

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: P1320348

Luminaire Tested: LDSQA3D20R159840D010 3LSQCA45R 1MMS

Issue Date: 1/29/2026

**Test Information**

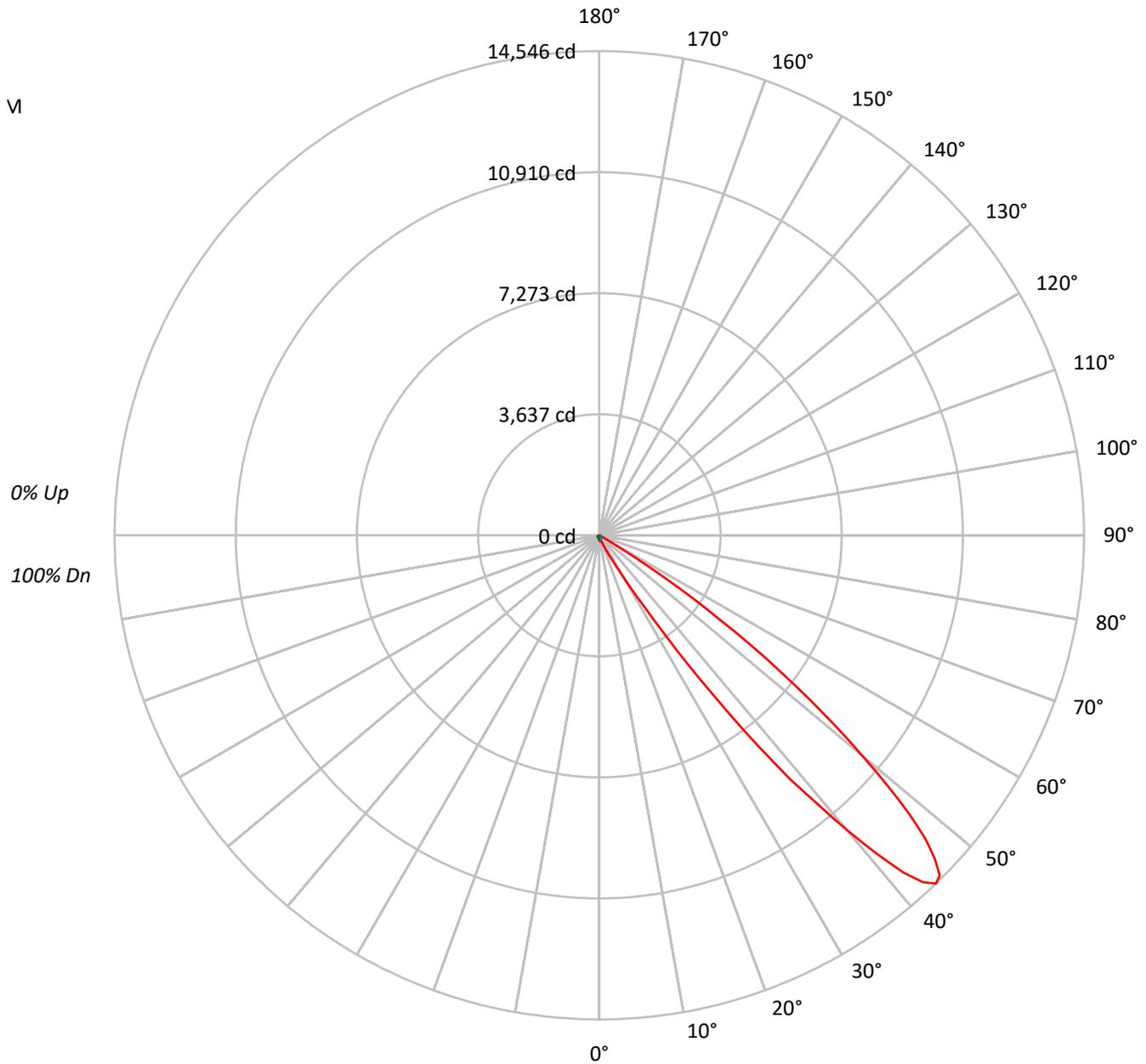
Test Method: LM-79-2019  
Report Number: P1320348  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2510-583-73)  
Test Lab: INNOVATION CENTER  
Issue Date: 1/29/2026  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: PORTFOLIO  
Catalog Number: LDSQA3D20R159840D010 3LSQCA45R 1MMS  
Description: 3in Adjustable LED luminaire with, R15 optic, 4000K CCT AND, 98CRI , 3LSQCA45R 1MMS TRII  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1624.0 lumens  
Efficiency: N/A  
Efficacy: 59.3 lumens/watt  
Spacing Criteria (0/90/45): 3.26 / 0.47 / 1.08  
Luminous Opening: Rectangular (W 0.25' x L: 0.25' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 27.4  
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



