

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: P845554

Luminaire Tested: SQ2R-PC3-100D-835-UNV-STD-W-4

Issue Date: 6/14/2024

Test Information

Test Method: LM-79-2019
Report Number: P845554
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2308-131-6)
Test Lab: INNOVATION CENTER
Issue Date: 6/14/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ2R-PC3-100D-835-UNV-STD-W-4
Description: CORELITE SQ2R RECESSED LED LUMINAIRE WITH PERCEIVE PYRAMID CONTINUOUS LENS
1000 LUMENS PER FOOT
Light Source: 3500K CCT, 80 CRI LEDS
Ballast/Driver: -

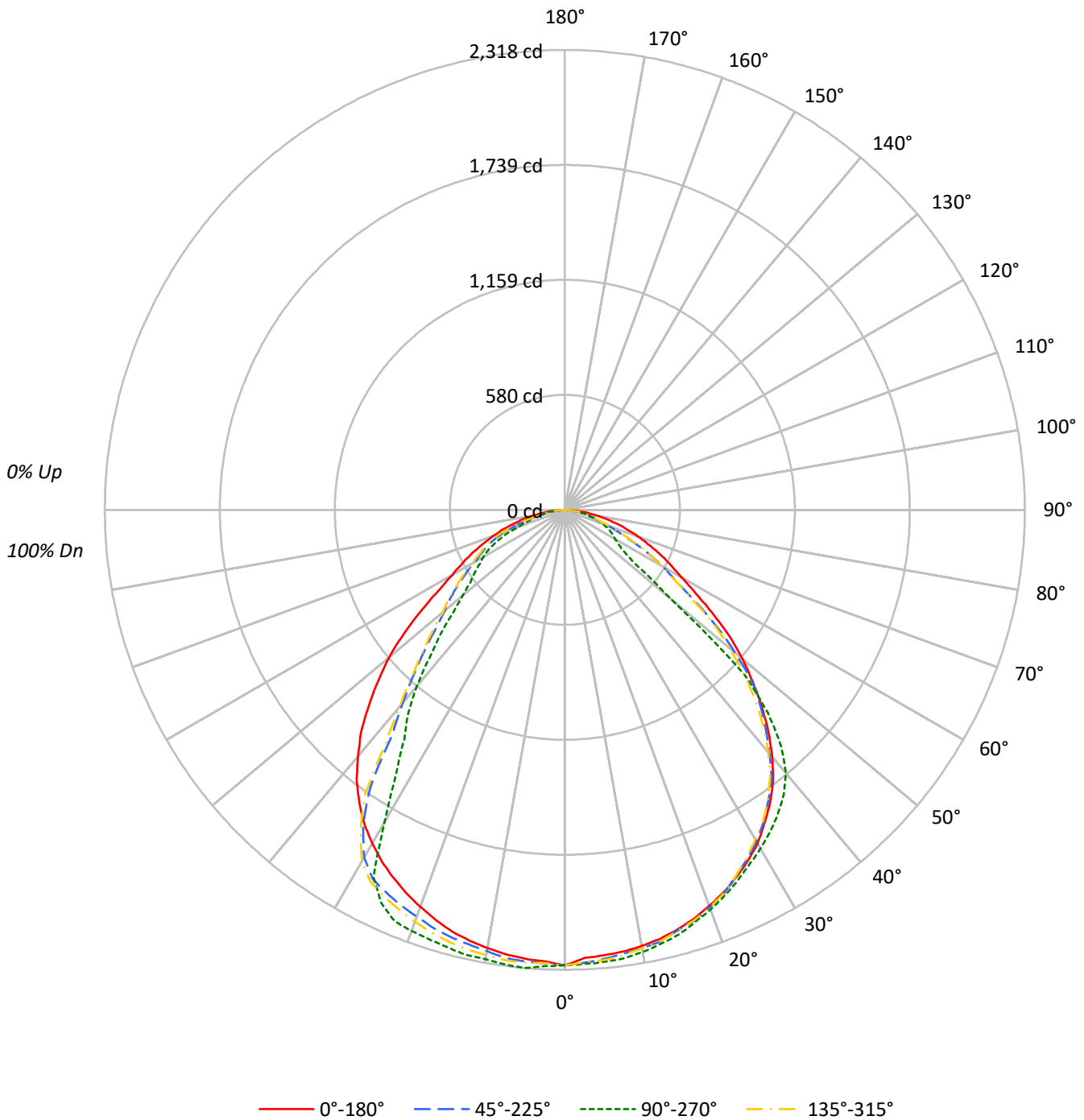
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5147.3 lumens
Efficiency: N/A
Efficacy: 136.9 lumens/watt
Spacing Criteria (0/90/45): 1.25 / 1.21 / 1.25
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 37.6
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: 0.9969
Total Harmonic Distortion (THDi): 0.066
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: 3 HR
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			100	
1	110	106	102	99	108	104	100	97	100	97	94	96	94	91	92	90	89	87			87	
2	101	94	88	83	99	92	87	82	89	84	80	86	82	78	83	80	77	75			75	
3	93	84	77	71	91	83	76	70	80	74	69	77	72	68	74	70	67	65			65	
4	86	75	67	61	84	74	67	61	72	65	60	69	64	59	67	63	59	57			57	
5	80	68	60	54	78	67	59	54	65	58	53	63	57	52	61	56	52	50			50	
6	74	62	54	48	72	61	53	47	59	52	47	58	51	47	56	51	46	44			44	
7	69	57	48	43	67	56	48	42	54	47	42	53	47	42	52	46	42	40			40	
8	65	52	44	38	63	51	44	38	50	43	38	49	42	38	48	42	38	36			36	
9	60	48	40	35	59	47	40	35	46	39	35	45	39	34	44	38	34	33			33	
10	57	44	37	32	56	44	37	32	43	36	32	42	36	31	41	35	31	30			30	

