

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: P1314916

Luminaire Tested: LDSQA3D20R209730D010 3LSQCA45R 1MMS

Issue Date: 1/29/2026

**Test Information**

Test Method: LM-79-2019  
Report Number: P1314916  
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: LDSQA3D20R209730D010 3LSQCA45R 1MMS  
Description: 3in Adjustable LED luminaire with, R20 optic, 3000K CCT AND, 97CRI , 3LSQCA45R 1MMS TRII  
Light Source: -  
Ballast/Driver: -

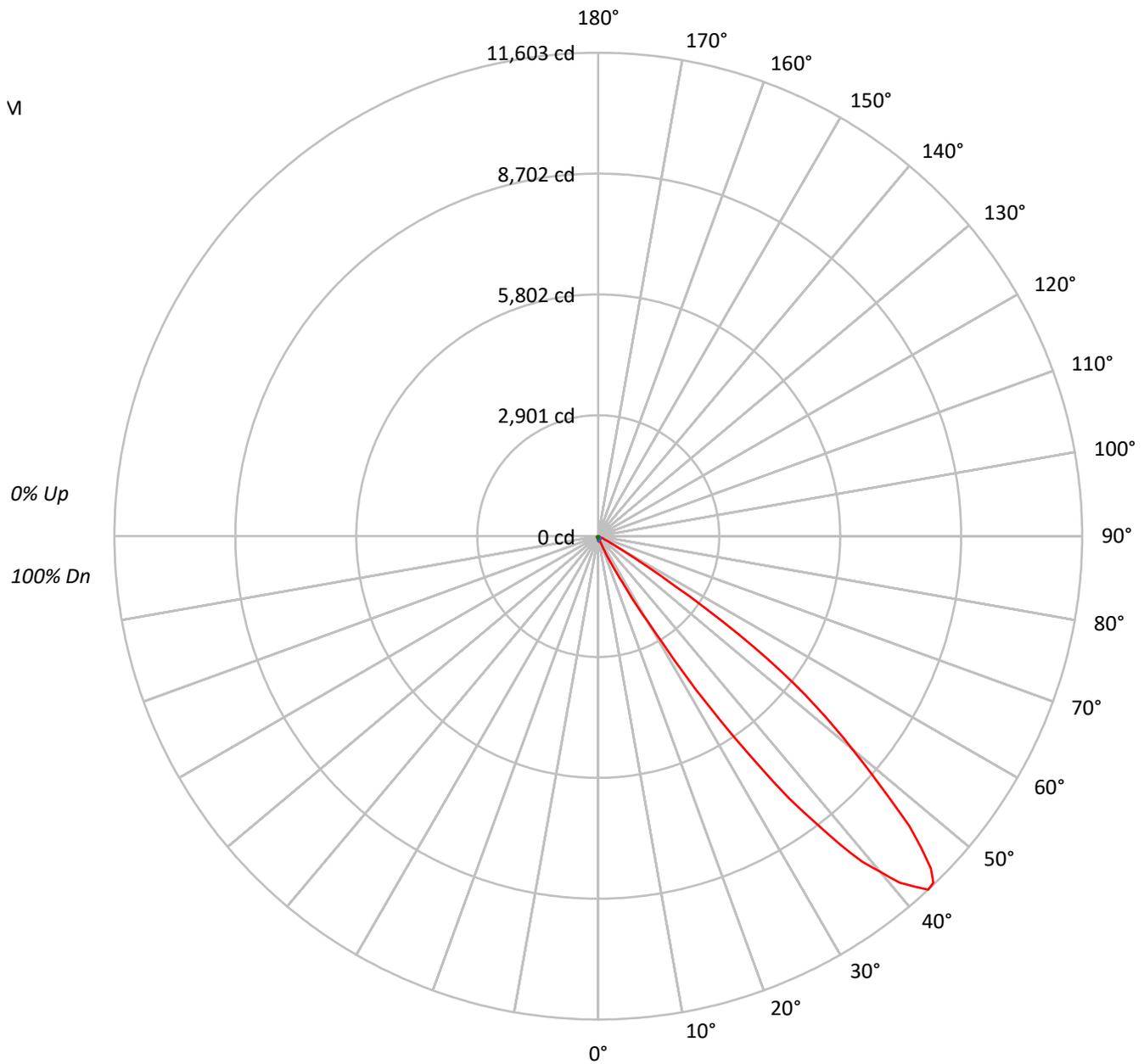
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1612.0 lumens  
Efficiency: N/A  
Efficacy: 56.0 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): 28.8  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): 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



