

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: PORTFOLIO

Report Number: P780176

Luminaire Tested: LER4D20D010-EC4DR3020359027-4LBS1B

Issue Date: 1/30/2024

Test Information

Test Method: LM-79-2019
Report Number: P780176
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2307-078-16)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 1/30/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: PORTFOLIO
Catalog Number: LER4D20D010-EC4DR3020359027-4LBS1B
Description: 4 INCH ROUND SHALLOW SPECULAR BLACK TRIM, WITH 30° OPTIC
Light Source: (1) HIGH LUMEN LED 90CRI / 2700K CCT
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1721.1 lumens
Efficiency: N/A
Efficacy: 74.5 lumens/watt
Spacing Criteria (0/90/45): 0.52 / 0.52 / 0.49
Luminous Opening: Rectangular (W 0.38' x L: 0.38' x H: 0')
CIE Type: Direct

Input Watts (W): 23.1
Input Voltage (V): NR
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



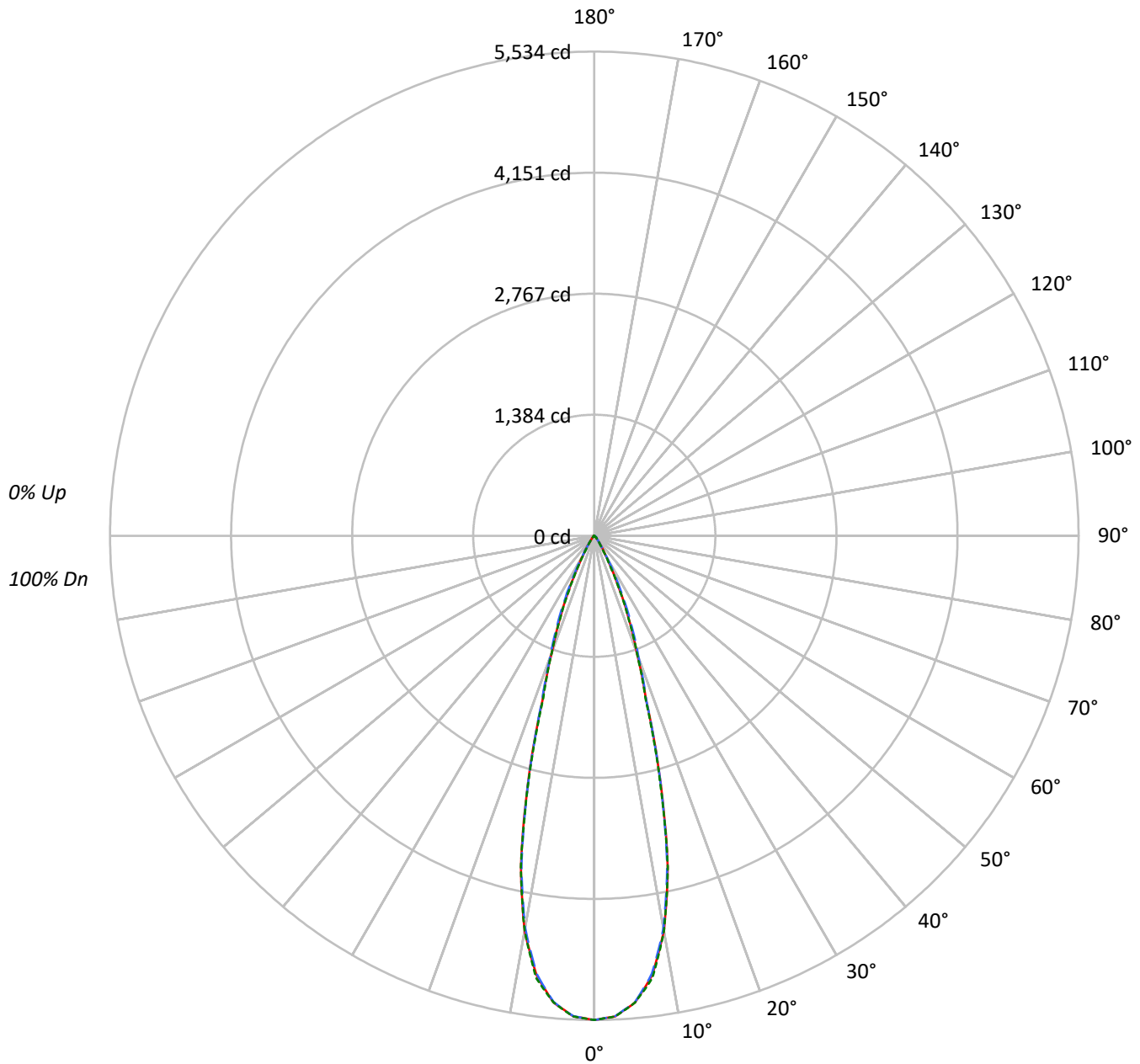
Downlight



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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
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10
RCR																	
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102
1	115	113	111	109	112	110	109	107	106	105	104	103	102	101	99	99	98
2	111	107	104	101	109	105	102	100	102	100	98	99	97	96	97	95	94
3	107	102	98	95	105	101	97	94	98	95	93	96	93	91	94	92	90
4	103	98	93	90	102	96	93	90	94	91	89	93	90	88	91	89	87
5	100	94	89	86	98	93	89	86	91	88	85	90	86	84	88	86	83
6	97	90	85	82	95	89	85	82	88	84	81	87	83	81	85	83	80
7	94	87	82	79	92	86	82	79	85	81	78	84	81	78	83	80	78
8	91	84	79	76	90	83	79	76	82	78	76	81	78	75	80	77	75
9	88	81	76	73	87	80	76	73	80	76	73	79	75	73	78	75	73
10	85	78	74	71	85	78	74	71	77	73	71	76	73	71	76	73	70

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	423606	423606	423606
5°	411448	410964	411463
10°	356373	353863	356288
15°	232516	231264	230107
20°	115618	119960	115464
25°	58241	65673	57050
30°	23316	25402	20320
35°	10811	10363	8681
40°	4676	5186	4396
45°	3291	4092	3323
50°	1131	2977	1191
55°	654	1228	694
60°	459	551	459
65°	290	290	290
