

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: P1326022

Luminaire Tested: LDSQA3D09R20W2N902765DE010 3LSQCA45R 1MMS_3000K

Issue Date: 1/29/2026

Test Information

Test Method: LM-79-2019
Report Number: P1326022
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2510-583-74)
Test Lab: INNOVATION CENTER
Issue Date: 1/29/2026
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: PORTFOLIO
Catalog Number: LDSQA3D09R20W2N902765DE010 3LSQCA45R 1MMS_3000K
Description: 3in Adjustable Tunable White LED luminaire with, R20 optic, 3000K CCT AND, 90CRI ,
3LSQCA45R 1MMS TRIM
Light Source: -
Ballast/Driver: -

Summary

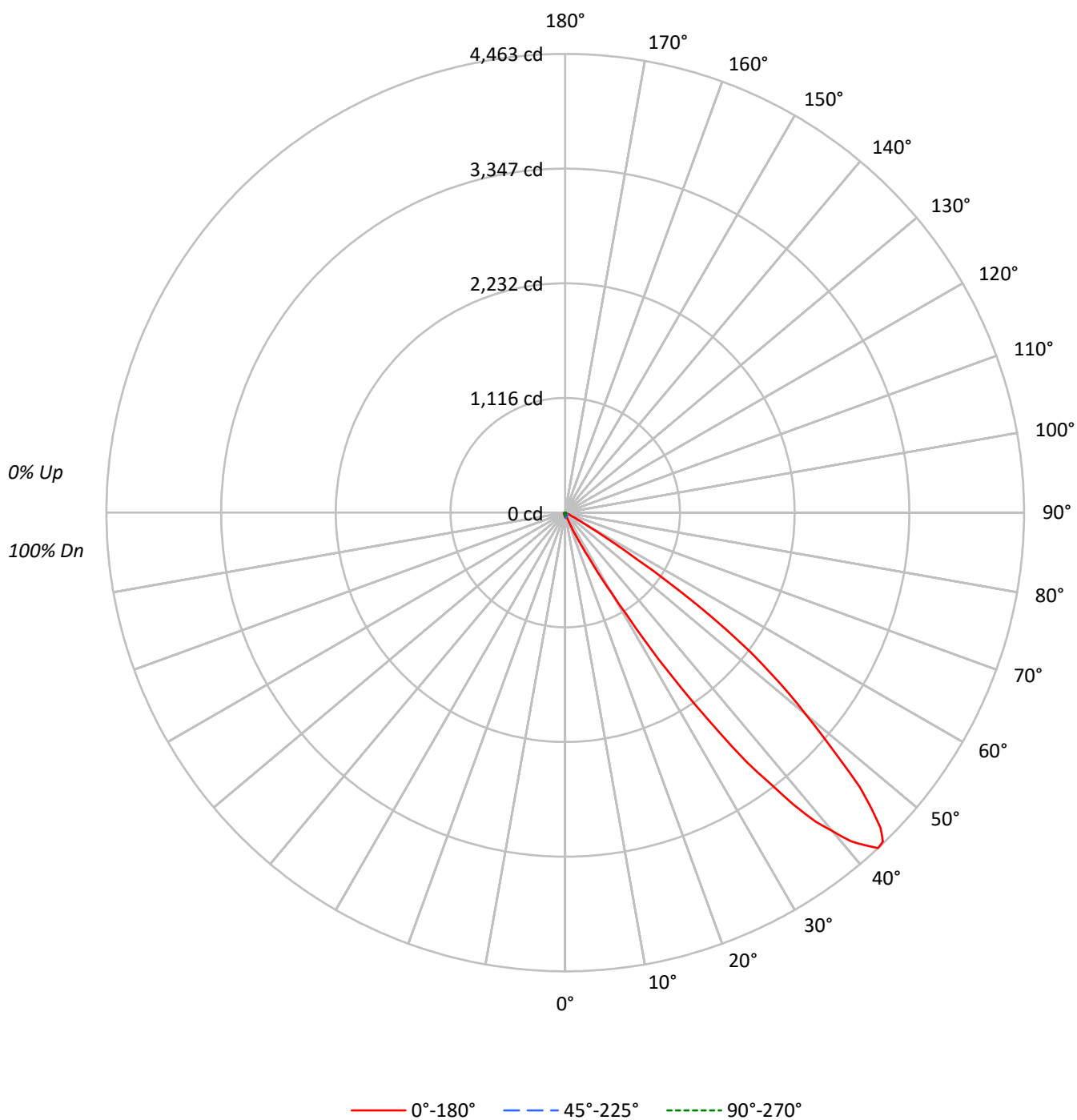
Lumens per Lamp: N/A
Luminaire Lumens: 620.0 lumens
Efficiency: N/A
Efficacy: 68.9 lumens/watt
Spacing Criteria (0/90/45): 3.39 / 0.51 / 1.13
Luminous Opening: Rectangular (W 0.25' x L: 0.25' x H: 0')
CIE Type: Direct

