

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: P845562

Luminaire Tested: SQ2R-PC3-125D-930-UNV-STD-W-4

Issue Date: 6/14/2024

**Test Information**

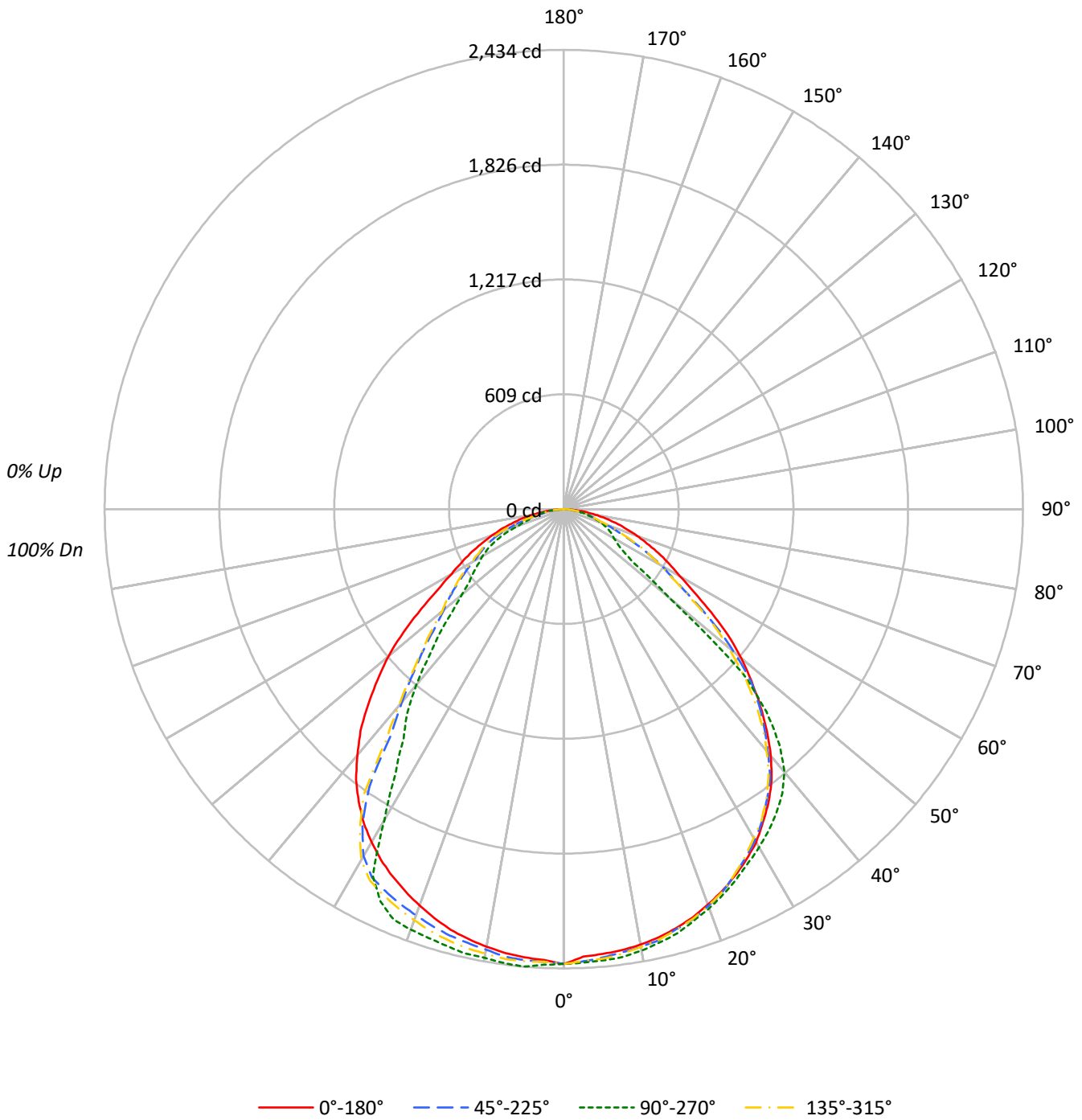
Test Method: LM-79-2019  
Report Number: P845562  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2308-131-6)  
Test Lab: INNOVATION CENTER  
Issue Date: 6/14/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ2R-PC3-125D-930-UNV-STD-W-4  
Description: CORELITE SQ2R RECESSED LED LUMINAIRE WITH PERCEIVE PYRAMID CONTINUOUS LENS  
1250 LUMENS PER FOOT  
Light Source: 3000K CCT, 90 CRI LEDS  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 5404.1 lumens  
Efficiency: N/A  
Efficacy: 109.8 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): 49.2  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: 0.9979  
Total Harmonic Distortion (THDi): 0.0523  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: 3 HR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT