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	37069	37069	37069	37069
5°	36535	37068	36820	37567
10°	36598	37102	36777	37713
15°	36615	37056	36762	38156
20°	36507	36847	36582	38807
25°	36405	36717	36444	38947
30°	36215	36748	36174	33801
35°	35562	36904	35562	27776
40°	34279	36547	34142	24426
45°	32027	33029	31926	20199
50°	29386	17422	28999	16817
55°	25579	10072	24715	15631
60°	21829	9426	21122	15309
65°	20210	9643	19538	14506
70°	18548	9427	18028	11500
75°	16981	8490	16432	10405
80°	15100	7550	14282	10404
85°	11393	4057	10578	5280

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 33029 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	217.7	4.2
10°-20°	628.9	12.2
20°-30°	961.0	18.7
30°-40°	1086.1	21.1
40°-50°	949.4	18.4
50°-60°	628.2	12.2
60°-70°	410.4	8.0
70°-80°	214.8	4.2
80°-90°	50.7	1.0
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°	1807.7	35.1
0°-40°	2893.8	56.2
0°-60°	4471.4	86.9
0°-90°	5147.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5147.3	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	2296	2296	2296	2296	2296	
5°	2254	2287	2272	2318	2254	215
15°	2190	2217	2199	2283	2190	618
25°	2044	2061	2046	2186	2044	942
35°	1804	1872	1804	1409	1804	1124
45°	1403	1446	1398	885	1403	1080
55°	909	358	878	555	909	816
65°	529	252	511	380	529	524
75°	272	136	263	167	272	289
85°	62	22	57	28	62	75
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°	2295.9	2295.9	2295.9	2295.9	2295.9	2295.9	2295.9	2295.9	2295.9	2295.9	2295.9
2.5°	2260.8	2317.9	2284.9	2282.7	2291.5	2293.7	2282.7	2306.9	2278.3	2309.1	2287.1
5°	2254.2	2311.3	2271.8	2267.4	2287.1	2280.5	2278.3	2300.3	2271.8	2295.9	2284.9
7.5°	2245.4	2298.1	2256.4	2254.2	2280.5	2271.8	2263.0	2289.3	2260.8	2287.1	2278.3
10°	2232.3	2278.3	2243.2	2245.4	2263.0	2254.2	2245.4	2267.4	2243.2	2276.2	2258.6
12.5°	2214.7	2260.8	2227.9	2221.3	2241.0	2225.7	2225.7	2243.2	2223.5	2258.6	2243.2
15°	2190.5	2236.6	2194.9	2199.3	2216.9	2201.5	2197.1	2219.1	2199.3	2234.4	2227.9
17.5°	2162.0	2201.5	2170.8	2173.0	2179.6	2173.0	2168.6	2186.2	2166.4	2203.7	2208.1
20°	2124.7	2170.8	2131.3	2131.3	2144.5	2126.9	2131.3	2146.6	2129.1	2173.0	2181.8