70°	179	112	179
75°	0	89	0
80°	0	0	0
85°	0	0	0

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 22.5°

Vertical Angle: 45°

Luminance: 4092 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	486.6	28.3
10°-20°	783.7	45.5
20°-30°	338.7	19.7
30°-40°	77.2	4.5
40°-50°	26.5	1.5
50°-60°	6.5	0.4
60°-70°	1.7	0.1
70°-80°	0.2	0.0
80°-90°	0.0	0.0
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	1609.1	93.5
0°-40°	1686.3	98.0
0°-60°	1719.3	99.9
0°-90°	1721.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1721.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	5534	5534	5534	5534	5534	
5°	5355	5350	5349	5360	5355	487
15°	2934	2899	2918	2909	2904	786
25°	690	716	778	698	676	330
35°	116	118	111	110	93	78
45°	30	38	38	38	31	22
55°	5	5	9	5	5	5
65°	2	2	2	2	2	2
75°	0	0	0	0	0	0
85°	0	0	0	0	0	0
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	5534.2	5534.2	5534.2	5534.2	5534.2
2.5°	5497.5	5493.7	5495.9	5498.6	5499.7
5°	5354.9	5349.7	5348.6	5359.7	5355.1
7.5°	5067.1	5059.8	5048.6	5073.9	5097.5
10°	4585.1	4577.0	4552.8	4564.7	4584.0
12.5°	3873.5	3847.1	3846.6	3884.6	3879.4
15°	2934.2	2898.8	2918.4	2908.9	2903.8
17.5°	1973.1	1959.5	1985.7	1977.8	1943.8
20°	1419.4	1422.9	1472.7	1447.7	1417.5
22.5°	1035.8	1048.5	1107.5	1043.1	1019.5
25°	689.6	715.7	777.6	697.5	675.5
27.5°	424.2	436.1	498.9	418.7	406.7
30°	263.8	257.8	287.4	246.7	229.9
32.5°	173.1	165.5	175.0	157.0	143.5
35°	115.7	118.2	110.9	110.1	92.9
37.5°	72.2	83.1	73.3	78.3	59.8
40°	46.8	60.3	51.9	57.4	44.0
42.5°	38.3	46.5	42.7	45.4	39.1
45°	30.4	37.8	37.8	37.8	30.7
47.5°	16.8	25.3	32.3	25.8	17.9
50°	9.5	12.8	25.0	13.3	10.0
52.5°	6.5	7.3	17.1	7.6	6.8
55°	4.9	5.2	9.2	5.4	5.2
57.5°	3.8	4.1	4.9	4.1	3.8
60°	3.0	3.0	3.6	3.3	3.0
62.5°	2.2	2.2	2.5	2.2	2.2
65°	1.6	1.6	1.6	1.6	1.6
67.5°	0.8	1.1	1.1	1.1	1.1
70°	0.8	0.5	0.5	0.5	0.8
72.5°	0.5	0.3	0.3	0.3	0.3
75°	0.0	0.0	0.3	0.0	0.0
77.5°	0.0	0.0	0.0	0.0	0.0
80°	0.0	0.0	0.0	0.0	0.0
82.5°	0.0	0.0	0.0	0.0	0.0
85°	0.0	0.0	0.0	0.0	0.0
87.5°	0.0	0.0	0.0	0.0	0.0
90°	0.0	0.0	0.0	0.0	0.0



Report Generated By 670245859 / DESKTOP-T8S5UU9





— 0°-180° - - 45°-225° - - - 90°-270°







(END OF REPORT)