Input Watts (W): 9
Input Voltage (V): NR
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	0
RCR																				
0	119	119	119	119	116	116	116	116	111	111	111		106	106	106		102	102	102	100
1	110	106	102	99	108	104	101	97	100	97	94		96	94	92		92	91	89	87
2	101	93	87	82	98	91	86	81	88	83	79		85	81	77		82	78	75	73
3	92	81	74	67	89	80	73	67	77	71	66		74	69	65		72	67	63	61
4	83	71	62	56	81	70	62	55	67	60	55		65	59	54		63	58	53	51
5	75	62	53	46	73	61	53	46	59	51	46		57	50	45		55	49	45	42
6	68	55	45	39	66	54	45	38	52	44	38		50	43	38		48	42	37	35
7	62	48	39	32	60	47	38	32	46	38	32		44	37	32		43	36	31	29
8	57	42	33	27	55	42	33	27	40	33	27		39	32	27		38	31	27	25
9	52	38	29	23	51	37	29	23	36	28	23		35	28	23		34	27	23	21
10	48	34	25	20	47	33	25	20	32	25	19		31	24	19		30	24	19	17

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°	135°	180°
0°	7423	7423	7423	7423	7423
5°	8661	8056	6950	6051	5843
10°	8552	7345	5509	4687	4582
15°	7489	5616	4047	3744	3940
20°	11106	4692	2987	3207	3519
25°	47830	4865	2318	2869	3439
30°	180868	5906	1969	2784	3361
35°	548319	7106	1829	2817	3553
40°	909220	7082	1574	3013	3799
45°	1056805	4822	1413	3118	4116
50°	820351	2653	1393	3269	4689
55°	474803	1742	1411	3663	5074
60°	80290	413	1206	3823	5614
65°	6153	0	1426	4279	6398
70°	856	0	1762	4683	7352
75°	799	399	1930	5456	8517
80°	595	595	2876	5752	9819
85°	1186	1186	4545	5730	10275

