

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: P644950

Luminaire Tested: OMN4DIP-SR4F0-50D25U930-WBMOOB-1DUDD-WW

Issue Date: 9/2/2020



Test Information

Test Method: LM-79-2019
Report Number: P644950
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2203-563-26, G2-2206-689-27)
Test Lab: INNOVATION CENTER
Issue Date: 9/2/2020
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: OMN4DIP-SR4F0-50D25U930-WBMOOB-1DUDD-WW
Description: NEO-RAY CIRQUE 4-INCH DIAMETER LINEAR LED LUMINAIRE
DOWNLIGHT - WHITE BAFFLE WITH MEDIUM OPTIC - 500 LUMENS PER FOOT
UPLIGHT - BATWING OPTIC - 250 LUMENS PER FOOT
Light Source: 3000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

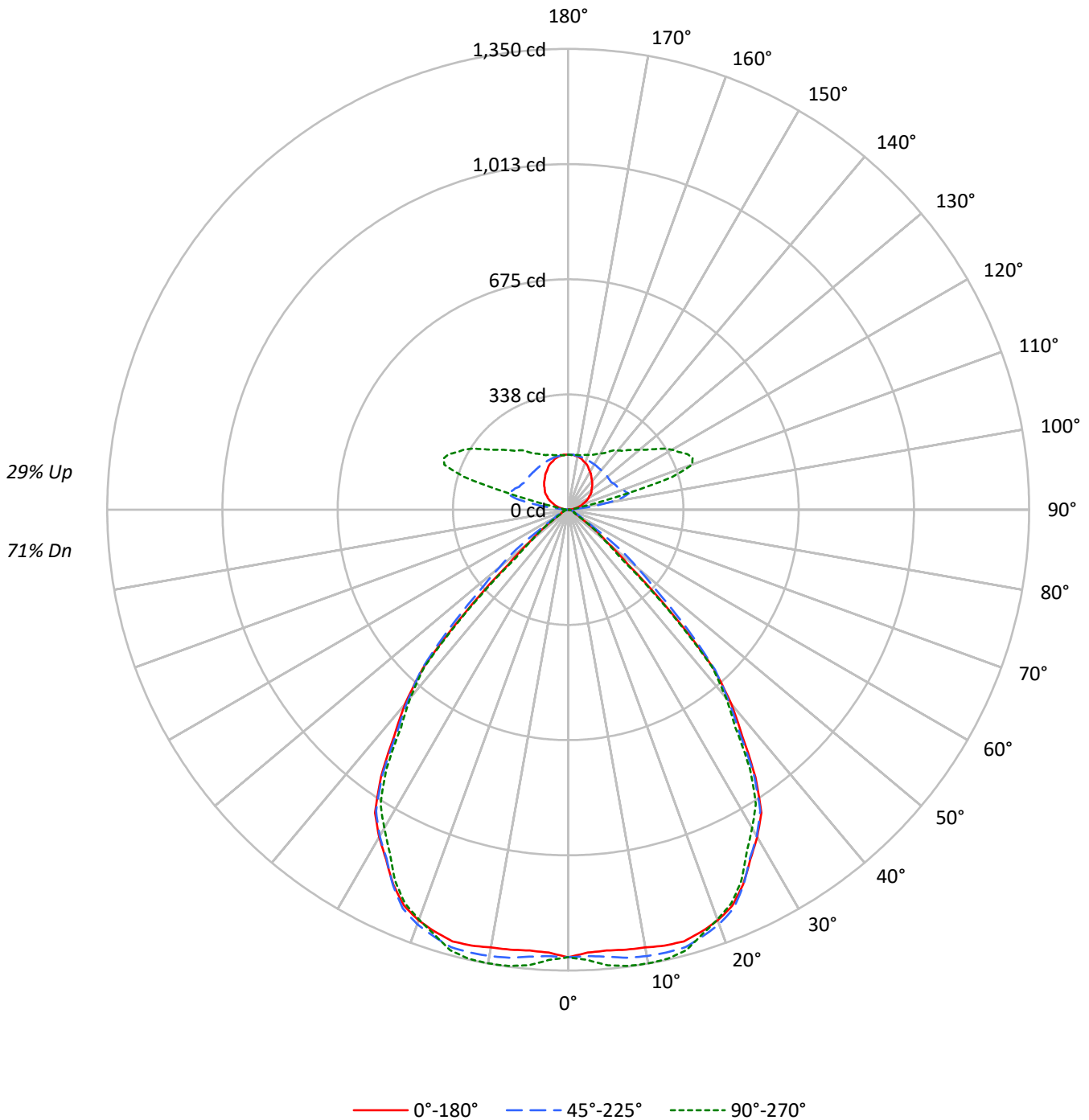
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2976.5 lumens
Efficiency: N/A
Efficacy: 112.3 lumens/watt
Spacing Criteria (0/90/45): 1.24 / 1.21 / 1.19
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