— 0°-180°    - - - 45°-225°    ····· 90°-270°



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

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°	135°	180°
0°	19306	19306	19306	19306	19306
5°	22526	20953	18066	15715	15196
10°	22262	19079	14305	12189	11927
15°	19452	14585	10537	9717	10270
20°	28866	12224	7771	8321	9164
25°	124353	12675	6043	7487	8931
30°	470277	15372	5131	7239	8730
35°	1425608	18481	4773	7317	9230
40°	2363967	18390	4092	7824	9870
45°	2747718	12543	3678	8111	10692
50°	2132944	6913	3644	8520	12164
55°	1234493	4534	3633	9548	13181
60°	208734	1033	3134	9920	14604
65°	16056	0	3708	11125	16667
70°	2266	0	4582	12186	19084
75°	1996	998	5057	14107	22158
80°	1488	1488	7538	14976	25588
85°	2964	2964	12054	15018	26874

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 2747718 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	9.6	0.6
10°-20°	20.2	1.3
20°-30°	64.4	4.0
30°-40°	411.1	25.5
40°-50°	752.4	46.7
50°-60°	309.1	19.2
60°-70°	26.1	1.6
70°-80°	13.0	0.8
80°-90°	6.1	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°	94.2	5.8
0°-40°	505.2	31.3
0°-60°	1566.8	97.2
0°-90°	1612.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1612.0	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	112	112	112	112	112	
5°	130	121	104	91	88	12
15°	109	82	59	54	58	35
25°	654	67	32	39	47	430
35°	6781	88	23	35	44	4292
45°	11282	52	15	33	44	8100
55°	4111	15	12	32	44	3594
65°	39	0	9	27	41	128
75°	3	2	8	21	33	4
85°	2	2	6	8	14	1
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°	112.1	112.1	112.1	112.1	112.1	112.1	112.1	112.1	112.1	112.1	112.1
2.5°	122.7	122.7	122.7	121.2	121.2	122.7	121.2	121.2	121.2	121.2	119.7
5°	130.3	130.3	130.3	130.3	130.3	130.3	130.3	128.8	128.8	127.3	121.2
7.5°	133.3	133.3	133.3	133.3	131.8	131.8	131.8	131.8	130.3	128.8	118.2
10°	127.3	127.3	127.3	125.7	125.7	125.7	124.2	124.2	122.7	121.2	109.1
12.5°	115.1	115.1	115.1	115.1	113.6	113.6	112.1	112.1	110.6	109.1	95.4
15°	109.1	109.1	109.1	107.6	107.6	106.0	104.5	103.0	101.5	98.5	81.8
17.5°	118.2	118.2	116.6	116.6	113.6	110.6	109.1	104.5	101.5	97.0	72.7
20°	157.5	159.1	153.0	148.5	145.4	136.3	131.8	124.2	118.2	110.6	66.7
22.5°	318.1	312.1	301.5	284.8	265.1	248.4	218.1	193.9	177.2	154.5	65.1
25°	654.4	648.4	619.6	595.4	534.8	487.8	422.7	369.6	315.1	262.1	66.7
27.5°	1243.7	1202.8	1195.3	1084.7	999.8	878.6	752.9	646.9	549.9	442.4	71.2
30°	2364.8	2317.8	2152.7	1986.0	1757.3	1498.2	1251.3	1021.0	828.7	654.4	77.3
31°	3001.0	3046.5	2852.6	2517.8	2179.9	1848.2	1510.4	1218.0	969.5	752.9	80.3
