

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: CORELITE

Report Number: P845499

Luminaire Tested: SQ2R-FA-075D-830-UNV-STD-W-4

Issue Date: 6/14/2024

Test Information

Test Method: LM-79-2019
Report Number: P845499
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2308-131-11)
Test Lab: INNOVATION CENTER
Issue Date: 6/14/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ2R-FA-075D-830-UNV-STD-W-4
Description: CONTINUA SQ2 RECESSED, ASYMMETRIC LENS
750 LUMENS PER FOOT
Light Source: 3000K CCT, 80 CRI LEDS
Ballast/Driver: -

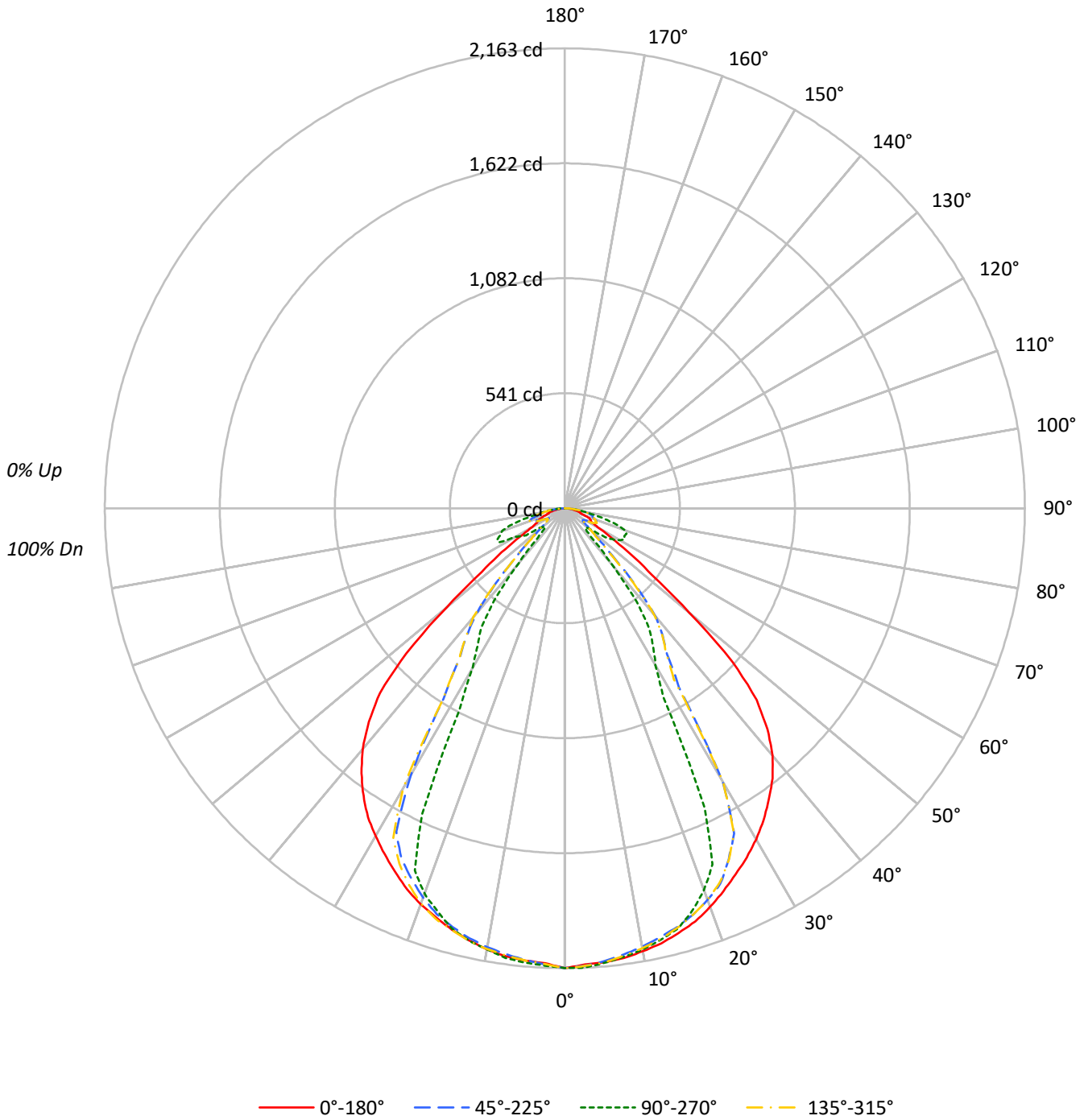
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3155.3 lumens
Efficiency: N/A
Efficacy: 118.2 lumens/watt
Spacing Criteria (0/90/45): 1.23 / 0.95 / 0.93
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 26.7
Input Voltage (V): 120
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	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	111	107	104	101	108	105	102	99	101	98	96	97	95	93	94	92	90	88				
2	103	97	91	87	101	95	90	86	92	87	84	88	85	82	86	83	80	78				
3	96	88	81	76	94	86	80	75	84	78	74	81	77	73	79	75	72	70				
4	90	80	73	68	88	79	72	67	77	71	66	75	70	66	73	68	65	63				
5	84	74	66	61	82	73	66	61	71	65	60	69	64	59	67	63	59	57				
6	79	68	61	55	77	67	60	55	65	59	55	64	58	54	62	58	54	52				
7	74	63	56	50	73	62	55	50	61	55	50	60	54	50	58	53	49	48				
8	70	59	51	46	69	58	51	46	57	50	46	56	50	46	55	49	46	44				
9	66	55	48	43	65	54	47	43	53	47	43	52	46	42	51	46	42	41				
10	63	51	44	40	61	51	44	40	50	44	40	49	43	39	48	43	39	38				

