

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: P1326023

Luminaire Tested: LDSQA3D09R20W2N902765DE010 3LSQCA45R 1MMS_3500K

Issue Date: 1/29/2026

Test Information

Test Method: LM-79-2019
Report Number: P1326023
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_3500K
Description: 3in Adjustable Tunable White LED luminaire with, R20 optic, 3500K CCT AND, 90CRI ,
3LSQCA45R 1MMS TRIM
Light Source: -
Ballast/Driver: -

Summary

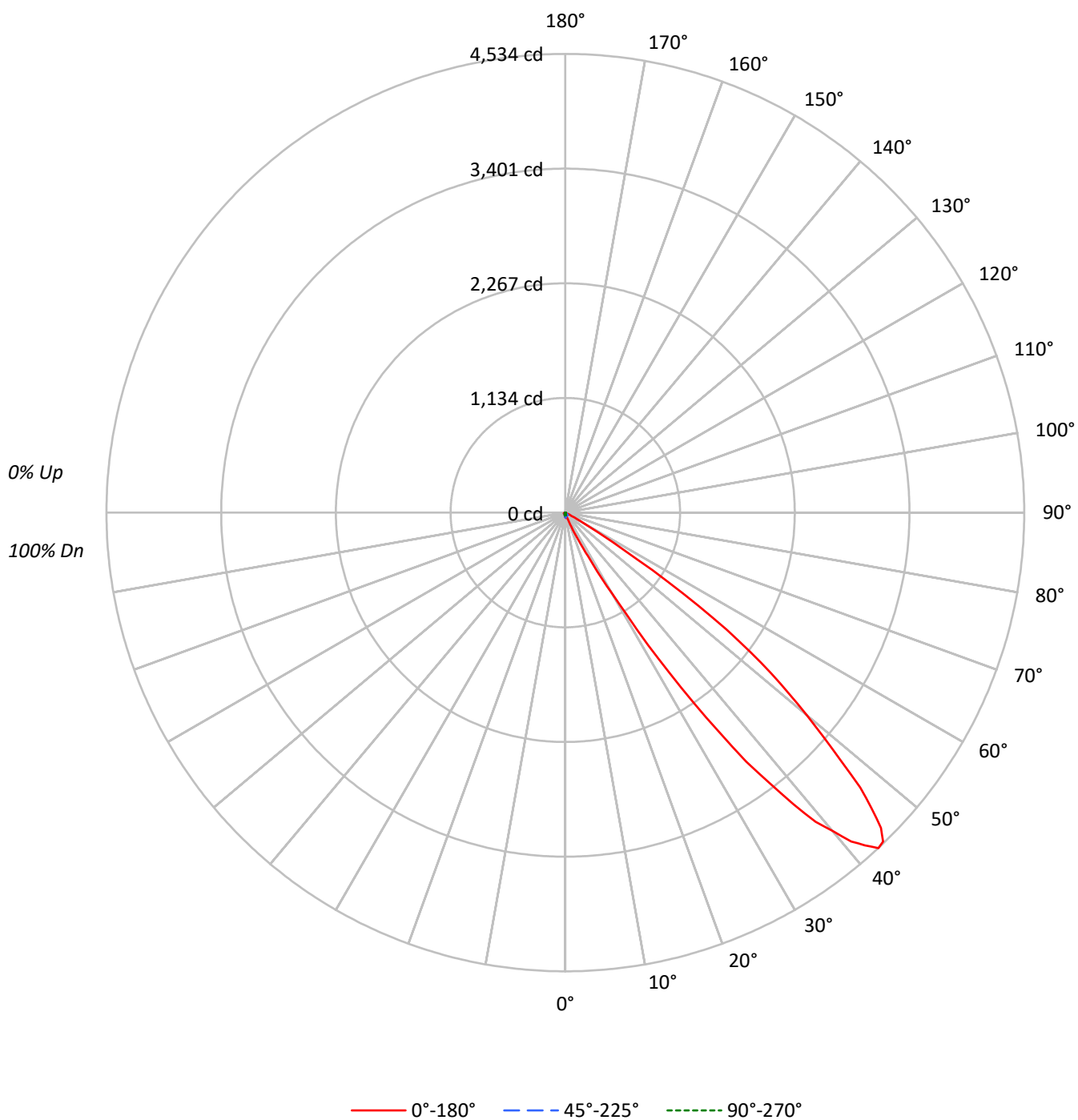
Lumens per Lamp: N/A
Luminaire Lumens: 630.0 lumens
Efficiency: N/A
Efficacy: 70.0 lumens/watt
Spacing Criteria (0/90/45): 3.39 / 0.51 / 1.14
Luminous Opening: Rectangular (W 0.25' x L: 0.25' x H: 0')
CIE Type: Direct

