

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: P644602

Luminaire Tested: OMN4DIP-SR4F0-100D25U940-WBMOOB-1DUDD-WW

Issue Date: 9/2/2020



Test Information

Test Method: LM-79-2019
Report Number: P644602
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-SR4F0-100D25U940-WBMOOB-1DUDD-WW
Description: NEO-RAY CIRQUE 4-INCH DIAMETER LINEAR LED LUMINAIRE
DOWNLIGHT - WHITE BAFFLE WITH MEDIUM OPTIC - 1000 LUMENS PER FOOT
UPLIGHT - BATWING OPTIC - 250 LUMENS PER FOOT
Light Source: 4000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

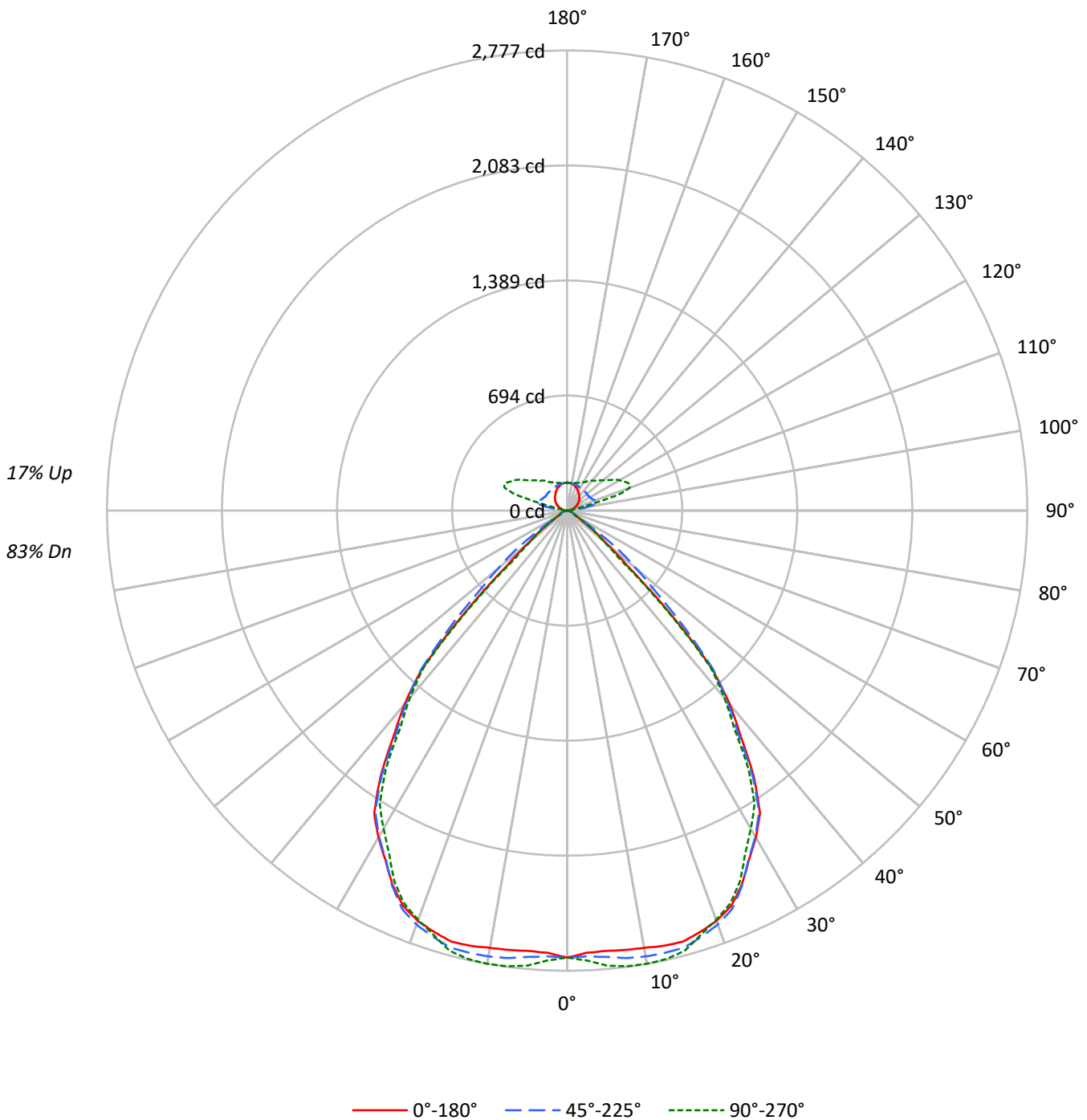
Lumens per Lamp: N/A
Luminaire Lumens: 5241.8 lumens
Efficiency: N/A
Efficacy: 113.0 lumens/watt
Spacing Criteria (0/90/45): 1.24 / 1.21 / 1.19
Luminous Opening: Rectangular (W 0.21' x L: 4' x H: 0')
CIE Type: Semi-Direct

Input Watts (W): 46.4
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: P644602