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	34920	34920	34920	34920
5°	34736	34789	34603	34762
10°	34683	34549	34549	34549
15°	34571	34216	34297	34216
20°	34302	32845	34050	33153
25°	33852	27720	33619	28301
30°	33540	15903	33176	16117
35°	32952	13663	32534	13470
40°	32039	7185	31145	7116
45°	29124	3092	28081	3092
50°	19216	3728	18231	3481
55°	10745	6888	10193	6244
60°	5793	9691	5690	8690
65°	5108	11778	5360	13398
70°	4773	14091	4541	14861
75°	4479	12108	4579	12514
80°	3794	8647	3794	9103
85°	3316	4835	3020	5743

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 29124 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	203.7	6.5
10°-20°	578.0	18.3
20°-30°	790.6	25.1
30°-40°	662.1	21.0
40°-50°	371.1	11.8
50°-60°	196.8	6.2
60°-70°	183.5	5.8
70°-80°	135.0	4.3
80°-90°	34.5	1.1
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°	1572.3	49.8
0°-40°	2234.4	70.8
0°-60°	2802.3	88.8
0°-90°	3155.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3155.3	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	2163	2163	2163	2163	2163	
5°	2143	2146	2135	2145	2143	204
15°	2068	2047	2052	2047	2068	583
25°	1900	1556	1887	1589	1900	877
35°	1672	693	1651	683	1672	1045
45°	1276	135	1230	135	1276	941
55°	382	245	362	222	382	360
65°	134	308	140	351	134	134
75°	72	194	73	201	72	74
85°	18	26	16	31	18	21
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
0°	2162.8	2162.8	2162.8	2162.8	2162.8	2162.8	2162.8	2162.8	2162.8	2162.8	2162.8
2.5°	2148.1	2188.9	2153.0	2148.1	2162.8	2159.5	2154.6	2174.2	2141.6	2174.2	2148.1
5°	2143.2	2180.7	2138.3	2126.9	2146.5	2133.4	2144.8	2167.7	2135.0	2164.4	2131.8
7.5°	2133.4	2167.7	2117.1	2108.9	2128.5	2117.1	2122.0	2153.0	2125.2	2144.8	2115.5
10°	2115.5	2144.8	2094.3	2089.4	2107.3	2095.9	2100.8	2133.4	2107.3	2125.2	2095.9
12.5°	2095.9	2117.1	2066.5	2064.9	2079.6	2073.1	2074.7	2100.8	2081.2	2099.1	2071.4
15°	2068.2	2089.4	2038.8	2030.6	2047.0	2040.4	2043.7	2068.2	2051.8	2063.3	2038.8
17.5°	2037.2	2053.5	2004.5	1986.6	1988.2	1996.4	2004.5	2033.9	2017.6	2032.3	2001.3