32°	3944.8	3746.4	3541.8	3198.0	2707.1	2283.0	1858.8	1437.6	1110.4	858.9	83.3
33°	4837.1	4720.4	4408.4	3979.6	3390.3	2795.0	2245.1	1696.7	1283.1	987.7	84.8
34°	5788.4	5659.7	5406.7	4791.6	4144.8	3364.6	2631.4	1995.1	1489.1	1113.5	86.3
35°	6780.7	6726.2	6238.4	5705.1	4909.8	3969.0	3096.5	2322.3	1690.6	1228.6	87.9
36°	7779.0	7603.3	7221.5	6442.9	5612.7	4528.0	3584.3	2626.8	1895.1	1364.9	87.9
37°	8530.4	8491.0	7985.0	7226.1	6250.5	5124.9	4005.4	2964.7	2101.2	1481.6	87.9
38°	9359.1	9203.0	8689.5	7916.9	6850.4	5671.8	4446.2	3258.6	2296.6	1587.6	86.3
39°	10057.4	9825.7	9307.6	8544.0	7374.5	6086.9	4796.2	3543.4	2469.3	1675.5	84.8
40°	10514.9	10354.4	9813.5	8954.6	7850.2	6479.2	5150.7	3778.2	2598.1	1742.1	81.8
41°	11019.4	10752.8	10218.0	9354.5	8195.6	6824.6	5373.4	3932.7	2698.0	1786.1	78.8
42°	11320.9	11102.7	10468.0	9622.7	8442.5	7021.6	5555.1	4050.8	2758.6	1808.8	72.7
43°	11602.6	11305.7	10687.6	9778.7	8606.2	7160.9	5638.5	4105.4	2772.3	1808.8	65.1
44°	11564.8	11283.0	10642.2	9799.9	8642.5	7201.8	5673.3	4106.9	2751.1	1786.1	57.6
45°	11281.5	11001.2	10424.0	9615.1	8512.2	7121.6	5603.6	4046.3	2692.0	1746.7	51.5
46°	10761.9	10483.1	10040.8	9306.0	8269.8	6939.8	5441.5	3914.5	2593.5	1683.1	45.4
47°	10196.8	9925.6	9472.7	8807.6	7856.3	6615.6	5206.7	3729.7	2455.7	1590.6	40.9
48°	9377.2	9207.6	8753.1	8185.0	7282.1	6108.1	4794.7	3428.2	2270.8	1471.0	34.8
49°	8653.1	8474.4	8075.9	7465.4	6533.8	5517.3	4302.3	3061.6	2030.0	1337.7	30.3
50°	7960.8	7804.8	7436.7	6747.4	5858.1	4803.8	3637.3	2599.6	1727.0	1172.5	25.8
51°	7283.6	7167.0	6791.3	6158.1	5255.2	4255.4	3151.0	2164.8	1427.0	972.6	24.2
52°	6603.5	6589.8	6182.3	5541.5	4668.9	3708.5	2678.3	1827.0	1210.4	816.5	22.7
53°	5871.8	5783.9	5427.9	4852.2	4014.5	3138.9	2270.8	1540.7	1042.3	695.3	19.7
54°	5038.6	4940.1	4558.3	4038.7	3279.8	2570.8	1830.0	1245.2	868.0	587.8	18.2
55°	4111.4	3943.3	3666.1	3132.8	2561.7	1961.8	1413.4	986.2	693.8	489.3	15.1
56°	3119.2	2951.0	2795.0	2402.6	1880.0	1463.4	1052.9	755.9	542.3	386.3	13.6
57°	2169.3	2160.2	1904.2	1602.8	1257.4	996.8	721.1	533.2	383.3	300.0	10.6
58°	1407.3	1360.4	1196.8	1022.6	822.6	622.6	463.6	362.1	260.6	204.5	9.1
59°	986.2	892.3	804.4	681.7	518.1	392.4	298.4	231.8	180.3	142.4	6.1
60°	606.0	586.3	527.2	415.1	336.3	277.2	222.7	171.2	131.8	101.5	3.0
62.5°	172.7	175.7	159.1	140.9	121.2	104.5	93.9	80.3	66.7	53.0	0.0
65°	39.4	37.9	40.9	37.9	34.8	34.8	30.3	27.3	24.2	22.7	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°	12.1	12.1	10.6	10.6	10.6	9.1	9.1	7.6	7.6	6.1	0.0