— 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	100				
1	110	106	102	99	107	104	100	97	100	97	94	96	93	91	92	90	89	87				
2	101	93	87	81	98	91	85	80	87	83	78	84	80	77	81	78	75	73				
3	91	81	73	67	89	79	72	66	76	70	65	74	68	64	71	67	63	61				
4	83	71	62	55	80	69	61	55	67	60	54	64	58	53	62	57	53	50				
5	75	62	52	46	73	61	52	45	58	51	45	56	50	44	55	49	44	42				
6	68	54	45	38	66	53	44	38	51	43	37	49	42	37	48	42	37	35				
7	62	47	38	32	60	47	38	32	45	37	31	44	36	31	42	36	31	29				
8	56	42	33	27	55	41	33	27	40	32	26	39	31	26	37	31	26	24				
9	52	37	28	22	50	37	28	22	35	28	22	34	27	22	33	27	22	20				
10	48	33	25	19	46	33	25	19	32	24	19	31	24	19	30	23	19	17				

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

	0°	45°	90°	135°	180°
0°	24817	24817	24817	24817	24817
5°	30790	27436	22388	19587	19311
10°	30307	23504	17278	15284	15582
15°	25122	16742	12410	12695	13568
20°	43620	13361	9494	10978	12463
25°	97237	16000	7696	10147	11687
30°	290781	19648	6761	9983	12230
35°	1119387	22139	6118	10218	12930
40°	2598208	19290	5823	10567	13826
45°	3519144	14589	5139	11447	14979
50°	2759313	8681	5198	12137	16478
55°	1324421	3903	4864	13121	17986
60°	121038	551	4478	13950	20081
65°	13203	0	3953	14507	21761
70°	3273	0	4884	15509	23667
75°	3261	1065	6455	17234	26949
80°	3174	3174	8034	17654	28861
85°	3162	3162	12844	16006	32012