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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	112	112	112	112	106	106	106	106	95	95	95	85	85	85	75	75	75	75	75	75	71	
1	105	101	98	96	99	96	94	91	87	85	83	78	77	76	70	69	68	68	68	68	65	
2	98	92	87	83	93	88	83	79	80	76	73	72	70	67	65	64	62	62	62	62	59	
3	91	83	77	72	86	80	74	70	73	69	65	66	63	60	60	58	56	56	56	56	53	
4	85	76	69	64	81	73	67	62	67	62	58	61	57	54	56	53	51	51	51	51	48	
5	79	69	62	57	75	66	60	55	61	56	52	56	52	49	52	49	46	46	46	46	44	
6	74	63	56	51	70	61	54	50	56	51	47	52	48	44	48	45	42	42	42	42	40	
7	69	58	51	46	66	56	49	45	52	47	43	48	44	40	45	41	38	38	38	38	36	
8	65	54	47	42	62	52	45	41	48	43	39	45	40	37	42	38	35	35	35	35	33	
9	61	49	43	38	58	48	42	37	45	39	36	42	37	34	39	35	32	32	32	32	31	
10	57	46	39	35	55	44	38	34	42	36	33	39	34	31	36	33	30	30	30	30	28	

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	16935	16935	16935
5°	16808	17039	17371
10°	17080	17417	17701
15°	17506	17744	17863
20°	17601	17764	17560
25°	17265	17306	17095
30°	16506	16463	16065
35°	15070	14945	14633
40°	12518	12336	12102
45°	7864	8945	7502
50°	3016	5297	2797
55°	1423	2223	1446
60°	690	1121	612
65°	633	663	575
70°	634	634	559
75°	639	639	544
80°	662	588	513
85°	726	578	445

