

Signify Classified - Internal
Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269



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: P645017

Luminaire Tested: OMN4DIP-SR4F0-50D75U940-BBMOOB-1DUDD-WW

Issue Date: 9/2/2020



Test Information

Test Method: LM-79-2019
Report Number: P645017
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-SR4F0-50D75U940-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 - 750 LUMENS PER FOOT
Light Source: 4000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

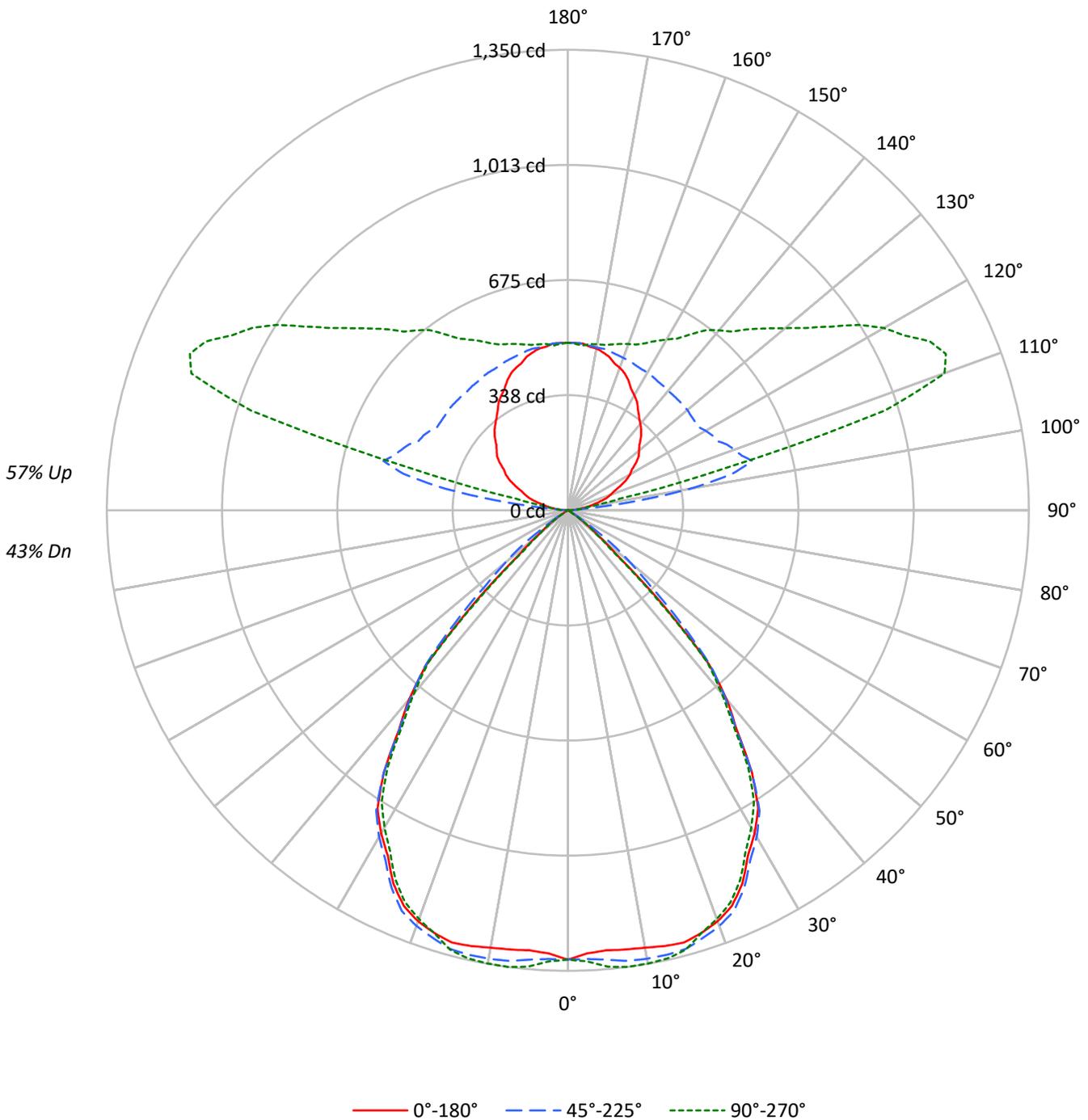
Lumens per Lamp: N/A
Luminaire Lumens: 4661.5 lumens
Efficiency: N/A
Efficacy: 119.5 lumens/watt
Spacing Criteria (0/90/45): 1.22 / 1.21 / 1.18
Luminous Opening: Rectangular (W 0.21' x L: 4' x H: 0')
CIE Type: General Diffuse