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 3519144 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	12.3	0.8
10°-20°	25.6	1.6
20°-30°	61.4	3.8
30°-40°	335.9	20.7
40°-50°	813.4	50.1
50°-60°	324.5	20.0
60°-70°	28.0	1.7
70°-80°	15.8	1.0
80°-90°	7.0	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°	99.3	6.1
0°-40°	435.2	26.8
0°-60°	1573.1	96.9
0°-90°	1624.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1624.0	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	144	144	144	144	144	
5°	178	159	130	113	112	17
15°	141	94	70	71	76	49
25°	512	84	40	53	62	309
35°	5324	105	29	49	62	3762
45°	14449	60	21	47	62	10193
55°	4411	13	16	44	60	4109
65°	32	0	10	36	53	83
75°	5	2	10	26	40	5
85°	2	2	6	8	16	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°	144.1	144.1	144.1	144.1	144.1	144.1	144.1	144.1	144.1	144.1	144.1
2.5°	161.9	161.9	163.5	161.9	161.9	161.9	161.9	160.3	160.3	160.3	155.5
5°	178.1	178.1	178.1	178.1	176.5	176.5	176.5	174.9	174.9	173.3	158.7
7.5°	184.6	184.6	183.0	183.0	181.4	181.4	179.7	178.1	176.5	174.9	152.2
10°	173.3	173.3	173.3	171.6	171.6	170.0	168.4	166.8	165.2	161.9	134.4
12.5°	153.8	153.8	155.5	153.8	152.2	150.6	147.4	145.7	144.1	140.9	111.7
15°	140.9	140.9	140.9	139.3	137.6	134.4	132.8	129.5	127.9	123.1	93.9
17.5°	179.7	179.7	178.1	174.9	168.4	163.5	155.5	149.0	140.9	131.2	81.0
20°	238.0	238.0	234.8	231.6	223.5	215.4	202.4	191.1	178.1	166.8	72.9
22.5°	344.9	349.8	340.0	328.7	317.4	297.9	280.1	262.3	239.7	220.2	74.5
25°	511.7	516.6	511.7	485.8	464.7	438.8	404.8	369.2	330.3	294.7	84.2
27.5°	829.1	832.3	824.2	761.1	727.1	659.0	599.1	540.8	476.1	411.3	92.3
30°	1462.2	1463.8	1412.0	1285.7	1174.0	1025.0	898.7	777.3	675.2	571.6	98.8
31°	1925.3	1880.0	1769.9	1617.7	1439.5	1238.7	1065.5	908.4	756.2	644.5	100.4
32°	2445.1	2438.6	2255.7	1991.7	1753.7	1502.7	1242.0	1041.2	866.3	714.1	102.0
33°	3133.3	3136.5	2848.3	2537.4	2147.2	1810.4	1468.7	1193.4	982.9	796.7	105.3
34°	4208.5	3955.9	3617.5	3196.5	2665.3	2158.5	1714.8	1369.9	1088.2	876.0	105.3
35°	5324.2	5070.0	4697.5	4059.5	3330.9	2621.6	2007.9	1559.4	1214.5	961.9	105.3
36°	6574.3	6358.9	5795.4	4980.9	4051.4	3058.8	2318.8	1778.0	1339.1	1039.6	103.6
37°	7924.8	7609.0	6984.0	6095.0	4851.4	3674.1	2697.7	1995.0	1463.8	1123.8	100.4
38°	9296.3	9011.3	8222.7	7145.9	5806.7	4323.5	3076.6	2203.8	1578.8	1186.9	95.5
39°	10335.9	10180.4	9398.3	8195.2	6569.4	4938.8	3466.9	2427.3	1700.2	1250.1	90.7
40°	11556.8	11305.8	10564.2	9076.1	7471.4	5565.5	3849.0	2624.9	1800.6	1300.3	85.8
41°	12670.9	12353.5	11417.5	9979.6	8193.6	6129.0	4211.7	2828.9	1881.6	1329.4	82.6
42°	13626.2	13257.1	12279.0	10753.6	8797.6	6579.1	4501.6	2974.6	1957.7	1353.7	77.7
43°	14244.8	13925.8	12964.0	11335.0	9314.1	6992.1	4772.0	3126.8	2004.7	1369.9	71.2
44°	14546.0	14223.8	13292.7	11699.3	9631.5	7239.8	4946.9	3232.1	2056.5	1391.0	66.4
45°	14448.8	14121.7	13221.4	11705.8	9730.3	7328.9	5021.4	3279.0	2084.0	1410.4	59.9
46°	14003.5	13773.6	12866.8	11401.4	9542.4	7233.3	4979.3	3243.4	2074.3	1410.4	53.4
47°	13378.5	13116.2	12253.1	10878.3	9087.4	6987.2	4809.3	3134.9	2014.4	1378.0	47.0
48°	12526.8	12303.3	11396.5	10047.6	8389.5	6451.2	4425.5	2958.4	1920.5	1314.9	40.5
49°	11458.0	11147.1	10303.5	8985.4	7479.5	5690.2	3921.9	2660.5	1769.9	1225.8	35.6
50°	10298.6	9914.9	9263.9	7921.5	6538.7	4878.9	3259.6	2249.2	1557.7	1109.2	32.4
51°	9163.5	8773.3	8153.1	7011.5	5534.7	4048.2	2629.7	1795.8	1282.5	948.9	27.5