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
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30
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°	7543	7543	7543	7543	7543
5°	8800	8195	7071	6137	5930
10°	8692	7450	5596	4757	4652
15°	7595	5706	4119	3798	4012
20°	11290	4783	3042	3262	3574
25°	48609	4960	2356	2926	3496
30°	183792	6006	2009	2824	3420
35°	557149	7211	1871	2859	3616
40°	923878	7194	1596	3058	3867
45°	1073854	4896	1437	3166	4189
50°	833587	2706	1420	3322	4769
55°	482459	1772	1411	3723	5164
60°	81565	413	1240	3858	5718
65°	6276	0	1467	4360	6520
70°	906	0	1813	4784	7452
75°	799	399	1996	5523	8650
80°	595	595	2975	5852	10017
85°	1186	1186	4742	5928	10473

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 1073854 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	3.8	0.6
10°-20°	7.9	1.3
20°-30°	25.2	4.0
30°-40°	160.7	25.5
40°-50°	294.1	46.7
50°-60°	120.8	19.2
60°-70°	10.2	1.6
70°-80°	5.1	0.8
80°-90°	2.4	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°	36.8	5.8
0°-40°	197.5	31.3
0°-60°	612.3	97.2
0°-90°	630.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	630.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	44	44	44	44	44	
5°	51	47	41	36	34	5
15°	43	32	23	21	22	14
25°	256	26	12	15	18	168
35°	2650	34	9	14	17	1677
45°	4409	20	6	13	17	3166
55°	1607	6	5	12	17	1405
65°	15	0	4	11	16	50
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°	43.8	43.8	43.8	43.8	43.8	43.8	43.8	43.8	43.8	43.8	43.8
2.5°	48.0	48.0	48.0	47.4	47.4	48.0	47.4	47.4	47.4	47.4	46.8
5°	50.9	50.9	50.9	50.9	50.9	50.9	50.9	50.3	50.3	49.7	47.4
7.5°	52.1	52.1	52.1	52.1	51.5	51.5	51.5	51.5	50.9	50.3	46.2
10°	49.7	49.7	49.7	49.1	49.1	49.1	48.5	48.5	48.0	47.4	42.6
12.5°	45.0	45.0	45.0	45.0	44.4	44.4	43.8	43.8	43.2	42.6	37.3
15°	42.6	42.6	42.6	42.0	42.0	41.4	40.9	40.3	39.7	38.5	32.0
17.5°	46.2	46.2	45.6	45.6	44.4	43.2	42.6	40.9	39.7	37.9	28.4
20°	61.6	62.2	59.8	58.0	56.8	53.3	51.5	48.5	46.2	43.2	26.1
22.5°	124.3	122.0	117.8	111.3	103.6	97.1	85.3	75.8	69.3	60.4	25.5
25°	255.8	253.4	242.1	232.7	209.0	190.6	165.2	144.5	123.1	102.4	26.1
27.5°	486.1	470.1	467.1	423.9	390.8	343.4	294.2	252.8	214.9	172.9	27.8
30°	924.2	905.8	841.3	776.2	686.8	585.5	489.0	399.0	323.9	255.8	30.2
