

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: IRiS

Report Number: P1309378

Luminaire Tested: P3SQAS20R159035D010 E3SQCA451MB

Issue Date: 1/29/2026

Test Information

Test Method: LM-79-2019
Report Number: P1309378
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: IRiS
Catalog Number: P3SQAS20R159035D010 E3SQCA451MB
Description: 3in Adjustable LED luminaire with, R15 optic, 3500K CCT AND, 90CRI , E3SQCA451MB TRIM
Light Source: -
Ballast/Driver: -

Summary

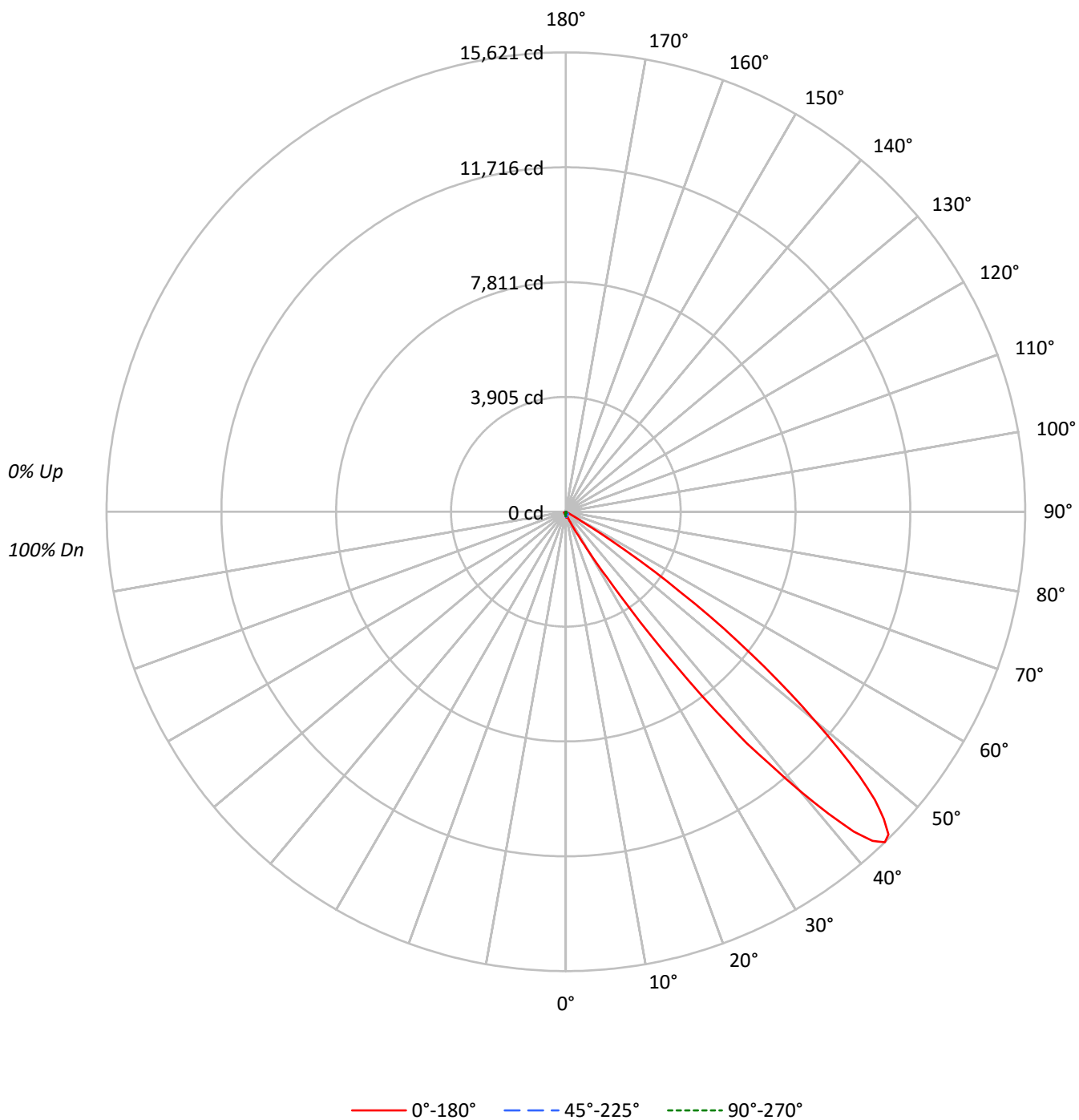
Lumens per Lamp: N/A
Luminaire Lumens: 1744.0 lumens
Efficiency: N/A
Efficacy: 60.6 lumens/watt
Spacing Criteria (0/90/45): 3.26 / 0.47 / 1.08
Luminous Opening: Rectangular (W 0.25' x L: 0.25' x H: 0')
CIE Type: Direct

