

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: P845553

Luminaire Tested: SQ2R-PC3-100D-830-UNV-STD-W-4

Issue Date: 6/14/2024

Test Information

Test Method: LM-79-2019
Report Number: P845553
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-830-UNV-STD-W-4
Description: CORELITE SQ2R RECESSED LED LUMINAIRE WITH PERCEIVE PYRAMID CONTINUOUS LENS
1000 LUMENS PER FOOT
Light Source: 3000K CCT, 80 CRI LEDS
Ballast/Driver: -

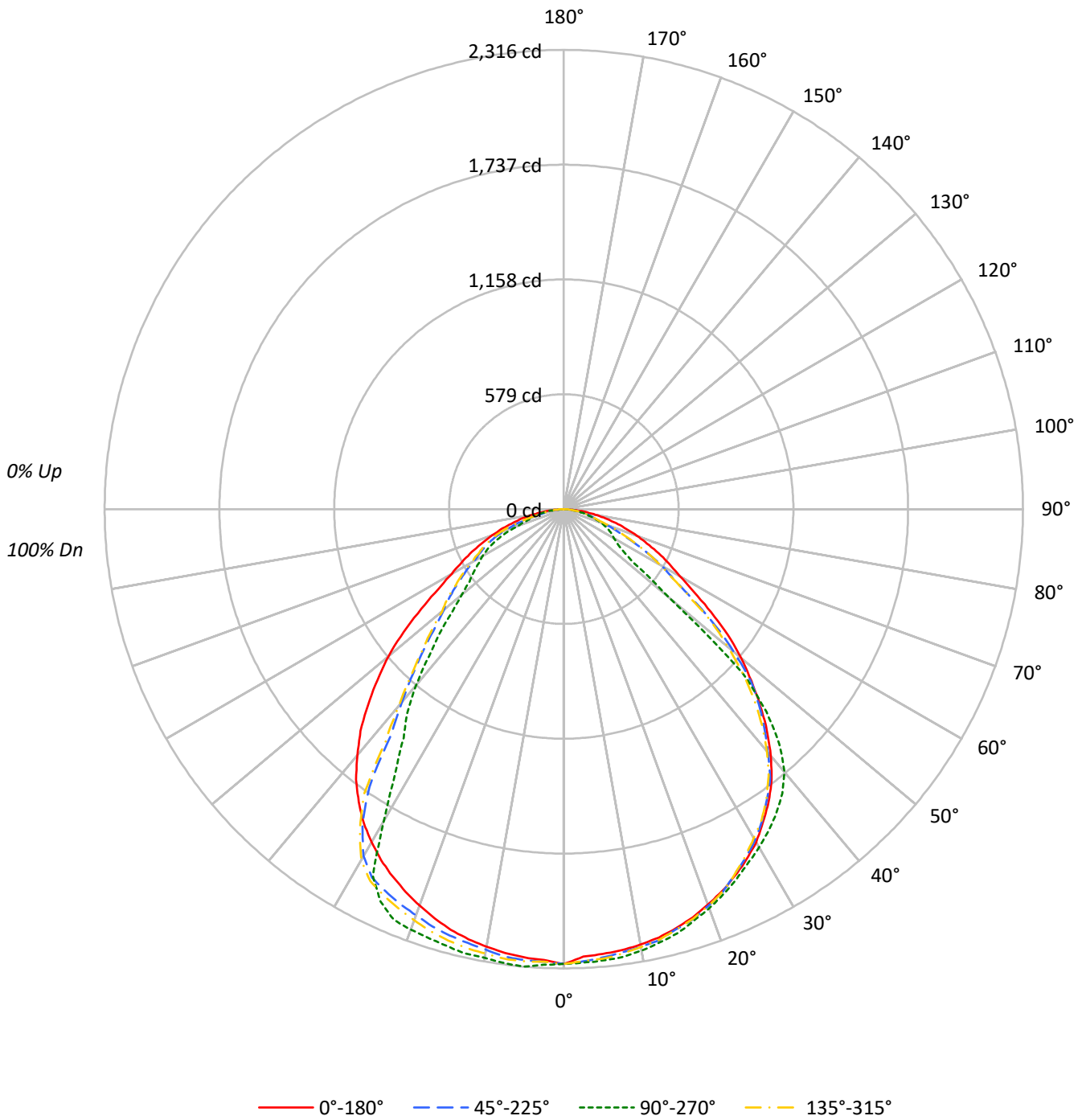
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5142.6 lumens
Efficiency: N/A
Efficacy: 136.8 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): 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°	37035	37035	37035	37035
5°	36503	37036	36786	37533
10°	36564	37067	36744	37679
15°	36583	37023	36729	38123
20°	36474	36813	36550	38773
25°	36371	36685	36410	38911
30°	36184	36715	36143	33771
35°	35530	36870	35530	27750
40°	34250	36514	34111	24405
45°	31997	32999	31896	20180
50°	29358	17407	28974	16802
55°	25557	10063	24693	15617
60°	21810	9419	21103	15297
65°	20191	9635	19522	14495
70°	18529	9423	18014	11490
75°	16962	8484	16419	10399
80°	15091	7541	14272	10395
85°	11375	4057	10559	5280

