.5	107.0
52.5°	74.8	92.6	161.4	80.6	71.0
55°	36.0	41.9	69.0	38.9	36.0
57.5°	12.4	19.0	30.6	19.5	13.8
60°	2.0	7.9	17.0	5.9	1.0
62.5°	1.2	2.4	10.6	1.2	0.2
65°	1.0	1.0	1.0	0.0	0.0
67.5°	1.0	1.0	0.0	0.0	0.0
70°	1.0	1.0	0.0	0.0	0.0
72.5°	1.0	1.0	0.0	0.0	0.0
75°	0.0	1.0	0.0	0.0	0.0
77.5°	0.0	1.0	0.0	0.0	0.0
80°	0.0	1.0	0.0	0.0	0.0
82.5°	0.0	1.0	0.0	0.0	0.0
85°	1.0	1.0	0.0	0.0	0.0
87.5°	0.8	1.6	1.6	2.4	2.4
90°	0.0	3.9	8.0	12.0	12.0
92.5°	9.6	13.5	17.5	24.8	27.9
95°	31.9	59.2	31.9	36.1	43.9
97.5°	56.6	113.6	234.5	69.2	59.8
100°	75.8	142.1	470.7	138.5	91.7
102.5°	94.9	164.3	636.6	365.6	200.2
105°	123.6	189.9	721.9	922.3	610.3
107.5°	152.4	202.3	689.2	1342.2	1257.2
110°	171.5	218.3	670.1	1410.4	1515.7



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	190.7	237.5	650.9	1370.5	1547.6
115°	219.4	266.2	622.2	1293.3	1511.7
117.5°	248.9	294.9	615.0	1209.7	1434.3
120°	271.2	314.1	602.3	1146.1	1380.1
122.5°	287.2	333.2	586.3	1091.4	1306.7
125°	315.1	358.0	586.3	1025.3	1212.5
127.5°	338.2	381.9	587.1	948.7	1133.6
130°	351.0	397.8	590.3	897.4	1072.9
132.5°	367.0	413.8	590.3	874.4	1018.7
135°	390.9	433.8	590.3	844.4	969.2
137.5°	410.8	456.8	590.3	811.3	918.2
140°	426.8	469.7	590.3	792.0	889.5
142.5°	442.7	482.5	593.5	769.5	860.7
145°	462.7	501.7	594.3	735.7	813.7
147.5°	486.6	520.9	599.1	711.3	771.4
150°	502.6	533.8	602.3	695.2	745.9
152.5°	518.5	546.6	602.3	682.2	723.5
155°	542.5	562.0	606.3	666.8	698.0
157.5°	561.6	580.3	611.1	657.0	679.7
160°	574.4	590.0	614.2	650.6	670.1
162.5°	583.9	599.5	617.4	647.3	660.5
165°	602.3	610.1	622.2	638.4	650.1
167.5°	612.7	619.7	626.2	634.4	641.4
170°	622.2	626.1	626.2	634.3	638.2
172.5°	625.4	632.4	629.4	631.1	635.0
175°	634.2	638.1	634.2	630.1	626.2
177.5°	634.2	637.3	634.2	634.1	631.0
180°	634.2	634.2	634.2	634.2	634.2

(END OF REPORT)