Input Watts (W): 28.8
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

TEST NUMBER: P1309378

CATALOG NUMBER: P3SQAS20R159035D010 E3SQCA451MB

Luminous Intensity Polar Plot



TEST NUMBER: P1309378

CATALOG NUMBER: P3SQAS20R159035D010 E3SQCA451MB

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	10
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°	26660	26660	26660	26660	26660
5°	33072	29459	24048	21040	20746
10°	32545	25235	18555	16421	16718
15°	26976	17990	13337	13640	14567
20°	46845	14350	10190	11785	13379
25°	104420	17178	8266	10908	12561
30°	312279	21100	7259	10719	13145
35°	1202097	23758	6581	10975	13897
40°	2790205	20728	6250	11331	14861
45°	3779192	15661	5504	12275	16099
50°	2963208	9324	5600	13048	17710
55°	1422306	4174	5225	14112	19307
60°	129959	586	4788	14983	21562
65°	14181	0	4238	15608	23391
70°	3525	0	5237	16617	25379
75°	3460	1131	6920	18499	28946
80°	3471	3471	8629	18943	31043
85°	3359	3359	13832	17191	34383

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 3779192 cd/sqm

TEST NUMBER: P1309378

CATALOG NUMBER: P3SQAS20R159035D010 E3SQCA451MB

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	13.2	0.8
10°-20°	27.5	1.6
20°-30°	65.9	3.8
30°-40°	360.8	20.7
40°-50°	873.5	50.1
50°-60°	348.5	20.0
60°-70°	30.1	1.7
70°-80°	17.0	1.0
80°-90°	7.5	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°	106.6	6.1
0°-40°	467.4	26.8
0°-60°	1689.4	96.9
0°-90°	1744.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1744.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	155	155	155	155	155	
5°	191	170	139	122	120	18
15°	151	101	75	76	82	53
25°	550	90	44	57	66	331
35°	5718	113	31	52	66	4040
45°	15516	64	23	50	66	10946
55°	4737	14	17	47	64	4413
65°	35	0	10	38	57	89
75°	5	2	10	28	44	5
85°	2	2	7	9	17	1
90°	0	0	0	0	0	

TEST NUMBER: P1309378

CATALOG NUMBER: P3SQAS20R159035D010 E3SQCA451MB

CANDELA DISTRIBUTION (FULL):