20°	1996.4	2016.0	1960.5	1914.8	1911.6	1919.7	1960.5	1989.9	1981.7	1998.0	1949.1
22.5°	1949.1	1960.5	1911.6	1826.8	1813.7	1821.9	1905.1	1940.9	1939.3	1949.1	1885.5
25°	1900.2	1913.2	1821.9	1714.2	1556.0	1704.4	1825.1	1887.1	1887.1	1896.9	1817.0
27.5°	1851.2	1854.5	1724.0	1154.8	998.2	1107.5	1720.7	1821.9	1834.9	1833.3	1715.9
30°	1799.0	1787.6	1485.9	888.9	853.0	875.9	1487.5	1753.4	1779.5	1761.5	1448.4
32.5°	1738.7	1701.2	999.8	799.2	771.5	791.1	954.2	1671.8	1722.4	1678.3	1061.8
35°	1671.8	1587.0	836.7	722.6	693.2	719.3	830.2	1559.3	1650.6	1546.2	864.5
37.5°	1603.3	1324.4	755.2	614.9	556.2	605.1	751.9	1319.5	1570.7	1264.1	758.4
40°	1520.1	980.3	662.2	422.4	340.9	398.0	657.3	934.6	1477.7	1008.0	645.9
42.5°	1409.2	828.6	499.1	230.0	176.2	207.1	473.0	815.5	1363.6	836.7	481.2
45°	1275.5	737.2	314.8	146.8	135.4	141.9	290.3	724.2	1229.8	707.9	321.3
47.5°	1071.6	592.1	213.7	124.0	133.7	124.0	207.1	574.1	1011.2	562.7	213.7
50°	765.0	438.8	156.6	125.6	148.4	125.6	151.7	424.1	725.8	464.8	154.9
52.5°	517.0	350.7	120.7	140.3	185.9	143.5	117.4	342.5	490.9	353.9	112.5
55°	381.7	290.3	102.8	181.0	244.7	185.9	102.8	282.2	362.1	278.9	99.5
57.5°	257.7	228.3	101.1	230.0	274.0	234.9	102.8	220.2	246.3	221.8	89.7
60°	179.4	171.3	115.8	247.9	300.1	251.2	117.4	164.7	176.2	163.1	97.9
62.5°	140.3	125.6	145.2	274.0	314.8	264.2	148.4	119.1	148.4	112.5	110.9
65°	133.7	86.4	164.7	272.4	308.3	272.4	166.4	81.6	140.3	88.1	146.8
67.5°	125.6	65.2	161.5	269.1	313.2	272.4	156.6	62.0	120.7	60.3	143.5
70°	101.1	57.1	150.1	275.6	298.5	265.9	150.1	55.5	96.2	53.8	176.2
72.5°	79.9	53.8	137.0	249.5	256.1	239.8	138.6	53.8	81.6	47.3	163.1
75°	71.8	53.8	133.7	203.9	194.1	194.1	130.5	52.2	73.4	48.9	128.9
77.5°	57.1	48.9	115.8	141.9	133.7	133.7	114.2	47.3	53.8	44.0	109.3
80°	40.8	44.0	91.3	97.9	93.0	93.0	88.1	42.4	40.8	40.8	86.4
82.5°	29.4	35.9	65.2	65.2	62.0	60.3	63.6	35.9	29.4	32.6	62.0
85°	17.9	26.1	37.5	31.0	26.1	24.5	35.9	24.5	16.3	24.5	35.9
87.5°	8.2	14.7	6.5	6.5	6.5	6.5	6.5	14.7	8.2	13.0	8.2
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):