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 1056805 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	3.7	0.6
10°-20°	7.8	1.3
20°-30°	24.8	4.0
30°-40°	158.1	25.5
40°-50°	289.4	46.7
50°-60°	118.9	19.2
60°-70°	10.0	1.6
70°-80°	5.0	0.8
80°-90°	2.3	0.4
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°	36.2	5.8
0°-40°	194.3	31.3
0°-60°	602.6	97.2
0°-90°	620.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	620.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	43	43	43	43	43	
5°	50	47	40	35	34	5
15°	42	32	23	21	22	13
25°	252	26	12	15	18	166
35°	2608	34	9	13	17	1651
45°	4339	20	6	13	17	3115
55°	1581	6	5	12	17	1382
65°	15	0	4	10	16	49
75°	1	1	3	8	13	1
85°	1	1	2	3	5	0
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	2.5°	5°	7.5°	10°	12.5°	15°	17.5°	20°	22.5°	45°
0°	43.1	43.1	43.1	43.1	43.1	43.1	43.1	43.1	43.1	43.1	43.1
2.5°	47.2	47.2	47.2	46.6	46.6	47.2	46.6	46.6	46.6	46.6	46.0
5°	50.1	50.1	50.1	50.1	50.1	50.1	50.1	49.5	49.5	48.9	46.6
7.5°	51.3	51.3	51.3	51.3	50.7	50.7	50.7	50.7	50.1	49.5	45.4
10°	48.9	48.9	48.9	48.4	48.4	48.4	47.8	47.8	47.2	46.6	42.0
12.5°	44.3	44.3	44.3	44.3	43.7	43.7	43.1	43.1	42.5	42.0	36.7
15°	42.0	42.0	42.0	41.4	41.4	40.8	40.2	39.6	39.0	37.9	31.5
17.5°	45.4	45.4	44.9	44.9	43.7	42.5	42.0	40.2	39.0	37.3	28.0
20°	60.6	61.2	58.8	57.1	55.9	52.4	50.7	47.8	45.4	42.5	25.6
22.5°	122.4	120.0	115.9	109.5	102.0	95.6	83.9	74.6	68.2	59.4	25.1
25°	251.7	249.4	238.3	229.0	205.7	187.6	162.6	142.2	121.2	100.8	25.6
27.5°	478.4	462.6	459.7	417.2	384.6	337.9	289.6	248.8	211.5	170.1	27.4
30°	909.5	891.5	828.0	763.9	675.9	576.2	481.3	392.7	318.7	251.7	29.7
31°	1154.2	1171.7	1097.1	968.4	838.4	710.8	580.9	468.5	372.9	289.6	30.9
32°	1517.2	1440.9	1362.2	1230.0	1041.2	878.1	714.9	552.9	427.1	330.4	32.0
33°	1860.4	1815.6	1695.5	1530.6	1304.0	1075.0	863.5	652.6	493.5	379.9	32.6
34°	2226.3	2176.8	2079.5	1842.9	1594.1	1294.1	1012.1	767.4	572.7	428.3	33.2
35°	2608.0	2587.0	2399.4	2194.3	1888.4	1526.6	1190.9	893.2	650.2	472.5	33.8
36°	2991.9	2924.3	2777.5	2478.0	2158.7	1741.6	1378.6	1010.3	728.9	525.0	33.8
37°	3280.9	3265.8	3071.2	2779.3	2404.0	1971.1	1540.5	1140.3	808.1	569.8	33.8
38°	3599.6	3539.6	3342.1	3045.0	2634.8	2181.5	1710.1	1253.3	883.3	610.6	33.2
39°	3868.2	3779.1	3579.8	3286.2	2836.4	2341.1	1844.7	1362.8	949.7	644.4	32.6
40°	4044.2	3982.4	3774.4	3444.1	3019.3	2492.0	1981.0	1453.1	999.3	670.1	31.5
41°	4238.2	4135.7	3930.0	3597.9	3152.2	2624.9	2066.7	1512.6	1037.7	686.9	30.3
42°	4354.2	4270.3	4026.1	3701.0	3247.1	2700.6	2136.6	1558.0	1061.0	695.7	28.0
43°	4462.6	4348.4	4110.6	3761.0	3310.1	2754.2	2168.6	1579.0	1066.3	695.7	25.1
44°	4448.0	4339.6	4093.1	3769.2	3324.0	2769.9	2182.0	1579.6	1058.1	686.9	22.1
45°	4339.0	4231.2	4009.2	3698.1	3273.9	2739.1	2155.2	1556.3	1035.4	671.8	19.8
46°	4139.2	4032.0	3861.8	3579.2	3180.7	2669.1	2092.9	1505.6	997.5	647.3	17.5
47°	3921.8	3817.6	3643.3	3387.6	3021.6	2544.5	2002.6	1434.5	944.5	611.8	15.7
48°	3606.6	3541.4	3366.6	3148.1	2800.8	2349.3	1844.1	1318.5	873.4	565.8	13.4
49°	3328.1	3259.4	3106.1	2871.3	2513.0	2122.0	1654.7	1177.5	780.8	514.5	11.7
50°	3061.8	3001.8	2860.3	2595.1	2253.1	1847.6	1399.0	999.8	664.2	451.0	9.9
51°	2801.4	2756.5	2612.0	2368.5	2021.2	1636.7	1211.9	832.6	548.9	374.1	9.3
52°	2539.8	2534.5	2377.8	2131.4	1795.7	1426.3	1030.1	702.7	465.5	314.1	8.7
53°	2258.4	2224.6	2087.7	1866.2	1544.0	1207.3	873.4	592.6	400.9	267.4	7.6
54°	1937.9	1900.0	1753.2	1553.4	1261.4	988.8	703.8	478.9	333.9	226.1	7.0
55°	1581.3	1516.6	1410.0	1204.9	985.3	754.5	543.6	379.3	266.9	188.2	5.8
56°	1199.7	1135.0	1075.0	924.1	723.1	562.8	404.9	290.7	208.6	148.6	5.2
57°	834.4	830.9	732.4	616.4	483.6	383.4	277.3	205.1	147.4	115.4	4.1
58°	541.3	523.2	460.3	393.3	316.4	239.5	178.3	139.3	100.2	78.7	3.5
59°	379.3	343.2	309.4	262.2	199.3	150.9	114.8	89.1	69.3	54.8	2.3
60°	233.1	225.5	202.8	159.6	129.3	106.6	85.7	65.8	50.7	39.0	1.2
62.5°	66.4	67.6	61.2	54.2	46.6	40.2	36.1	30.9	25.6	20.4	0.0
65°	15.1	14.6	15.7	14.6	13.4	13.4	11.7	10.5	9.3	8.7	0.0



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CANDELA DISTRIBUTION (continued):