52°	7986.3	7659.2	6964.5	6067.4	4738.0	3280.7	2190.9	1518.9	1065.5	796.7	22.7
53°	6813.9	6590.5	5929.8	5021.4	3806.9	2679.9	1789.3	1300.3	929.5	681.7	17.8
54°	5640.0	5395.4	4893.5	4083.8	3068.5	2114.8	1517.3	1088.2	806.4	594.3	16.2
55°	4410.9	4284.6	3821.5	3113.9	2325.3	1687.3	1230.7	935.9	675.2	497.1	13.0
56°	3397.3	3254.8	2832.1	2258.9	1727.8	1321.3	995.9	764.3	571.6	416.2	9.7
57°	2224.9	2079.2	1799.0	1577.2	1258.2	963.5	761.1	602.4	464.7	344.9	8.1
58°	1314.9	1182.1	1138.4	971.6	838.8	654.2	561.9	448.5	343.3	272.0	4.9
59°	604.0	613.7	545.7	511.7	464.7	416.2	341.7	299.6	234.8	195.9	3.2
60°	351.4	332.0	323.9	289.9	257.5	228.3	205.6	181.4	147.4	126.3	1.6
62.5°	119.8	115.0	118.2	106.9	100.4	97.2	89.1	76.1	63.2	51.8	0.0
65°	32.4	32.4	30.8	29.1	27.5	25.9	24.3	21.1	19.4	16.2	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°	11.3	11.3	9.7	9.7	8.1	8.1	6.5	6.5	4.9	4.9	0.0
70°	6.5	6.5	6.5	4.9	4.9	4.9	3.2	3.2	3.2	1.6	0.0
72.5°	4.9	4.9	4.9	4.9	4.9	4.9	3.2	3.2	3.2	1.6	1.6
75°	4.9	4.9	4.9	3.2	3.2	3.2	3.2	3.2	3.2	3.2	1.6
77.5°	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2
80°	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	1.6	3.2
82.5°	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	3.2
85°	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.6
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°	144.1	144.1	144.1	144.1	144.1	144.1
2.5°	149.0	142.5	134.4	129.5	127.9	126.3
5°	142.5	129.5	119.8	113.3	111.7	111.7
7.5°	127.9	113.3	103.6	100.4	98.8	98.8
10°	111.7	98.8	90.7	87.4	89.1	89.1
12.5°	93.9	82.6	79.3	79.3	81.0	82.6
15°	76.1	69.6	69.6	71.2	74.5	76.1
17.5°	63.2	59.9	61.5	64.8	68.0	71.2
20°	51.8	51.8	55.1	59.9	64.8	68.0
22.5°	43.7	45.3	50.2	55.1	61.5	64.8
25°	37.2	40.5	45.3	53.4	59.9	61.5
27.5°	32.4	37.2	43.7	51.8	58.3	61.5
30°	27.5	34.0	42.1	50.2	58.3	61.5
31°	25.9	32.4	40.5	50.2	58.3	61.5
32°	24.3	32.4	40.5	50.2	58.3	61.5
33°	22.7	30.8	40.5	48.6	58.3	61.5
34°	21.1	30.8	40.5	50.2	58.3	61.5
35°	19.4	29.1	38.9	48.6	56.7	61.5
36°	17.8	29.1	38.9	48.6	58.3	61.5
37°	16.2	29.1	38.9	48.6	56.7	61.5
38°	16.2	27.5	37.2	48.6	56.7	61.5
39°	14.6	25.9	37.2	48.6	56.7	61.5
40°	13.0	25.9	35.6	47.0	56.7	61.5
41°	11.3	24.3	35.6	47.0	56.7	61.5
42°	9.7	24.3	35.6	47.0	56.7	61.5
43°	8.1	22.7	34.0	47.0	56.7	61.5
44°	8.1	22.7	34.0	47.0	56.7	61.5
45°	6.5	21.1	32.4	47.0	56.7	61.5
46°	6.5	21.1	32.4	45.3	56.7	61.5
47°	4.9	21.1	32.4	45.3	56.7	61.5
48°	4.9	19.4	32.4	45.3	56.7	61.5
49°	3.2	19.4	32.4	45.3	56.7	61.5
50°	3.2	19.4	30.8	45.3	56.7	61.5
51°	3.2	19.4	30.8	45.3	56.7	61.5
52°	3.2	17.8	30.8	45.3	56.7	61.5
53°	3.2	17.8	30.8	45.3	56.7	61.5
54°	3.2	17.8	29.1	45.3	56.7	61.5
55°	3.2	16.2	29.1	43.7	56.7	59.9
56°	3.2	16.2	29.1	43.7	56.7	59.9
57°	3.2	16.2	27.5	43.7	56.7	59.9
58°	3.2	14.6	27.5	42.1	55.1	59.9
59°	3.2	14.6	25.9	42.1	55.1	58.3
60°	3.2	13.0	25.9	40.5	53.4	58.3
62.5°	3.2	11.3	22.7	38.9	51.8	55.1
65°	3.2	9.7	21.1	35.6	50.2	53.4



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**CANDELA DISTRIBUTION (continued):**

	67.5°	90°	112.5°	135°	157.5°	180°
67.5°	3.2	9.7	19.4	34.0	47.0	51.8
70°	3.2	9.7	17.8	30.8	45.3	47.0
72.5°	4.9	9.7	16.2	29.1	42.1	43.7
75°	6.5	9.7	14.6	25.9	38.9	40.5
77.5°	6.5	9.7	13.0	22.7	34.0	35.6
80°	6.5	8.1	11.3	17.8	27.5	29.1
82.5°	6.5	8.1	8.1	14.6	21.1	22.7
85°	4.9	6.5	6.5	8.1	14.6	16.2
87.5°	4.9	6.5	3.2	4.9	6.5	6.5
90°	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)