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 32999 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	217.5	4.2
10°-20°	628.4	12.2
20°-30°	960.1	18.7
30°-40°	1085.2	21.1
40°-50°	948.5	18.4
50°-60°	627.6	12.2
60°-70°	410.1	8.0
70°-80°	214.6	4.2
80°-90°	50.6	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°	1806.0	35.1
0°-40°	2891.2	56.2
0°-60°	4467.3	86.9
0°-90°	5142.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5142.6	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	2294	2294	2294	2294	2294	
5°	2252	2285	2270	2316	2252	214
15°	2189	2215	2197	2281	2189	618
25°	2042	2059	2044	2184	2042	941
35°	1803	1871	1803	1408	1803	1123
45°	1401	1445	1397	884	1401	1079
55°	908	358	877	555	908	815
65°	528	252	511	379	528	523
75°	272	136	263	167	272	289
85°	61	22	57	28	61	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°	2293.8	2293.8	2293.8	2293.8	2293.8	2293.8	2293.8	2293.8	2293.8	2293.8	2293.8
2.5°	2258.7	2315.8	2282.9	2280.7	2289.4	2291.6	2280.7	2304.8	2276.3	2307.0	2285.1
5°	2252.2	2309.2	2269.7	2265.3	2285.1	2278.5	2276.3	2298.2	2269.7	2293.8	2282.9
7.5°	2243.4	2296.0	2254.4	2252.2	2278.5	2269.7	2260.9	2287.3	2258.7	2285.1	2276.3
10°	2230.2	2276.3	2241.2	2243.4	2260.9	2252.2	2243.4	2265.3	2241.2	2274.1	2256.6
12.5°	2212.7	2258.7	2225.9	2219.3	2239.0	2223.7	2223.7	2241.2	2221.5	2256.6	2241.2
15°	2188.6	2234.6	2193.0	2197.3	2214.9	2199.5	2195.2	2217.1	2197.3	2232.4	2225.9
17.5°	2160.1	2199.5	2168.8	2171.0	2177.6	2171.0	2166.6	2184.2	2164.5	2201.7	2206.1
20°	2122.8	2168.8	2129.4	2129.4	2142.5	2125.0	2129.4	2144.7	2127.2	2171.0	2179.8
22.5°	2085.5	2129.4	2092.1	2092.1	2103.0	2078.9	2089.9	2100.9	2087.7	2135.9	2155.7
25°	2041.6	2076.7	2035.1	2048.2	2059.2	2037.3	2035.1	2052.6	2043.8	2092.1	2127.2
27.5°	1993.4	2024.1	1984.6	2002.2	2013.1	1997.8	1978.0	2000.0	1995.6	2050.4	2094.3
30°	1940.8	1969.3	1929.8	1953.9	1969.3	1947.3	1916.6	1936.4	1938.6	2002.2	2019.7
32.5°	1870.6	1899.1	1861.8	1901.3	1923.2	1892.5	1857.4	1868.4	1877.2	1940.8	1890.3
35°	1802.6	1815.8	1787.3	1837.7	1870.6	1833.3	1780.7	1793.8	1802.6	1875.0	1710.5
37.5°	1721.5	1721.5	1710.5	1765.3	1809.2	1754.4	1697.4	1703.9	1721.5	1782.9	1425.4