	0°	2.5°	5°	7.5°	10°	12.5°	15°	17.5°	20°	22.5°	45°
67.5°	4.7	4.7	4.1	4.1	4.1	3.5	3.5	2.9	2.9	2.3	0.0
70°	1.7	1.7	1.7	1.7	1.7	1.2	1.2	1.2	0.6	0.6	0.0
72.5°	1.7	1.7	1.7	1.2	1.2	1.2	1.2	1.2	0.6	0.6	0.6
75°	1.2	1.2	1.2	1.2	1.2	1.2	1.2	0.6	0.6	0.6	0.6
77.5°	1.2	1.2	1.2	1.2	1.2	0.6	1.2	0.6	0.6	0.6	0.6
80°	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
82.5°	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
85°	0.6	0.6	0.6	0.6	0.0	0.0	0.6	0.6	0.6	0.0	0.6
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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CANDELA DISTRIBUTION (continued):

	67.5°	90°	112.5°	135°	157.5°	180°
0°	43.1	43.1	43.1	43.1	43.1	43.1
2.5°	44.9	42.5	40.8	39.0	38.5	38.5
5°	43.7	40.2	36.7	35.0	33.8	33.8
7.5°	40.2	36.1	32.6	30.9	30.3	30.3
10°	36.1	31.5	28.0	26.8	26.8	26.2
12.5°	31.5	26.8	24.5	23.9	23.9	23.9
15°	26.2	22.7	21.0	21.0	21.6	22.1
17.5°	22.1	18.6	18.1	19.2	20.4	20.4
20°	18.6	16.3	16.3	17.5	18.6	19.2
22.5°	15.7	14.0	14.6	16.3	18.1	18.6
25°	14.0	12.2	13.4	15.1	16.9	18.1
27.5°	11.7	11.1	12.2	14.6	16.9	17.5
30°	9.9	9.9	11.7	14.0	16.3	16.9
31°	9.3	9.3	11.7	14.0	16.3	16.9
32°	8.7	9.3	11.1	14.0	16.3	16.9
33°	8.2	8.7	11.1	13.4	16.3	16.9
34°	7.6	8.7	11.1	13.4	16.3	16.9
35°	7.0	8.7	11.1	13.4	16.3	16.9
36°	6.4	8.2	10.5	13.4	16.3	16.9
37°	5.8	8.2	10.5	13.4	16.3	16.9
38°	5.2	7.6	10.5	13.4	16.3	16.9
39°	5.2	7.6	9.9	13.4	15.7	16.9
40°	4.7	7.0	9.9	13.4	15.7	16.9
41°	4.1	7.0	9.9	12.8	15.7	16.9
42°	3.5	6.4	9.3	12.8	15.7	16.9
43°	2.9	6.4	9.3	12.8	15.7	16.9
44°	2.9	5.8	9.3	12.8	15.7	16.9
45°	2.3	5.8	9.3	12.8	15.7	16.9
46°	1.7	5.8	9.3	12.8	15.7	16.9
47°	1.7	5.2	8.7	12.8	15.7	16.9
48°	1.2	5.2	8.7	12.8	15.7	16.9
49°	1.2	5.2	8.7	12.8	15.7	17.5
50°	1.2	5.2	8.7	12.2	15.7	17.5
51°	0.6	5.2	8.7	12.2	15.7	17.5
52°	0.6	5.2	8.2	12.2	16.3	17.5
53°	0.6	4.7	8.2	12.2	16.3	17.5
54°	0.6	4.7	8.2	12.2	16.3	16.9
55°	0.6	4.7	8.2	12.2	15.7	16.9
56°	0.6	4.1	8.2	12.2	15.7	16.9
57°	0.6	4.1	7.6	11.7	15.7	16.3
58°	0.6	4.1	7.6	11.7	15.7	16.3
59°	0.6	4.1	7.6	11.7	15.1	16.3
60°	1.2	3.5	7.0	11.1	15.1	16.3
62.5°	1.2	3.5	7.0	11.1	14.6	15.7
65°	1.2	3.5	6.4	10.5	14.6	15.7



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CANDELA DISTRIBUTION (continued):

	67.5°	90°	112.5°	135°	157.5°	180°
67.5°	1.2	2.9	5.8	9.9	14.0	15.1
70°	1.2	3.5	5.8	9.3	13.4	14.6
72.5°	1.7	2.9	5.2	8.7	12.8	14.0
75°	1.7	2.9	5.2	8.2	12.2	12.8
77.5°	2.3	2.9	4.7	7.0	11.1	11.7
80°	2.3	2.9	4.1	5.8	9.3	9.9
82.5°	2.3	2.9	2.9	4.7	7.0	7.6
85°	1.7	2.3	2.3	2.9	4.7	5.2
87.5°	1.7	2.3	1.7	1.2	2.3	2.3
90°	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)