

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: P644957

Luminaire Tested: OMN4DIP-SR4F0-50D25U940-BBMOOB-1DUDD-WW

Issue Date: 9/2/2020



Test Information

Test Method: LM-79-2019
Report Number: P644957
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-SR4F0-50D25U940-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 - 250 LUMENS PER FOOT
Light Source: 4000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

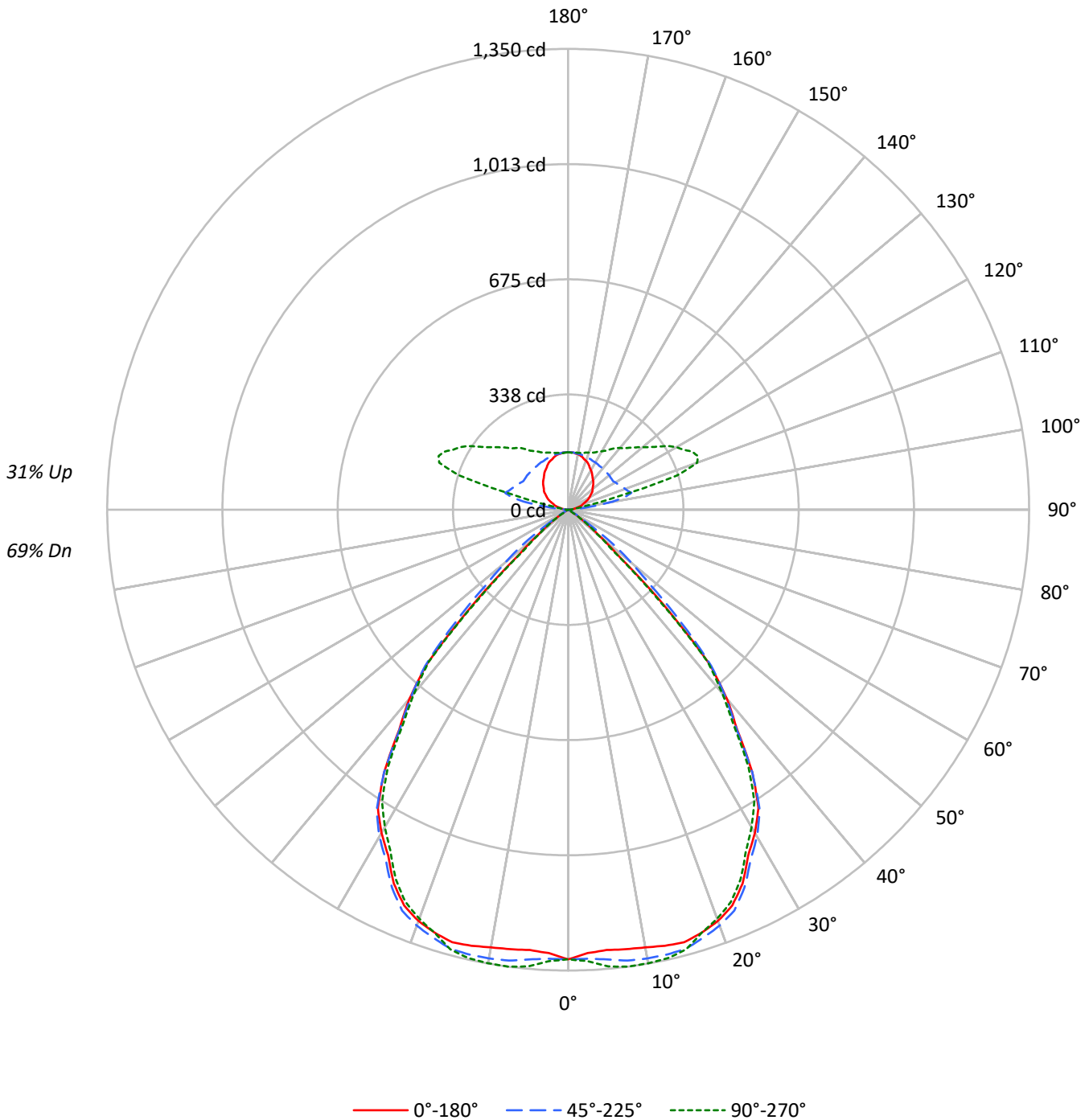
Lumens per Lamp: N/A
Luminaire Lumens: 2927.6 lumens
Efficiency: N/A
Efficacy: 110.5 lumens/watt
Spacing Criteria (0/90/45): 1.22 / 1.21 / 1.18
Luminous Opening: Rectangular (W 0.21' x L: 4' x H: 0')
CIE Type: Semi-Direct