40°	1625.0	1611.8	1600.9	1673.2	1732.4	1660.1	1592.1	1594.3	1618.4	1633.8	1269.7
42.5°	1517.5	1502.2	1497.8	1574.5	1609.6	1550.4	1480.2	1482.4	1517.5	1427.6	1125.0
45°	1401.3	1394.7	1390.3	1443.0	1445.2	1407.9	1357.4	1368.4	1396.9	1232.4	995.6
47.5°	1282.9	1278.5	1276.3	1234.6	1225.9	1199.5	1225.9	1250.0	1274.1	1028.5	877.2
50°	1168.8	1138.1	1120.6	967.1	693.0	951.7	1078.9	1120.6	1153.5	896.9	789.5
52.5°	1043.8	1017.5	962.7	739.0	438.6	734.6	945.2	997.8	1017.5	815.8	723.7
55°	907.9	907.9	789.5	473.7	357.5	497.8	776.3	892.5	877.2	730.3	649.1
57.5°	778.5	804.8	655.7	318.0	315.8	318.0	651.3	793.9	750.0	662.3	587.7
60°	675.4	714.9	568.0	282.9	291.7	278.5	557.0	706.1	653.5	589.9	519.7
62.5°	598.7	631.6	469.3	258.8	274.1	254.4	471.5	629.4	578.9	537.3	473.7
65°	528.5	561.4	370.6	236.8	252.2	232.5	381.6	557.0	511.0	478.1	432.0
67.5°	453.9	484.6	293.9	214.9	225.9	212.7	307.0	484.6	443.0	421.0	377.2
70°	392.5	427.6	223.7	193.0	199.6	190.8	239.0	418.9	381.6	372.8	322.4
72.5°	331.1	359.6	173.2	171.1	168.9	166.7	175.4	357.5	322.4	307.0	250.0
75°	271.9	291.7	142.5	142.5	136.0	138.2	142.5	291.7	263.2	250.0	177.6
77.5°	214.9	230.3	116.2	111.8	105.3	105.3	114.0	223.7	208.3	193.0	118.4
80°	162.3	166.7	87.7	83.3	81.1	81.1	87.7	162.3	153.5	138.2	92.1
82.5°	109.6	92.1	59.2	61.4	59.2	59.2	57.0	94.3	103.1	70.2	68.0
85°	61.4	41.7	37.3	28.5	21.9	24.1	35.1	39.5	57.0	37.3	43.9
87.5°	21.9	17.5	6.6	8.8	6.6	6.6	6.6	17.5	17.5	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°	2293.8	2293.8	2293.8	2293.8	2293.8	2293.8
2.5°	2287.3	2300.4	2298.2	2285.1	2313.6	2258.7
5°	2289.4	2315.8	2302.6	2289.4	2307.0	2252.2
7.5°	2278.5	2309.2	2293.8	2287.3	2304.8	2243.4
10°	2271.9	2298.2	2285.1	2276.3	2293.8	2230.2
12.5°	2265.3	2296.0	2278.5	2267.5	2278.5	2212.7
15°	2247.8	2280.7	2269.7	2252.2	2252.2	2188.6
17.5°	2234.6	2267.5	2256.6	2232.4	2221.5	2160.1
20°	2225.9	2256.6	2241.2	2206.1	2188.6	2122.8
22.5°	2206.1	2241.2	2217.1	2179.8	2155.7	2085.5
25°	2171.0	2184.2	2182.0	2149.1	2109.6	2041.6
27.5°	2078.9	2085.5	2092.1	2114.0	2070.2	1993.4
30°	1918.8	1811.4	1945.2	2043.8	2021.9	1940.8