CATALOG NUMBER: OMN4DIP-SR4F0-100D25U940-WBMOOB-1DUDD-WW

Luminous Intensity Polar Plot





TEST NUMBER: P644602

CATALOG NUMBER: OMN4DIP-SR4F0-100D25U940-WBMOOB-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	115	115	115	115	110	110	110	110	102	102	102	94	94	94	86	86	86	83				
1	108	105	102	99	104	101	98	96	94	92	90	87	85	84	81	80	79	76				
2	101	95	90	86	97	92	88	84	86	82	79	80	78	75	75	73	71	68				
3	94	87	81	76	91	84	78	74	79	74	71	74	70	67	69	67	64	62				
4	88	79	72	67	85	77	71	66	72	67	63	68	64	61	64	61	58	56				
5	82	72	65	60	79	70	64	59	67	61	57	63	59	55	60	56	53	51				
6	77	66	59	54	74	65	58	53	61	56	52	58	54	50	55	51	48	46				
7	72	61	54	49	70	60	53	48	57	51	47	54	49	46	51	47	44	42				
8	68	57	50	45	65	55	49	44	53	47	43	50	45	42	48	44	41	39				
9	64	52	46	41	61	51	45	40	49	43	39	47	42	38	45	40	37	36				
10	60	49	42	38	58	48	41	37	46	40	36	44	39	35	42	38	35	33				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	34842	34842	34842
5°	34580	35054	35738
10°	35140	35833	36419
15°	36017	36505	36750
20°	36213	36547	36129
25°	35520	35607	35173
30°	33961	33870	33052
35°	31004	30748	30107
40°	25756	25378	24899
45°	16177	18404	15436
50°	6203	10897	5755
55°	2928	4574	2973
60°	1416	2310	1258
65°	1305	1366	1180
70°	1303	1303	1152
75°	1318	1318	1113
80°	1361	1205	1056
85°	1512	1200	904

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°
 Vertical Angle: 45°
 Luminance: 18404 cd/sqm



TEST NUMBER: P644602

CATALOG NUMBER: OMN4DIP-SR4F0-100D25U940-WBMOOB-1DUDD-WW

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	259.8	5.0
10°-20°	768.5	14.7
20°-30°	1141.6	21.8
30°-40°	1194.8	22.8
40°-50°	723.7	13.8
50°-60°	167.0	3.2
60°-70°	45.9	0.9
70°-80°	26.9	0.5
80°-90°	9.7	0.2
90°-100°	20.7	0.4
100°-110°	147.4	2.8
110°-120°	200.2	3.8
120°-130°	162.9	3.1
130°-140°	131.0	2.5
140°-150°	103.3	2.0
150°-160°	75.5	1.4
160°-170°	46.9	0.9
170°-180°	16.0	0.3
0°-30°	2169.9	41.4
0°-40°	3364.7	64.2
0°-60°	4255.4	81.2
0°-90°	4337.8	82.8
90°-120°	368.3	7.0
90°-150°	765.5	14.6
90°-180°	904.0	17.2
0°-180°	5241.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2697	2697	2697	2697	2697	
5°	2667	2728	2704	2715	2756	255
15°	2693	2775	2730	2708	2748	758
25°	2492	2566	2498	2434	2468	1141
35°	1966	1996	1950	1905	1909	1208
45°	886	1007	1008	972	845	680
55°	130	148	203	140	132	135
65°	43	45	45	41	39	43
75°	26	26	26	24	22	28
85°	10	10	8	8	6	10
90°	0	1	2	3	3	1
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: P644602

CATALOG NUMBER: OMN4DIP-SR4F0-100D25U940-WBMOOB-1DUDD-WW

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2697.4	2697.4	2697.4	2697.4	2697.4
2.5°	2671.4	2719.1	2692.6	2694.7	2716.9
5°	2667.0	2728.5	2703.5	2714.6	2756.3
7.5°	2674.3	2738.6	2723.8	2727.7	2773.4
10°	2679.2	2746.7	2732.0	2731.0	2776.7
12.5°	2690.5	2761.2	2733.6	2727.7	2771.8
15°	2693.4	2774.8	2729.9	2708.5	2748.2
17.5°	2667.0	2756.7	2696.2	2651.8	2683.6
20°	2634.5	2725.8	2658.8	2596.6	2628.4
22.5°	2584.1	2673.9	2602.0	2534.9	2568.3
25°	2492.3	2565.8	2498.4	2434.1	2467.9
27.5°	2376.1	2427.7	2370.0	2309.1	2328.2
30°	2277.0	2328.6	2270.9	2208.1	2216.0
32.5°	2166.5	2210.2	2153.9	2097.6	2103.9
35°	1966.2	1996.0	1950.0	1905.4	1909.3
37.5°	1722.5	1726.4	1695.2	1654.6	1655.4
40°	1527.5	1539.4	1505.1	1472.7	1476.7
42.5°	1295.1	1342.0	1308.5	1279.3	1280.1
45°	885.6	1006.8	1007.5	972.1	845.0
47.5°	489.1	629.3	719.5	557.9	421.3
50°	308.7	398.1	542.3	326.1	286.4
52.5°	221.0	261.1	396.1	230.7	210.0
55°	130.0	147.9	203.1	140.0	132.0
57.5°	79.2	94.7	118.6	93.5	79.6
60°	54.8	68.7	89.4	62.7	48.7
62.5°	48.3	52.7	69.9	49.9	45.5
65°	42.7	44.6	44.7	40.6	38.6
67.5°	37.8	39.8	37.8	35.7	33.7
70°	34.5	36.5	34.5	32.5	30.5
72.5°	31.3	33.3	31.3	29.2	27.2
75°	26.4	26.4	26.4	24.3	22.3
77.5°	21.5	21.5	21.1	19.5	17.5
80°	18.3	18.3	16.2	16.2	14.2
82.5°	15.0	15.0	13.0	13.0	11.0
85°	10.2	10.2	8.1	8.1	6.1
87.5°	4.9	5.1	3.7	3.8	2.3
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: P644602

CATALOG NUMBER: OMN4DIP-SR4F0-100D25U940-WBMOOB-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)