	0°	2.5°	5°	7.5°	10°	12.5°	15°	17.5°	20°	22.5°	45°
0°	154.8	154.8	154.8	154.8	154.8	154.8	154.8	154.8	154.8	154.8	154.8
2.5°	173.9	173.9	175.6	173.9	173.9	173.9	173.9	172.2	172.2	172.2	166.9
5°	191.3	191.3	191.3	191.3	189.5	189.5	189.5	187.8	187.8	186.1	170.4
7.5°	198.2	198.2	196.5	196.5	194.8	194.8	193.0	191.3	189.5	187.8	163.5
10°	186.1	186.1	186.1	184.3	184.3	182.6	180.8	179.1	177.4	173.9	144.3
12.5°	165.2	165.2	166.9	165.2	163.5	161.7	158.2	156.5	154.8	151.3	120.0
15°	151.3	151.3	151.3	149.5	147.8	144.3	142.6	139.1	137.4	132.2	100.9
17.5°	193.0	193.0	191.3	187.8	180.8	175.6	166.9	160.0	151.3	140.9	86.9
20°	255.6	255.6	252.1	248.7	240.0	231.3	217.4	205.2	191.3	179.1	78.3
22.5°	370.4	375.6	365.2	353.0	340.8	320.0	300.8	281.7	257.4	236.5	80.0
25°	549.5	554.7	549.5	521.7	499.1	471.3	434.7	396.5	354.7	316.5	90.4
27.5°	890.3	893.8	885.1	817.3	780.8	707.7	643.4	580.8	511.2	441.7	99.1
30°	1570.3	1572.0	1516.3	1380.7	1260.7	1100.7	965.1	834.7	725.1	613.8	106.1
31°	2067.6	2018.9	1900.7	1737.2	1545.9	1330.3	1144.2	975.5	812.1	692.1	107.8
32°	2625.8	2618.8	2422.3	2138.9	1883.3	1613.7	1333.8	1118.1	930.3	766.9	109.6
33°	3364.8	3368.3	3058.8	2724.9	2305.8	1944.1	1577.2	1281.6	1055.5	855.6	113.0
34°	4519.5	4248.2	3884.8	3432.7	2862.3	2318.0	1841.5	1471.1	1168.6	940.8	113.0
35°	5717.6	5444.6	5044.6	4359.5	3577.0	2815.3	2156.3	1674.6	1304.2	1032.9	113.0
36°	7060.1	6828.8	6223.6	5349.0	4350.8	3284.8	2490.2	1909.3	1438.1	1116.4	111.3
37°	8510.3	8171.2	7500.0	6545.3	5209.8	3945.6	2897.1	2142.4	1572.0	1206.8	107.8
38°	9983.2	9677.2	8830.3	7673.9	6235.8	4642.9	3304.0	2366.7	1695.5	1274.6	102.6
39°	11099.6	10932.7	10092.8	8800.7	7054.8	5303.7	3723.1	2606.7	1825.9	1342.5	97.4
40°	12410.8	12141.2	11344.8	9746.7	8023.4	5976.7	4133.4	2818.8	1933.7	1396.4	92.2
41°	13607.1	13266.3	12261.2	10717.0	8799.0	6581.9	4523.0	3037.9	2020.6	1427.7	88.7
42°	14633.1	14236.6	13186.3	11548.2	9447.6	7065.3	4834.2	3194.4	2102.4	1453.7	83.5
43°	15297.4	14954.8	13921.9	12172.5	10002.3	7508.7	5124.6	3357.9	2152.8	1471.1	76.5
44°	15620.8	15274.8	14274.9	12563.8	10343.2	7774.8	5312.4	3470.9	2208.4	1493.7	71.3
45°	15516.5	15165.2	14198.4	12570.7	10449.2	7870.4	5392.4	3521.3	2238.0	1514.6	64.3
46°	15038.3	14791.4	13817.6	12243.8	10247.5	7767.8	5347.2	3483.1	2227.6	1514.6	57.4
47°	14367.1	14085.3	13158.5	11682.1	9758.9	7503.5	5164.6	3366.6	2163.2	1479.8	50.4
48°	13452.4	13212.4	12238.6	10790.1	9009.4	6927.9	4752.5	3177.0	2062.4	1412.0	43.5
49°	12304.7	11970.8	11064.8	9649.3	8032.1	6110.6	4211.7	2857.1	1900.7	1316.4	38.3
50°	11059.6	10647.5	9948.4	8506.9	7021.8	5239.4	3500.5	2415.4	1672.9	1191.2	34.8
51°	9840.6	9421.5	8755.5	7529.6	5943.7	4347.3	2824.0	1928.5	1377.2	1019.0	29.6
52°	8576.4	8225.1	7479.1	6515.8	5088.1	3523.1	2352.8	1631.1	1144.2	855.6	24.3
53°	7317.4	7077.5	6368.0	5392.4	4088.2	2877.9	1921.5	1396.4	998.1	732.1	19.1
54°	6056.7	5794.1	5255.1	4385.6	3295.3	2271.0	1629.4	1168.6	866.0	638.2	17.4
55°	4736.9	4601.2	4103.9	3344.0	2497.1	1812.0	1321.6	1005.1	725.1	533.9	13.9
56°	3648.3	3495.3	3041.4	2425.8	1855.4	1419.0	1069.4	820.8	613.8	446.9	10.4
57°	2389.3	2232.8	1932.0	1693.7	1351.2	1034.7	817.3	646.9	499.1	370.4	8.7
58°	1412.0	1269.4	1222.5	1043.4	900.8	702.5	603.4	481.7	368.7	292.1	5.2
59°	648.6	659.1	586.0	549.5	499.1	446.9	366.9	321.7	252.1	210.4	3.5
60°	377.3	356.5	347.8	311.3	276.5	245.2	220.8	194.8	158.2	135.6	1.7
62.5°	128.7	123.5	126.9	114.8	107.8	104.3	95.6	81.7	67.8	55.6	0.0
65°	34.8	34.8	33.0	31.3	29.6	27.8	26.1	22.6	20.9	17.4	0.0



TEST NUMBER: P1309378

CATALOG NUMBER: P3SQAS20R159035D010 E3SQCA451MB

CANDELA DISTRIBUTION (continued):