32.5°	1616.2	1581.1	1660.1	1914.5	1958.3	1870.6
35°	1449.5	1407.9	1473.7	1756.6	1885.9	1802.6
37.5°	1298.2	1298.2	1315.8	1475.9	1804.8	1721.5
40°	1190.8	1157.9	1206.1	1293.8	1682.0	1625.0
42.5°	1017.5	1006.6	1037.3	1140.3	1495.6	1517.5
45°	896.9	883.8	912.3	1011.0	1293.8	1401.3
47.5°	804.8	756.6	820.2	901.3	1096.5	1282.9
50°	719.3	668.9	730.3	800.4	929.8	1168.8
52.5°	644.7	598.7	660.1	736.8	844.3	1043.8
55°	568.0	554.8	583.3	664.5	761.0	907.9
57.5°	504.4	508.8	513.2	600.9	684.2	778.5
60°	464.9	473.7	471.5	539.5	620.6	675.4
62.5°	425.4	429.8	429.8	484.6	559.2	598.7
65°	379.4	379.4	383.8	445.2	506.6	528.5
67.5°	328.9	320.2	335.5	392.5	449.6	453.9
70°	258.8	243.4	269.7	339.9	401.3	392.5
72.5°	186.4	195.2	190.8	267.5	344.3	331.1
75°	153.5	166.7	155.7	190.8	280.7	271.9
77.5°	129.4	140.3	129.4	122.8	225.9	214.9
80°	103.1	111.8	103.1	94.3	166.7	162.3
82.5°	74.6	76.8	74.6	70.2	109.6	109.6
85°	35.1	28.5	39.5	46.1	43.9	61.4
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	22.77	24.26	23.14	24.57	24.89	20.27	21.76	20.64	22.07	22.39
	3H	24.41	25.74	24.79	26.07	26.43	21.76	23.09	22.14	23.42	23.78
	4H	25.01	26.26	25.41	26.61	26.99	22.21	23.46	22.61	23.80	24.18
	6H	25.44	26.59	25.86	26.96	27.35	22.60	23.75	23.01	24.12	24.51
	8H	25.57	26.66	26.00	27.05	27.46	22.72	23.81	23.14	24.20	24.60
	12H	25.63	26.68	26.06	27.06	27.49	22.76	23.80	23.19	24.19	24.61
4H	2H	23.04	24.29	23.44	24.64	25.02	21.09	22.33	21.49	22.68	23.06
	3H	24.94	25.97	25.35	26.37	26.77	22.73	23.76	23.14	24.16	24.56
	4H	25.69	26.61	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	27.64	28.11	23.86	24.61	24.32	25.06	25.53
	12H	26.54	27.21	27.03	27.69	28.16	23.92	24.59	24.41	25.07	25.54
8H	4H	25.75	26.51	26.22	26.95	27.42	23.55	24.30	24.01	24.75	25.21
	6H	26.44	27.06	26.94	27.55	28.03	24.10	24.72	24.60	25.21	25.69
	8H	26.68	27.24	27.19	27.75	28.24	24.30	24.86	24.82	25.37	25.86
	12H	26.83	27.32	27.34	27.81	28.38	24.41	24.90	24.92	25.40	25.96
12H	4H	25.74	26.41	26.22	26.89	27.36	23.58	24.26	24.07	24.73	25.21
	6H	26.42	26.98	26.94	27.49	27.98	24.14	24.70	24.66	25.21	25.70
	8H	26.70	27.19	27.21	27.69	28.25	24.39	24.89	24.90	25.38	25.94