TEST NUMBER: P845562  
CATALOG NUMBER: SQ2R-PC3-125D-930-UNV-STD-W-4

### Luminous Intensity Polar Plot





TEST NUMBER: P845562

CATALOG NUMBER: SQ2R-PC3-125D-930-UNV-STD-W-4

**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°	38920	38920	38920	38920
5°	38358	38919	38657	39441
10°	38423	38953	38613	39595
15°	38444	38905	38598	40060
20°	38328	38685	38407	40744
25°	38222	38550	38263	40891
30°	38024	38581	37981	35488
35°	37337	38745	37337	29162
40°	35991	38370	35845	25646
45°	33625	34675	33518	21206
50°	30853	18291	30449	17656
55°	26857	10573	25948	16411
60°	22921	9897	22175	16075
65°	21219	10124	20512	15232
70°	19473	9899	18930	12076
75°	17829	8914	17249	10923
80°	15853	7931	14998	10925
85°	11949	4261	11097	5558

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 34675 cd/sqm



TEST NUMBER: P845562

CATALOG NUMBER: SQ2R-PC3-125D-930-UNV-STD-W-4

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	228.6	4.2
10°-20°	660.3	12.2
20°-30°	1009.0	18.7
30°-40°	1140.3	21.1
40°-50°	996.7	18.4
50°-60°	659.5	12.2
60°-70°	430.9	8.0
70°-80°	225.5	4.2
80°-90°	53.2	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°	1897.9	35.1
0°-40°	3038.2	56.2
0°-60°	4694.5	86.9
0°-90°	5404.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5404.1	100.0

**CANDELA DISTRIBUTION:**

	0°	90°	180°	270°	360°	Flux
0°	2410	2410	2410	2410	2410	
5°	2367	2401	2385	2434	2367	225
15°	2300	2328	2309	2397	2300	649
25°	2146	2164	2148	2295	2146	989
35°	1894	1966	1894	1480	1894	1181
45°	1473	1519	1468	929	1473	1134
55°	954	376	922	583	954	856
65°	555	265	537	399	555	550
75°	286	143	276	175	286	303
85°	64	23	60	30	64	78
90°	0	0	0	0	0	