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°
 Vertical Angle: 45°
 Luminance: 8945 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	126.3	4.2
10°-20°	373.5	12.5
20°-30°	554.9	18.6
30°-40°	580.8	19.5
40°-50°	351.8	11.8
50°-60°	81.2	2.7
60°-70°	22.3	0.7
70°-80°	13.1	0.4
80°-90°	4.9	0.2
90°-100°	19.9	0.7
100°-110°	141.6	4.8
110°-120°	192.2	6.5
120°-130°	156.4	5.3
130°-140°	125.8	4.2
140°-150°	99.2	3.3
150°-160°	72.5	2.4
160°-170°	45.0	1.5
170°-180°	15.4	0.5
0°-30°	1054.7	35.4
0°-40°	1635.4	54.9
0°-60°	2068.3	69.5
0°-90°	2108.6	70.8
90°-120°	353.6	11.9
90°-150°	735.0	24.7
90°-180°	868.0	29.2
0°-180°	2976.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1311	1311	1311	1311	1311	
5°	1296	1326	1314	1320	1340	124
15°	1309	1349	1327	1316	1336	369
25°	1211	1247	1214	1183	1200	555
35°	956	970	948	926	928	587
45°	430	489	490	472	411	331
55°	63	72	99	68	64	66
65°	21	22	22	20	19	21
75°	13	13	13	12	11	14
85°	5	5	4	4	3	5
90°	0	1	2	3	3	1
95°	8	15	8	9	11	9
105°	32	48	184	235	156	33
115°	56	68	158	330	385	55
125°	80	91	149	261	309	71
135°	100	110	150	215	247	77
145°	118	128	151	187	207	74
155°	138	143	154	170	178	63
165°	154	155	158	163	166	43
175°	162	163	162	160	160	15
180°	162	162	162	162	162	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1311.1	1311.1	1311.1	1311.1	1311.1
2.5°	1298.5	1321.6	1308.7	1309.8	1320.6
5°	1296.3	1326.2	1314.1	1319.5	1339.7
7.5°	1299.8	1331.1	1323.9	1325.8	1348.0
10°	1302.2	1335.0	1327.9	1327.4	1349.6
12.5°	1307.7	1342.1	1328.7	1325.8	1347.2
15°	1309.1	1348.7	1326.9	1316.5	1335.8
17.5°	1296.3	1339.9	1310.5	1288.9	1304.4
20°	1280.5	1324.9	1292.3	1262.1	1277.5
22.5°	1256.0	1299.6	1264.7	1232.1	1248.3
25°	1211.4	1247.1	1214.3	1183.1	1199.5
27.5°	1154.9	1180.0	1152.0	1122.3	1131.6
30°	1106.7	1131.8	1103.8	1073.3	1077.1
32.5°	1053.0	1074.3	1046.9	1019.5	1022.6
35°	955.7	970.2	947.8	926.1	928.0
37.5°	837.2	839.1	824.0	804.2	804.6
40°	742.4	748.2	731.6	715.8	717.7
42.5°	629.5	652.3	636.0	621.8	622.2
45°	430.5	489.3	489.7	472.5	410.7
47.5°	237.7	305.9	349.7	271.2	204.8
50°	150.1	193.5	263.6	158.5	139.2
52.5°	107.4	126.9	192.5	112.1	102.1
55°	63.2	71.9	98.7	68.0	64.2
57.5°	38.5	46.0	57.7	45.5	38.7
60°	26.7	33.4	43.4	30.5	23.7
62.5°	23.5	25.6	34.0	24.2	22.1
65°	20.7	21.7	21.7	19.7	18.8
67.5°	18.4	19.3	18.4	17.4	16.4
70°	16.8	17.7	16.8	15.8	14.8
72.5°	15.2	16.2	15.2	14.2	13.2
75°	12.8	12.8	12.8	11.8	10.9
77.5°	10.5	10.5	10.3	9.5	8.5
80°	8.9	8.9	7.9	7.9	6.9
82.5°	7.3	7.3	6.3	6.3	5.3
85°	4.9	4.9	3.9	3.9	3.0
87.5°	2.4	2.6	2.0	2.2	1.4
90°	0.0	1.0	2.0	3.0	3.0
92.5°	2.4	3.4	4.5	6.3	7.1
95°	8.1	15.1	8.1	9.2	11.2
97.5°	14.4	28.9	59.8	17.6	15.2
100°	19.3	36.2	119.9	35.3	23.4
102.5°	24.2	41.9	162.2	93.1	51.0
105°	31.5	48.4	183.9	235.0	155.5
107.5°	38.8	51.5	175.6	342.0	320.3
110°	43.7	55.6	170.7	359.3	386.2



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	48.6	60.5	165.8	349.2	394.3
115°	55.9	67.8	158.5	329.5	385.2
117.5°	63.4	75.1	156.7	308.2	365.4
120°	69.1	80.0	153.5	292.0	351.6
122.5°	73.2	84.9	149.4	278.1	332.9
125°	80.3	91.2	149.4	261.2	308.9
127.5°	86.2	97.3	149.6	241.7	288.8
130°	89.4	101.4	150.4	228.7	273.4
132.5°	93.5	105.4	150.4	222.8	259.5
135°	99.6	110.5	150.4	215.1	246.9
137.5°	104.7	116.4	150.4	206.7	233.9
140°	108.7	119.7	150.4	201.8	226.6
142.5°	112.8	122.9	151.2	196.1	219.3
145°	117.9	127.8	151.4	187.4	207.3
147.5°	124.0	132.7	152.6	181.2	196.5
150°	128.0	136.0	153.5	177.1	190.0
152.5°	132.1	139.3	153.5	173.8	184.3
155°	138.2	143.2	154.5	169.9	177.8
157.5°	143.1	147.9	155.7	167.4	173.2
160°	146.3	150.3	156.5	165.8	170.7
162.5°	148.8	152.8	157.3	164.9	168.3
165°	153.5	155.4	158.5	162.7	165.6
167.5°	156.1	157.9	159.5	161.6	163.4
170°	158.5	159.5	159.5	161.6	162.6
172.5°	159.3	161.1	160.4	160.8	161.8
175°	161.6	162.6	161.6	160.5	159.5
177.5°	161.6	162.4	161.6	161.6	160.8
180°	161.6	161.6	161.6	161.6	161.6

(END OF REPORT)