Input Watts (W): 39
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	106	106	106	106	97	97	97	97	80	80	80	64	64	64	50	50	50	43				43
1	98	94	91	88	90	87	84	82	72	70	69	59	58	57	47	46	46	40				40
2	91	85	79	75	83	78	74	70	65	62	60	54	52	50	43	42	41	36				36
3	84	76	70	65	77	70	65	61	59	56	53	49	47	45	40	39	37	33				33
4	78	68	62	56	71	63	58	53	54	50	46	45	42	40	37	35	34	30				30
5	72	62	55	50	66	58	51	47	49	45	41	42	38	36	34	32	31	27				27
6	67	56	49	44	62	52	46	42	45	40	37	38	35	32	32	30	28	25				25
7	62	51	44	39	57	48	42	37	41	37	33	35	32	29	30	27	25	23				23
8	58	47	40	35	54	44	38	34	38	33	30	33	29	27	28	25	23	21				21
9	54	43	36	32	50	41	34	30	35	31	27	30	27	24	26	23	21	19				19
10	51	40	33	29	47	37	32	28	33	28	25	28	25	22	24	22	20	18				18

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	17014	17014	17014
5°	16786	17145	17412
10°	17074	17506	17695
15°	17545	17807	17833
20°	17625	17823	17526
25°	17219	17410	17028
30°	16302	16487	16011
35°	14819	14819	14512
40°	12189	12068	11806
45°	7289	8565	6949
50°	2355	4773	2210
55°	833	1597	833
60°	54	452	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: 8565 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	126.7	2.7
10°-20°	375.0	8.0
20°-30°	554.9	11.9
30°-40°	573.6	12.3
40°-50°	333.7	7.2
50°-60°	56.5	1.2
60°-70°	2.2	0.0
70°-80°	0.3	0.0
80°-90°	1.4	0.0
90°-100°	60.4	1.3
100°-110°	430.1	9.2
110°-120°	583.9	12.5
120°-130°	475.3	10.2
130°-140°	382.3	8.2
140°-150°	301.4	6.5
150°-160°	220.3	4.7
160°-170°	136.9	2.9
170°-180°	46.7	1.0
0°-30°	1056.6	22.7
0°-40°	1630.2	35.0
0°-60°	2020.4	43.3
0°-90°	2024.3	43.4
90°-120°	1074.4	23.0
90°-150°	2233.3	47.9
90°-180°	2637.0	56.6
0°-180°	4661.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1317	1317	1317	1317	1317	
5°	1295	1329	1322	1326	1343	124
15°	1312	1358	1332	1325	1334	369
25°	1208	1248	1222	1185	1195	552
35°	940	955	940	916	920	576
45°	399	464	469	453	380	309
55°	37	43	71	40	37	41
65°	1	1	1	0	0	1
75°	0	1	0	0	0	0
85°	1	1	0	0	0	0
90°	0	3	6	9	9	1
95°	25	46	25	28	34	28
105°	96	147	559	714	472	101
115°	170	206	482	1001	1170	169
125°	244	277	454	794	939	217
135°	303	336	457	654	750	233
145°	358	388	460	570	630	225
155°	420	435	469	516	540	193
165°	466	472	482	494	503	131
175°	491	494	491	488	485	46
180°	491	491	491	491	491	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1317.2	1317.2	1317.2	1317.2	1317.2