TEST NUMBER: P845562

CATALOG NUMBER: SQ2R-PC3-125D-930-UNV-STD-W-4

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
0°	2410.5	2410.5	2410.5	2410.5	2410.5	2410.5	2410.5	2410.5	2410.5	2410.5	2410.5
2.5°	2373.6	2433.5	2399.0	2396.6	2405.9	2408.2	2396.6	2422.0	2392.0	2424.3	2401.3
5°	2366.7	2426.6	2385.1	2380.5	2401.3	2394.3	2392.0	2415.1	2385.1	2410.5	2399.0
7.5°	2357.5	2412.8	2369.0	2366.7	2394.3	2385.1	2375.9	2403.6	2373.6	2401.3	2392.0
10°	2343.6	2392.0	2355.2	2357.5	2375.9	2366.7	2357.5	2380.5	2355.2	2389.7	2371.3
12.5°	2325.2	2373.6	2339.0	2332.1	2352.9	2336.7	2336.7	2355.2	2334.4	2371.3	2355.2
15°	2299.9	2348.3	2304.5	2309.1	2327.5	2311.4	2306.8	2329.8	2309.1	2345.9	2339.0
17.5°	2269.9	2311.4	2279.1	2281.4	2288.3	2281.4	2276.8	2295.3	2274.5	2313.7	2318.3
20°	2230.7	2279.1	2237.6	2237.6	2251.5	2233.0	2237.6	2253.8	2235.3	2281.4	2290.6
22.5°	2191.6	2237.6	2198.5	2198.5	2210.0	2184.6	2196.2	2207.7	2193.9	2244.6	2265.3
25°	2145.5	2182.3	2138.5	2152.4	2163.9	2140.9	2138.5	2157.0	2147.8	2198.5	2235.3
27.5°	2094.8	2127.0	2085.5	2104.0	2115.5	2099.4	2078.6	2101.7	2097.1	2154.7	2200.8
30°	2039.5	2069.4	2027.9	2053.3	2069.4	2046.4	2014.1	2034.8	2037.2	2104.0	2122.4
32.5°	1965.7	1995.7	1956.5	1998.0	2021.0	1988.8	1951.9	1963.4	1972.6	2039.5	1986.5
35°	1894.3	1908.1	1878.1	1931.1	1965.7	1926.5	1871.2	1885.1	1894.3	1970.3	1797.5
37.5°	1809.0	1809.0	1797.5	1855.1	1901.2	1843.6	1783.7	1790.6	1809.0	1873.5	1497.9
40°	1707.6	1693.8	1682.3	1758.3	1820.5	1744.5	1673.0	1675.3	1700.7	1716.8	1334.3
42.5°	1594.7	1578.6	1574.0	1654.6	1691.5	1629.3	1555.5	1557.8	1594.7	1500.2	1182.2
45°	1472.6	1465.6	1461.0	1516.3	1518.6	1479.5	1426.5	1438.0	1467.9	1295.1	1046.2
47.5°	1348.1	1343.5	1341.2	1297.4	1288.2	1260.5	1288.2	1313.5	1338.9	1080.8	921.8
50°	1228.3	1196.0	1177.6	1016.3	728.2	1000.1	1133.8	1177.6	1212.2	942.5	829.6
52.5°	1096.9	1069.3	1011.7	776.6	460.9	772.0	993.2	1048.5	1069.3	857.3	760.5
55°	954.1	954.1	829.6	497.8	375.6	523.1	815.8	937.9	921.8	767.4	682.1
57.5°	818.1	845.7	689.0	334.1	331.8	334.1	684.4	834.2	788.1	695.9	617.6
60°	709.8	751.3	596.9	297.3	306.5	292.7	585.3	742.0	686.7	619.9	546.2
62.5°	629.1	663.7	493.2	271.9	288.1	267.3	495.5	661.4	608.4	564.6	497.8
65°	555.4	589.9	389.5	248.9	265.0	244.3	401.0	585.3	536.9	502.4	454.0
67.5°	477.0	509.3	308.8	225.8	237.4	223.5	322.6	509.3	465.5	442.5	396.4
70°	412.5	449.4	235.1	202.8	209.7	200.5	251.2	440.2	401.0	391.8	338.8
72.5°	348.0	377.9	182.1	179.7	177.4	175.1	184.4	375.6	338.8	322.6	262.7
75°	285.8	306.5	149.8	149.8	142.9	145.2	149.8	306.5	276.5	262.7	186.7
77.5°	225.8	242.0	122.1	117.5	110.6	110.6	119.8	235.1	218.9	202.8	124.4
80°	170.5	175.1	92.2	87.6	85.3	85.3	92.2	170.5	161.3	145.2	96.8
82.5°	115.2	96.8	62.2	64.5	62.2	62.2	59.9	99.1	108.3	73.7	71.4
85°	64.5	43.8	39.2	30.0	23.0	25.3	36.9	41.5	59.9	39.2	46.1
87.5°	23.0	18.4	6.9	9.2	6.9	6.9	6.9	18.4	18.4	13.8	6.9
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: P845562