31°	1172.9	1190.6	1114.8	984.0	852.0	722.3	590.3	476.0	378.9	294.2	31.4
32°	1541.7	1464.1	1384.2	1249.8	1058.0	892.2	726.4	561.9	434.0	335.7	32.6
33°	1890.4	1844.8	1722.9	1555.3	1325.0	1092.3	877.4	663.1	501.5	386.0	33.2
34°	2262.2	2211.9	2113.0	1872.7	1619.9	1314.9	1028.4	779.7	582.0	435.2	33.7
35°	2650.0	2628.7	2438.1	2229.7	1918.8	1551.2	1210.2	907.6	660.7	480.2	34.3
36°	3040.2	2971.5	2822.3	2518.0	2193.6	1769.6	1400.8	1026.6	740.7	533.4	34.3
37°	3333.8	3318.5	3120.7	2824.1	2442.8	2002.9	1565.4	1158.6	821.2	579.0	34.3
38°	3657.7	3596.7	3396.0	3094.1	2677.3	2216.6	1737.7	1273.5	897.6	620.5	33.7
39°	3930.6	3840.1	3637.6	3339.2	2882.1	2378.9	1874.4	1384.8	965.0	654.8	33.2
40°	4109.4	4046.7	3835.3	3499.6	3068.0	2532.2	2013.0	1476.6	1015.4	680.9	32.0
41°	4306.6	4202.4	3993.4	3655.9	3203.0	2667.2	2100.0	1537.0	1054.4	698.0	30.8
42°	4424.4	4339.1	4091.1	3760.7	3299.5	2744.2	2171.1	1583.1	1078.1	706.9	28.4
43°	4534.5	4418.5	4176.9	3821.7	3363.4	2798.6	2203.6	1604.5	1083.5	706.9	25.5
44°	4519.7	4409.6	4159.2	3830.0	3377.7	2814.6	2217.2	1605.1	1075.2	698.0	22.5
45°	4409.0	4299.5	4073.9	3757.8	3326.7	2783.2	2190.0	1581.4	1052.1	682.6	20.1
46°	4205.9	4097.0	3924.1	3637.0	3232.0	2712.2	2126.7	1529.9	1013.6	657.8	17.8
47°	3985.1	3879.1	3702.1	3442.2	3070.4	2585.5	2034.9	1457.6	959.7	621.7	16.0
48°	3664.8	3598.5	3420.9	3198.9	2846.0	2387.2	1873.8	1339.8	887.5	574.9	13.6
49°	3381.8	3311.9	3156.2	2917.6	2553.5	2156.3	1681.4	1196.5	793.3	522.8	11.8
50°	3111.2	3050.3	2906.4	2637.0	2289.5	1877.4	1421.5	1016.0	674.9	458.2	10.1
51°	2846.6	2801.0	2654.2	2406.7	2053.8	1663.1	1231.5	846.0	557.7	380.1	9.5
52°	2580.8	2575.4	2416.2	2165.7	1824.7	1449.3	1046.7	714.0	473.0	319.1	8.9
53°	2294.8	2260.5	2121.3	1896.3	1568.9	1226.7	887.5	602.1	407.3	271.8	7.7
54°	1969.2	1930.7	1781.5	1578.4	1281.8	1004.7	715.2	486.7	339.2	229.7	7.1
55°	1606.8	1541.1	1432.8	1224.4	1001.2	766.7	552.4	385.4	271.2	191.2	5.9
56°	1219.0	1153.3	1092.3	939.0	734.7	571.9	411.5	295.4	212.0	151.0	5.3
57°	847.8	844.3	744.2	626.4	491.4	389.6	281.8	208.4	149.8	117.2	4.1
58°	550.0	531.7	467.7	399.6	321.5	243.3	181.2	141.5	101.8	79.9	3.6
59°	385.4	348.7	314.4	266.4	202.5	153.3	116.6	90.6	70.5	55.7	2.4
60°	236.8	229.1	206.0	162.2	131.4	108.3	87.0	66.9	51.5	39.7	1.2