	247.5°	270°	292.5°	315°	337.5°	360°
0°	2162.8	2162.8	2162.8	2162.8	2162.8	2162.8
2.5°	2141.6	2153.0	2153.0	2146.5	2179.1	2148.1
5°	2123.6	2144.8	2135.0	2135.0	2167.7	2143.2
7.5°	2112.2	2133.4	2123.6	2120.4	2153.0	2133.4
10°	2092.6	2107.3	2100.8	2105.7	2135.0	2115.5
12.5°	2064.9	2082.8	2076.3	2084.5	2110.6	2095.9
15°	2032.3	2047.0	2050.2	2053.5	2084.5	2068.2
17.5°	1981.7	1988.2	2006.2	2024.1	2055.1	2037.2
20°	1919.7	1929.5	1939.3	1978.5	2016.0	1996.4
22.5°	1849.6	1843.1	1869.2	1916.5	1965.4	1949.1
25°	1714.2	1588.6	1727.3	1843.1	1905.1	1900.2
27.5°	1259.2	1076.5	1236.3	1746.8	1844.7	1851.2
30°	939.5	864.5	937.8	1518.5	1776.2	1799.0
32.5°	807.4	761.7	799.2	1065.1	1689.8	1738.7
35°	719.3	683.4	719.3	864.5	1570.7	1671.8
37.5°	613.3	544.8	614.9	766.6	1329.3	1603.3
40°	430.6	337.6	417.5	668.7	1004.7	1520.1
42.5°	251.2	187.6	234.9	490.9	831.8	1409.2
45°	154.9	135.4	148.4	318.1	704.6	1275.5
47.5°	122.3	125.6	122.3	212.0	561.1	1071.6
50°	115.8	138.6	115.8	154.9	446.9	765.0
52.5°	128.9	153.3	127.2	114.2	345.8	517.0
55°	141.9	221.8	143.5	99.5	269.1	381.7
57.5°	202.2	244.7	205.5	93.0	220.2	257.7
60°	208.8	269.1	207.1	99.5	161.5	179.4
62.5°	256.1	349.0	256.1	117.4	109.3	140.3
65°	318.1	350.7	321.3	145.2	84.8	133.7
67.5°	303.4	327.8	300.1	150.1	58.7	125.6
70°	296.8	314.8	293.6	177.8	53.8	101.1
72.5°	272.4	270.8	265.9	161.5	47.3	79.9
75°	215.3	200.6	207.1	141.9	48.9	71.8
77.5°	141.9	135.4	137.0	112.5	44.0	57.1
80°	101.1	97.9	96.2	91.3	40.8	40.8
82.5°	68.5	65.2	63.6	65.2	32.6	29.4
85°	34.3	31.0	29.4	40.8	24.5	17.9
87.5°	8.2	8.2	6.5	8.2	11.4	8.2
90°	0.0	0.0	0.0	0.0	0.0	0.0

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CIE UGR TABLE:

Reflectances:											
Ceiling		0.7	0.7	0.5	0.5	0.3	0.7	0.7	0.5	0.5	0.3
Wall		0.5	0.3	0.5	0.3	0.3	0.5	0.3	0.5	0.3	0.3
Reference plane		0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Room dimensions		Viewed crosswise					Viewed endwise				
X=2H	Y=2H	16.33	17.64	16.69	17.95	18.26	15.17	16.48	15.54	16.79	17.11
	3H	17.05	18.22	17.43	18.55	18.91	21.37	22.54	21.75	22.87	23.24
	4H	17.48	18.57	17.88	18.92	19.30	22.67	23.77	23.07	24.12	24.50
	6H	17.85	18.86	18.27	19.23	19.62	23.30	24.31	23.71	24.68	25.07
	8H	17.98	18.94	18.41	19.33	19.73	23.43	24.39	23.86	24.78	25.18
	12H	18.07	18.98	18.50	19.36	19.79	23.48	24.40	23.92	24.78	25.21
4H	2H	16.77	17.86	17.17	18.21	18.60	15.75	16.85	16.15	17.20	17.58
	3H	17.79	18.70	18.20	19.10	19.50	22.12	23.03	22.54	23.44	23.84
	4H	18.36	19.18	18.79	19.60	20.04	23.59	24.41	24.02	24.83	25.27
	6H	18.86	19.57	19.32	20.01	20.48	24.35	25.06	24.81	25.50	25.97
	8H	19.03	19.70	19.50	20.14	20.61	24.52	25.18	24.99	25.63	26.10
	12H	19.17	19.76	19.66	20.24	20.71	24.60	25.19	25.09	25.67	26.14
8H	4H	19.49	20.15	19.96	20.60	21.07	23.74	24.40	24.21	24.85	25.32
	6H	20.11	20.65	20.61	21.15	21.63	24.63	25.17	25.13	25.67	26.15
	8H	20.35	20.83	20.87	21.35	21.84	24.88	25.36	25.40	25.88	26.37
	12H	20.54	20.97	21.06	21.46	22.03	25.02	25.45	25.53	25.94	26.51
12H	4H	19.65	20.24	20.14	20.72	21.20	23.72	24.31	24.20	24.79	25.26
	6H	20.38	20.87	20.91	21.39	21.88	24.64	25.12	25.16	25.64	26.13
	8H	20.71	21.13	21.22	21.63	22.20	24.94	25.36	25.45	25.86	26.43