2.5°	1299.9	1325.6	1316.4	1317.3	1323.8
5°	1294.6	1328.7	1322.3	1325.8	1342.9
7.5°	1298.5	1333.0	1332.2	1333.2	1349.9
10°	1301.8	1337.9	1334.7	1334.0	1349.1
12.5°	1308.3	1347.7	1334.7	1333.1	1345.8
15°	1312.0	1358.3	1331.6	1324.6	1333.6
17.5°	1299.5	1351.0	1314.7	1296.1	1299.7
20°	1282.2	1334.5	1296.6	1269.0	1275.0
22.5°	1255.1	1304.9	1271.1	1236.9	1244.6
25°	1208.2	1248.4	1221.6	1184.8	1194.8
27.5°	1141.6	1173.3	1156.4	1120.7	1127.0
30°	1093.0	1119.2	1105.4	1070.5	1073.5
32.5°	1037.1	1059.2	1044.5	1014.5	1014.3
35°	939.8	954.9	939.8	916.3	920.3
37.5°	812.5	824.0	808.6	794.5	796.5
40°	722.9	731.9	715.7	702.2	700.2
42.5°	611.0	636.1	620.2	602.0	604.8
45°	399.0	464.3	468.9	452.8	380.4
47.5°	201.1	272.5	326.4	247.7	177.5
50°	117.2	160.5	237.5	131.1	110.0
52.5°	76.9	95.2	166.0	82.9	73.0
55°	37.0	43.0	70.9	40.0	37.0
57.5°	12.8	19.6	31.5	20.0	14.2
60°	2.1	8.1	17.5	6.1	1.0
62.5°	1.2	2.4	10.9	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	1.4	1.2	1.9	1.9
90°	0.0	3.0	6.2	9.3	9.3
92.5°	7.4	10.4	13.6	19.2	21.6
95°	24.7	45.8	24.7	27.9	34.0
97.5°	43.8	87.9	181.6	53.6	46.3
100°	58.7	110.0	364.3	107.2	71.0
102.5°	73.5	127.2	492.8	283.0	155.0
105°	95.7	147.0	558.9	713.9	472.4
107.5°	117.9	156.6	533.5	1039.0	973.2
110°	132.8	169.0	518.7	1091.8	1173.3

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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	147.6	183.8	503.9	1060.9	1198.0
115°	169.8	206.0	481.7	1001.2	1170.2
117.5°	192.7	228.3	476.1	936.4	1110.3
120°	210.0	243.2	466.2	887.2	1068.3
122.5°	222.3	257.9	453.9	844.9	1011.5
125°	243.9	277.1	453.9	793.7	938.6
127.5°	261.8	295.6	454.5	734.4	877.5
130°	271.7	307.9	457.0	694.7	830.6
132.5°	284.1	320.3	457.0	676.9	788.6
135°	302.6	335.8	457.0	653.7	750.3
137.5°	318.0	353.7	457.0	628.1	710.8
140°	330.4	363.6	457.0	613.1	688.5
142.5°	342.7	373.5	459.4	595.7	666.3
145°	358.2	388.4	460.1	569.5	629.9
147.5°	376.7	403.3	463.8	550.7	597.2
150°	389.0	413.2	466.2	538.1	577.4
152.5°	401.4	423.1	466.2	528.1	560.1
155°	419.9	435.0	469.3	516.2	540.3
157.5°	434.7	449.2	473.0	508.6	526.1
160°	444.6	456.7	475.5	503.6	518.7
162.5°	452.0	464.1	478.0	501.0	511.3
165°	466.2	472.3	481.7	494.2	503.3
167.5°	474.3	479.7	484.8	491.1	496.5
170°	481.7	484.7	484.8	491.0	494.0
172.5°	484.1	489.6	487.2	488.5	491.6
175°	490.9	494.0	490.9	487.8	484.8
177.5°	490.9	493.4	490.9	490.9	488.5
180°	490.9	490.9	490.9	490.9	490.9

(END OF REPORT)