62.5°	67.5	68.7	62.2	55.1	47.4	40.9	36.7	31.4	26.1	20.7	0.0
65°	15.4	14.8	16.0	14.8	13.6	13.6	11.8	10.7	9.5	8.9	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	3.6	3.6	3.0	3.0	2.4	0.0
70°	1.8	1.8	1.8	1.8	1.8	1.2	1.2	1.2	0.6	0.6	0.0
72.5°	1.8	1.8	1.8	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°	43.8	43.8	43.8	43.8	43.8	43.8
2.5°	45.6	43.2	41.4	39.7	39.1	39.1
5°	44.4	40.9	37.3	35.5	34.3	34.3
7.5°	40.9	36.7	33.2	31.4	30.8	30.8
10°	36.7	32.0	28.4	27.2	27.2	26.6
12.5°	32.0	27.2	24.9	24.3	24.3	24.3
15°	26.6	23.1	21.3	21.3	21.9	22.5
17.5°	22.5	18.9	18.4	19.5	20.7	20.7
20°	18.9	16.6	16.6	17.8	18.9	19.5
22.5°	16.0	14.2	14.8	16.6	18.4	18.9
25°	14.2	12.4	13.6	15.4	17.2	18.4
27.5°	11.8	11.2	12.4	14.8	17.2	17.8
30°	10.1	10.1	11.8	14.2	16.6	17.2
31°	9.5	9.5	11.8	14.2	16.6	17.2
32°	8.9	9.5	11.2	14.2	16.6	17.2
33°	8.3	8.9	11.2	13.6	16.6	17.2
34°	7.7	8.9	11.2	13.6	16.6	17.2
35°	7.1	8.9	11.2	13.6	16.6	17.2
36°	6.5	8.3	10.7	13.6	16.6	17.2
37°	5.9	8.3	10.7	13.6	16.6	17.2
38°	5.3	7.7	10.7	13.6	16.6	17.2
39°	5.3	7.7	10.1	13.6	16.0	17.2
40°	4.7	7.1	10.1	13.6	16.0	17.2
41°	4.1	7.1	10.1	13.0	16.0	17.2
42°	3.6	6.5	9.5	13.0	16.0	17.2
43°	3.0	6.5	9.5	13.0	16.0	17.2
44°	3.0	5.9	9.5	13.0	16.0	17.2
45°	2.4	5.9	9.5	13.0	16.0	17.2
46°	1.8	5.9	9.5	13.0	16.0	17.2
47°	1.8	5.3	8.9	13.0	16.0	17.2
48°	1.2	5.3	8.9	13.0	16.0	17.2
49°	1.2	5.3	8.9	13.0	16.0	17.8
50°	1.2	5.3	8.9	12.4	16.0	17.8
51°	0.6	5.3	8.9	12.4	16.0	17.8
52°	0.6	5.3	8.3	12.4	16.6	17.8
53°	0.6	4.7	8.3	12.4	16.6	17.8
54°	0.6	4.7	8.3	12.4	16.6	17.2
55°	0.6	4.7	8.3	12.4	16.0	17.2
56°	0.6	4.1	8.3	12.4	16.0	17.2
57°	0.6	4.1	7.7	11.8	16.0	16.6
58°	0.6	4.1	7.7	11.8	16.0	16.6
59°	0.6	4.1	7.7	11.8	15.4	16.6
60°	1.2	3.6	7.1	11.2	15.4	16.6
62.5°	1.2	3.6	7.1	11.2	14.8	16.0
65°	1.2	3.6	6.5	10.7	14.8	16.0



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CANDELA DISTRIBUTION (continued):

	67.5°	90°	112.5°	135°	157.5°	180°
67.5°	1.2	3.0	5.9	10.1	14.2	15.4
70°	1.2	3.6	5.9	9.5	13.6	14.8
72.5°	1.8	3.0	5.3	8.9	13.0	14.2
75°	1.8	3.0	5.3	8.3	12.4	13.0
77.5°	2.4	3.0	4.7	7.1	11.2	11.8
80°	2.4	3.0	4.1	5.9	9.5	10.1
82.5°	2.4	3.0	3.0	4.7	7.1	7.7
85°	1.8	2.4	2.4	3.0	4.7	5.3
87.5°	1.8	2.4	1.8	1.2	2.4	2.4
90°	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)