70°	4.5	4.5	4.5	4.5	4.5	3.0	3.0	3.0	1.5	1.5	0.0
72.5°	4.5	4.5	4.5	3.0	3.0	3.0	3.0	3.0	1.5	1.5	1.5
75°	3.0	3.0	3.0	3.0	3.0	3.0	3.0	1.5	1.5	1.5	1.5
77.5°	3.0	3.0	3.0	3.0	3.0	1.5	3.0	1.5	1.5	1.5	1.5
80°	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
82.5°	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
85°	1.5	1.5	1.5	1.5	0.0	0.0	1.5	1.5	1.5	0.0	1.5
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.5
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°	112.1	112.1	112.1	112.1	112.1	112.1
2.5°	116.6	110.6	106.0	101.5	100.0	100.0
5°	113.6	104.5	95.4	90.9	87.9	87.9
7.5°	104.5	93.9	84.8	80.3	78.8	78.8
10°	93.9	81.8	72.7	69.7	69.7	68.2
12.5°	81.8	69.7	63.6	62.1	62.1	62.1
15°	68.2	59.1	54.5	54.5	56.1	57.6
17.5°	57.6	48.5	47.0	50.0	53.0	53.0
20°	48.5	42.4	42.4	45.4	48.5	50.0
22.5°	40.9	36.4	37.9	42.4	47.0	48.5
25°	36.4	31.8	34.8	39.4	43.9	47.0
27.5°	30.3	28.8	31.8	37.9	43.9	45.4
30°	25.8	25.8	30.3	36.4	42.4	43.9
31°	24.2	24.2	30.3	36.4	42.4	43.9
32°	22.7	24.2	28.8	36.4	42.4	43.9
33°	21.2	22.7	28.8	34.8	42.4	43.9
34°	19.7	22.7	28.8	34.8	42.4	43.9
35°	18.2	22.7	28.8	34.8	42.4	43.9
36°	16.7	21.2	27.3	34.8	42.4	43.9
37°	15.1	21.2	27.3	34.8	42.4	43.9
38°	13.6	19.7	27.3	34.8	42.4	43.9
39°	13.6	19.7	25.8	34.8	40.9	43.9
40°	12.1	18.2	25.8	34.8	40.9	43.9
41°	10.6	18.2	25.8	33.3	40.9	43.9
42°	9.1	16.7	24.2	33.3	40.9	43.9
43°	7.6	16.7	24.2	33.3	40.9	43.9
44°	7.6	15.1	24.2	33.3	40.9	43.9
45°	6.1	15.1	24.2	33.3	40.9	43.9
46°	4.5	15.1	24.2	33.3	40.9	43.9
47°	4.5	13.6	22.7	33.3	40.9	43.9
48°	3.0	13.6	22.7	33.3	40.9	43.9
49°	3.0	13.6	22.7	33.3	40.9	45.4
50°	3.0	13.6	22.7	31.8	40.9	45.4
51°	1.5	13.6	22.7	31.8	40.9	45.4
52°	1.5	13.6	21.2	31.8	42.4	45.4
53°	1.5	12.1	21.2	31.8	42.4	45.4
54°	1.5	12.1	21.2	31.8	42.4	43.9
55°	1.5	12.1	21.2	31.8	40.9	43.9
56°	1.5	10.6	21.2	31.8	40.9	43.9
57°	1.5	10.6	19.7	30.3	40.9	42.4
58°	1.5	10.6	19.7	30.3	40.9	42.4
59°	1.5	10.6	19.7	30.3	39.4	42.4
60°	3.0	9.1	18.2	28.8	39.4	42.4
62.5°	3.0	9.1	18.2	28.8	37.9	40.9
65°	3.0	9.1	16.7	27.3	37.9	40.9



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**CANDELA DISTRIBUTION (continued):**

	67.5°	90°	112.5°	135°	157.5°	180°
67.5°	3.0	7.6	15.1	25.8	36.4	39.4
70°	3.0	9.1	15.1	24.2	34.8	37.9
72.5°	4.5	7.6	13.6	22.7	33.3	36.4
75°	4.5	7.6	13.6	21.2	31.8	33.3
77.5°	6.1	7.6	12.1	18.2	28.8	30.3
80°	6.1	7.6	10.6	15.1	24.2	25.8
82.5°	6.1	7.6	7.6	12.1	18.2	19.7
85°	4.5	6.1	6.1	7.6	12.1	13.6
87.5°	4.5	6.1	4.5	3.0	6.1	6.1
90°	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)