Input Watts (W): 26.5
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

TEST NUMBER: P644957

CATALOG NUMBER: OMN4DIP-SR4F0-50D25U940-BBMOOB-1DUDD-WW

Luminous Intensity Polar Plot





TEST NUMBER: P644957

CATALOG NUMBER: OMN4DIP-SR4F0-50D25U940-BBMOOB-1DUDD-WW

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	112	112	112	112	106	106	106	106	94	94	94	83	83	83	74	74	74	69				
1	105	101	98	96	99	96	94	91	86	85	83	78	76	75	69	68	68	64				
2	98	92	87	83	93	88	83	80	79	76	73	72	69	67	65	63	61	58				
3	91	84	78	73	86	80	75	70	73	69	65	66	63	60	60	58	56	53				
4	85	76	70	65	81	73	67	62	67	62	58	61	57	55	56	53	51	48				
5	79	69	63	58	75	67	60	56	61	56	53	56	52	49	52	49	46	44				
6	74	64	57	52	70	61	55	50	57	51	48	52	48	45	48	45	42	40				
7	69	59	52	47	66	56	50	46	52	47	43	48	44	41	45	41	39	37				
8	65	54	47	42	62	52	46	41	48	43	39	45	41	37	42	38	35	34				
9	61	50	43	39	58	48	42	38	45	40	36	42	37	34	39	35	33	31				
10	57	46	40	35	55	45	39	35	42	37	33	39	35	32	36	33	30	29				

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



TEST NUMBER: P644957

CATALOG NUMBER: OMN4DIP-SR4F0-50D25U940-BBMOOB-1DUDD-WW

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	126.7	4.3
10°-20°	375.0	12.8
20°-30°	554.9	19.0
30°-40°	573.6	19.6
40°-50°	333.7	11.4
50°-60°	56.5	1.9
60°-70°	2.2	0.1
70°-80°	0.3	0.0
80°-90°	0.7	0.0
90°-100°	20.7	0.7
100°-110°	147.4	5.0
110°-120°	200.2	6.8
120°-130°	162.9	5.6
130°-140°	131.0	4.5
140°-150°	103.3	3.5
150°-160°	75.5	2.6
160°-170°	46.9	1.6
170°-180°	16.0	0.5
0°-30°	1056.6	36.1
0°-40°	1630.2	55.7
0°-60°	2020.4	69.0
0°-90°	2023.6	69.1
90°-120°	368.3	12.6
90°-150°	765.5	26.1
90°-180°	904.0	30.9
0°-180°	2927.6	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	1	2	3	3	0
95°	8	16	8	10	12	9
105°	33	50	192	245	162	35
115°	58	71	165	343	401	58
125°	84	95	156	272	322	74
135°	104	115	157	224	257	80
145°	123	133	158	195	216	77
155°	144	149	161	177	185	66
165°	160	162	165	169	172	45
175°	168	169	168	167	166	16
180°	168	168	168	168	168	



TEST NUMBER: P644957

CATALOG NUMBER: OMN4DIP-SR4F0-50D25U940-BBMOOB-1DUDD-WW

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	1.0	0.4	0.6	0.6
90°	0.0	1.0	2.1	3.2	3.2
92.5°	2.5	3.6	4.7	6.6	7.4
95°	8.5	15.7	8.5	9.6	11.6
97.5°	15.0	30.1	62.2	18.4	15.9
100°	20.1	37.7	124.9	36.8	24.3
102.5°	25.2	43.6	168.9	97.0	53.1
105°	32.8	50.4	191.6	244.7	161.9
107.5°	40.4	53.7	182.9	356.2	333.6
110°	45.5	57.9	177.8	374.3	402.2



TEST NUMBER: P644957

CATALOG NUMBER: OMN4DIP-SR4F0-50D25U940-BBMOOB-1DUDD-WW

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	50.6	63.0	172.7	363.7	410.7
115°	58.2	70.6	165.1	343.2	401.1
117.5°	66.0	78.3	163.2	321.0	380.6
120°	72.0	83.4	159.8	304.1	366.2
122.5°	76.2	88.4	155.6	289.6	346.7
125°	83.6	95.0	155.6	272.1	321.8
127.5°	89.8	101.3	155.8	251.7	300.8
130°	93.1	105.6	156.6	238.1	284.7
132.5°	97.4	109.8	156.6	232.0	270.3
135°	103.7	115.1	156.6	224.1	257.2
137.5°	109.0	121.2	156.6	215.3	243.6
140°	113.2	124.6	156.6	210.2	236.0
142.5°	117.5	128.0	157.5	204.2	228.4
145°	122.8	133.1	157.7	195.2	215.9
147.5°	129.1	138.2	159.0	188.8	204.7
150°	133.4	141.6	159.8	184.5	197.9
152.5°	137.6	145.0	159.8	181.0	192.0
155°	143.9	149.1	160.9	176.9	185.2
157.5°	149.0	154.0	162.1	174.3	180.4
160°	152.4	156.5	163.0	172.6	177.8
162.5°	155.0	159.1	163.8	171.8	175.3
165°	159.8	161.9	165.1	169.4	172.5
167.5°	162.6	164.4	166.2	168.3	170.2
170°	165.1	166.1	166.2	168.3	169.3
172.5°	166.0	167.8	167.0	167.5	168.5
175°	168.3	169.3	168.3	167.2	166.2
177.5°	168.3	169.1	168.3	168.3	167.4
180°	168.3	168.3	168.3	168.3	168.3

(END OF REPORT)