22.5°	2087.4	2131.3	2094.0	2094.0	2104.9	2080.8	2091.8	2102.8	2089.6	2137.9	2157.6
25°	2043.5	2078.6	2036.9	2050.1	2061.0	2039.1	2036.9	2054.5	2045.7	2094.0	2129.1
27.5°	1995.2	2025.9	1986.4	2004.0	2015.0	1999.6	1979.8	2001.8	1997.4	2052.3	2096.2
30°	1942.5	1971.1	1931.5	1955.7	1971.1	1949.1	1918.4	1938.1	1940.3	2004.0	2021.5
32.5°	1872.3	1900.8	1863.5	1903.0	1925.0	1894.2	1859.1	1870.1	1878.9	1942.5	1892.0
35°	1804.2	1817.4	1788.9	1839.4	1872.3	1835.0	1782.3	1795.5	1804.2	1876.7	1712.1
37.5°	1723.0	1723.0	1712.1	1766.9	1810.8	1756.0	1698.9	1705.5	1723.0	1784.5	1426.7
40°	1626.4	1613.3	1602.3	1674.7	1734.0	1661.6	1593.5	1595.7	1619.9	1635.2	1270.9
42.5°	1518.9	1503.5	1499.1	1576.0	1611.1	1551.8	1481.6	1483.8	1518.9	1428.9	1126.0
45°	1402.6	1396.0	1391.6	1444.3	1446.5	1409.2	1358.7	1369.6	1398.2	1233.6	996.5
47.5°	1284.0	1279.6	1277.5	1235.8	1227.0	1200.6	1227.0	1251.1	1275.3	1029.4	878.0
50°	1169.9	1139.2	1121.6	968.0	693.6	952.6	1079.9	1121.6	1154.5	897.7	790.2
52.5°	1044.8	1018.5	963.6	739.7	439.0	735.3	946.0	998.7	1018.5	816.5	724.3
55°	908.7	908.7	790.2	474.1	357.8	498.3	777.0	893.3	878.0	730.9	649.7
57.5°	779.2	805.5	656.3	318.3	316.1	318.3	651.9	794.6	750.7	662.9	588.2
60°	676.0	715.5	568.5	283.1	291.9	278.8	557.5	706.8	654.1	590.4	520.2
62.5°	599.2	632.1	469.7	259.0	274.4	254.6	471.9	629.9	579.5	537.8	474.1
65°	529.0	561.9	370.9	237.1	252.4	232.7	381.9	557.5	511.4	478.5	432.4
67.5°	454.4	485.1	294.1	215.1	226.1	212.9	307.3	485.1	443.4	421.4	377.5
70°	392.9	428.0	223.9	193.2	199.7	191.0	239.2	419.2	381.9	373.1	322.7
72.5°	331.4	360.0	173.4	171.2	169.0	166.8	175.6	357.8	322.7	307.3	250.2
75°	272.2	291.9	142.7	142.7	136.1	138.3	142.7	291.9	263.4	250.2	177.8
77.5°	215.1	230.5	116.3	111.9	105.4	105.4	114.1	223.9	208.5	193.2	118.5
80°	162.4	166.8	87.8	83.4	81.2	81.2	87.8	162.4	153.6	138.3	92.2
82.5°	109.7	92.2	59.3	61.5	59.3	59.3	57.1	94.4	103.2	70.2	68.0
85°	61.5	41.7	37.3	28.5	21.9	24.1	35.1	39.5	57.1	37.3	43.9
87.5°	21.9	17.6	6.6	8.8	6.6	6.6	6.6	17.6	17.6	13.2	6.6
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):