CATALOG NUMBER: SQ2R-PC3-125D-930-UNV-STD-W-4

**CANDELA DISTRIBUTION (continued):**

	247.5°	270°	292.5°	315°	337.5°	360°
0°	2410.5	2410.5	2410.5	2410.5	2410.5	2410.5
2.5°	2403.6	2417.4	2415.1	2401.3	2431.2	2373.6
5°	2405.9	2433.5	2419.7	2405.9	2424.3	2366.7
7.5°	2394.3	2426.6	2410.5	2403.6	2422.0	2357.5
10°	2387.4	2415.1	2401.3	2392.0	2410.5	2343.6
12.5°	2380.5	2412.8	2394.3	2382.8	2394.3	2325.2
15°	2362.1	2396.6	2385.1	2366.7	2366.7	2299.9
17.5°	2348.3	2382.8	2371.3	2345.9	2334.4	2269.9
20°	2339.0	2371.3	2355.2	2318.3	2299.9	2230.7
22.5°	2318.3	2355.2	2329.8	2290.6	2265.3	2191.6
25°	2281.4	2295.3	2292.9	2258.4	2216.9	2145.5
27.5°	2184.6	2191.6	2198.5	2221.5	2175.4	2094.8
30°	2016.4	1903.5	2044.1	2147.8	2124.7	2039.5
32.5°	1698.4	1661.5	1744.5	2011.8	2057.9	1965.7
35°	1523.3	1479.5	1548.6	1845.9	1981.8	1894.3
37.5°	1364.2	1364.2	1382.7	1550.9	1896.6	1809.0
40°	1251.3	1216.8	1267.5	1359.6	1767.5	1707.6
42.5°	1069.3	1057.8	1090.0	1198.3	1571.6	1594.7
45°	942.5	928.7	958.7	1062.4	1359.6	1472.6
47.5°	845.7	795.0	861.9	947.1	1152.2	1348.1
50°	755.9	702.9	767.4	841.1	977.1	1228.3
52.5°	677.5	629.1	693.6	774.3	887.2	1096.9
55°	596.9	583.0	613.0	698.3	799.7	954.1
57.5°	530.0	534.6	539.2	631.4	719.0	818.1
60°	488.5	497.8	495.5	566.9	652.2	709.8
62.5°	447.1	451.7	451.7	509.3	587.6	629.1
65°	398.7	398.7	403.3	467.8	532.3	555.4
67.5°	345.7	336.5	352.6	412.5	472.4	477.0
70°	271.9	255.8	283.4	357.2	421.7	412.5
72.5°	195.9	205.1	200.5	281.1	361.8	348.0
75°	161.3	175.1	163.6	200.5	295.0	285.8
77.5°	136.0	147.5	136.0	129.1	237.4	225.8
80°	108.3	117.5	108.3	99.1	175.1	170.5
82.5°	78.4	80.7	78.4	73.7	115.2	115.2
85°	36.9	30.0	41.5	48.4	46.1	64.5
87.5°	6.9	6.9	6.9	9.2	25.3	23.0
90°	0.0	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P845562

CATALOG NUMBER: SQ2R-PC3-125D-930-UNV-STD-W-4

**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	22.95	24.43	23.31	24.75	25.06	20.45	21.93	20.81	22.25	22.56
	3H	24.58	25.92	24.96	26.24	26.61	21.93	23.26	22.31	23.59	23.95
	4H	25.19	26.43	25.59	26.78	27.16	22.38	23.63	22.78	23.98	24.36
	6H	25.62	26.77	26.03	27.13	27.53	22.77	23.92	23.18	24.29	24.68
	8H	25.74	26.84	26.17	27.23	27.63	22.89	23.98	23.32	24.37	24.78
	12H	25.81	26.85	26.24	27.23	27.66	22.93	23.98	23.36	24.36	24.79
4H	2H	23.22	24.46	23.62	24.81	25.19	21.26	22.51	21.66	22.85	23.23
	3H	25.11	26.14	25.52	26.54	26.94	22.90	23.93	23.31	24.33	24.74
	4H	25.86	26.78	26.29	27.20	27.64	23.41	24.34	23.84	24.75	25.19
	6H	26.44	27.25	26.90	27.69	28.15	23.88	24.69	24.34	25.13	25.59
	8H	26.62	27.37	27.08	27.81	28.28	24.03	24.78	24.50	25.23	25.70
	12H	26.71	27.39	27.20	27.86	28.34	24.10	24.77	24.58	25.25	25.72
8H	4H	25.93	26.68	26.39	27.12	27.59	23.72	24.47	24.19	24.92	25.39
	6H	26.61	27.23	27.11	27.73	28.20	24.27	24.89	24.77	25.38	25.86
	8H	26.85	27.41	27.37	27.92	28.41	24.47	25.03	24.99	25.54	26.03
	12H	27.00	27.49	27.51	27.98	28.55	24.58	25.08	25.09	25.57	26.13
12H	4H	25.91	26.58	26.39	27.06	27.53	23.76	24.43	24.24	24.91	25.38
	6H	26.60	27.15	27.11	27.67	28.15	24.32	24.87	24.83	25.39	25.87
	8H	26.87	27.37	27.38	27.86	28.43	24.57	25.06	25.08	25.55	26.12