	0°	2.5°	5°	7.5°	10°	12.5°	15°	17.5°	20°	22.5°	45°
67.5°	12.2	12.2	10.4	10.4	8.7	8.7	7.0	7.0	5.2	5.2	0.0
70°	7.0	7.0	7.0	5.2	5.2	5.2	3.5	3.5	3.5	1.7	0.0
72.5°	5.2	5.2	5.2	5.2	5.2	5.2	3.5	3.5	3.5	1.7	1.7
75°	5.2	5.2	5.2	3.5	3.5	3.5	3.5	3.5	3.5	3.5	1.7
77.5°	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
80°	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	1.7	3.5
82.5°	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	3.5
85°	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.7
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

TEST NUMBER: P1309378

CATALOG NUMBER: P3SQAS20R159035D010 E3SQCA451MB

CANDELA DISTRIBUTION (continued):

	67.5°	90°	112.5°	135°	157.5°	180°
0°	154.8	154.8	154.8	154.8	154.8	154.8
2.5°	160.0	153.0	144.3	139.1	137.4	135.6
5°	153.0	139.1	128.7	121.7	120.0	120.0
7.5°	137.4	121.7	111.3	107.8	106.1	106.1
10°	120.0	106.1	97.4	93.9	95.6	95.6
12.5°	100.9	88.7	85.2	85.2	86.9	88.7
15°	81.7	74.8	74.8	76.5	80.0	81.7
17.5°	67.8	64.3	66.1	69.6	73.0	76.5
20°	55.6	55.6	59.1	64.3	69.6	73.0
22.5°	47.0	48.7	53.9	59.1	66.1	69.6
25°	40.0	43.5	48.7	57.4	64.3	66.1
27.5°	34.8	40.0	47.0	55.6	62.6	66.1
30°	29.6	36.5	45.2	53.9	62.6	66.1
31°	27.8	34.8	43.5	53.9	62.6	66.1
32°	26.1	34.8	43.5	53.9	62.6	66.1
33°	24.3	33.0	43.5	52.2	62.6	66.1
34°	22.6	33.0	43.5	53.9	62.6	66.1
35°	20.9	31.3	41.7	52.2	60.9	66.1
36°	19.1	31.3	41.7	52.2	62.6	66.1
37°	17.4	31.3	41.7	52.2	60.9	66.1
38°	17.4	29.6	40.0	52.2	60.9	66.1
39°	15.7	27.8	40.0	52.2	60.9	66.1
40°	13.9	27.8	38.3	50.4	60.9	66.1
41°	12.2	26.1	38.3	50.4	60.9	66.1
42°	10.4	26.1	38.3	50.4	60.9	66.1
43°	8.7	24.3	36.5	50.4	60.9	66.1
44°	8.7	24.3	36.5	50.4	60.9	66.1
45°	7.0	22.6	34.8	50.4	60.9	66.1
46°	7.0	22.6	34.8	48.7	60.9	66.1
47°	5.2	22.6	34.8	48.7	60.9	66.1
48°	5.2	20.9	34.8	48.7	60.9	66.1
49°	3.5	20.9	34.8	48.7	60.9	66.1
50°	3.5	20.9	33.0	48.7	60.9	66.1
51°	3.5	20.9	33.0	48.7	60.9	66.1
52°	3.5	19.1	33.0	48.7	60.9	66.1
53°	3.5	19.1	33.0	48.7	60.9	66.1
54°	3.5	19.1	31.3	48.7	60.9	66.1
55°	3.5	17.4	31.3	47.0	60.9	64.3
56°	3.5	17.4	31.3	47.0	60.9	64.3
57°	3.5	17.4	29.6	47.0	60.9	64.3
58°	3.5	15.7	29.6	45.2	59.1	64.3
59°	3.5	15.7	27.8	45.2	59.1	62.6
60°	3.5	13.9	27.8	43.5	57.4	62.6
62.5°	3.5	12.2	24.3	41.7	55.6	59.1
65°	3.5	10.4	22.6	38.3	53.9	57.4



TEST NUMBER: P1309378

CATALOG NUMBER: P3SQAS20R159035D010 E3SQCA451MB

CANDELA DISTRIBUTION (continued):

	67.5°	90°	112.5°	135°	157.5°	180°
67.5°	3.5	10.4	20.9	36.5	50.4	55.6
70°	3.5	10.4	19.1	33.0	48.7	50.4
72.5°	5.2	10.4	17.4	31.3	45.2	47.0
75°	7.0	10.4	15.7	27.8	41.7	43.5
77.5°	7.0	10.4	13.9	24.3	36.5	38.3
80°	7.0	8.7	12.2	19.1	29.6	31.3
82.5°	7.0	8.7	8.7	15.7	22.6	24.3
85°	5.2	7.0	7.0	8.7	15.7	17.4
87.5°	5.2	7.0	3.5	5.2	7.0	7.0
90°	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)