	247.5°	270°	292.5°	315°	337.5°	360°
0°	2295.9	2295.9	2295.9	2295.9	2295.9	2295.9
2.5°	2289.3	2302.5	2300.3	2287.1	2315.7	2260.8
5°	2291.5	2317.9	2304.7	2291.5	2309.1	2254.2
7.5°	2280.5	2311.3	2295.9	2289.3	2306.9	2245.4
10°	2274.0	2300.3	2287.1	2278.3	2295.9	2232.3
12.5°	2267.4	2298.1	2280.5	2269.6	2280.5	2214.7
15°	2249.8	2282.7	2271.8	2254.2	2254.2	2190.5
17.5°	2236.6	2269.6	2258.6	2234.4	2223.5	2162.0
20°	2227.9	2258.6	2243.2	2208.1	2190.5	2124.7
22.5°	2208.1	2243.2	2219.1	2181.8	2157.6	2087.4
25°	2173.0	2186.2	2184.0	2151.0	2111.5	2043.5
27.5°	2080.8	2087.4	2094.0	2115.9	2072.0	1995.2
30°	1920.6	1813.0	1946.9	2045.7	2023.7	1942.5
32.5°	1617.7	1582.6	1661.6	1916.2	1960.1	1872.3
35°	1450.9	1409.2	1475.0	1758.1	1887.6	1804.2
37.5°	1299.4	1299.4	1317.0	1477.2	1806.4	1723.0
40°	1191.9	1158.9	1207.2	1295.0	1683.5	1626.4
42.5°	1018.5	1007.5	1038.2	1141.4	1496.9	1518.9
45°	897.7	884.6	913.1	1011.9	1295.0	1402.6
47.5°	805.5	757.3	820.9	902.1	1097.5	1284.0
50°	719.9	669.5	730.9	801.2	930.7	1169.9
52.5°	645.3	599.2	660.7	737.5	845.1	1044.8
55°	568.5	555.3	583.9	665.1	761.6	908.7
57.5°	504.8	509.2	513.6	601.4	684.8	779.2
60°	465.3	474.1	471.9	540.0	621.2	676.0
62.5°	425.8	430.2	430.2	485.1	559.7	599.2
65°	379.7	379.7	384.1	445.6	507.0	529.0
67.5°	329.2	320.5	335.8	392.9	450.0	454.4
70°	259.0	243.6	270.0	340.2	401.7	392.9
72.5°	186.6	195.3	191.0	267.8	344.6	331.4
75°	153.6	166.8	155.8	191.0	281.0	272.2
77.5°	129.5	140.5	129.5	122.9	226.1	215.1
80°	103.2	111.9	103.2	94.4	166.8	162.4
82.5°	74.6	76.8	74.6	70.2	109.7	109.7
85°	35.1	28.5	39.5	46.1	43.9	61.5
87.5°	6.6	6.6	6.6	8.8	24.1	21.9
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	22.78	24.26	23.14	24.58	24.89	20.28	21.76	20.64	22.08	22.39
	3H	24.42	25.75	24.79	26.07	26.44	21.76	23.09	22.14	23.42	23.78
	4H	25.02	26.26	25.42	26.61	26.99	22.21	23.46	22.61	23.81	24.19
	6H	25.45	26.60	25.86	26.96	27.36	22.60	23.75	23.01	24.12	24.51
	8H	25.57	26.67	26.00	27.06	27.46	22.72	23.81	23.15	24.20	24.61
	12H	25.64	26.68	26.07	27.07	27.50	22.76	23.81	23.19	24.19	24.62
4H	2H	23.05	24.29	23.45	24.64	25.02	21.09	22.34	21.49	22.68	23.06
	3H	24.94	25.97	25.35	26.37	26.78	22.73	23.76	23.14	24.17	24.57
	4H	25.69	26.62	26.12	27.03	27.47	23.24	24.17	23.67	24.58	25.02
	6H	26.27	27.08	26.73	27.52	27.98	23.71	24.52	24.17	24.96	25.42
	8H	26.45	27.20	26.91	27.65	28.11	23.86	24.62	24.33	25.06	25.53
	12H	26.55	27.22	27.03	27.70	28.17	23.93	24.60	24.41	25.08	25.55
8H	4H	25.76	26.51	26.22	26.95	27.42	23.55	24.30	24.02	24.75	25.22
	6H	26.44	27.07	26.94	27.56	28.04	24.10	24.72	24.60	25.21	25.69
	8H	26.68	27.24	27.20	27.75	28.24	24.30	24.86	24.82	25.37	25.86
	12H	26.83	27.32	27.34	27.82	28.38	24.41	24.91	24.92	25.40	25.97
12H	4H	25.74	26.41	26.22	26.89	27.36	23.59	24.26	24.07	24.74	25.21
	6H	26.43	26.99	26.94	27.50	27.98	24.15	24.71	24.66	25.22	25.71
	8H	26.70	27.20	27.22	27.69	28.26	24.40	24.89	24.91	25.38	25.95