

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: P845558

Luminaire Tested: SQ2R-PC3-100D-940-UNV-STD-W-4

Issue Date: 6/14/2024

Test Information

Test Method: LM-79-2019
Report Number: P845558
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-940-UNV-STD-W-4
Description: CORELITE SQ2R RECESSED LED LUMINAIRE WITH PERCEIVE PYRAMID CONTINUOUS LENS
1000 LUMENS PER FOOT
Light Source: 4000K CCT, 90 CRI LEDS
Ballast/Driver: -

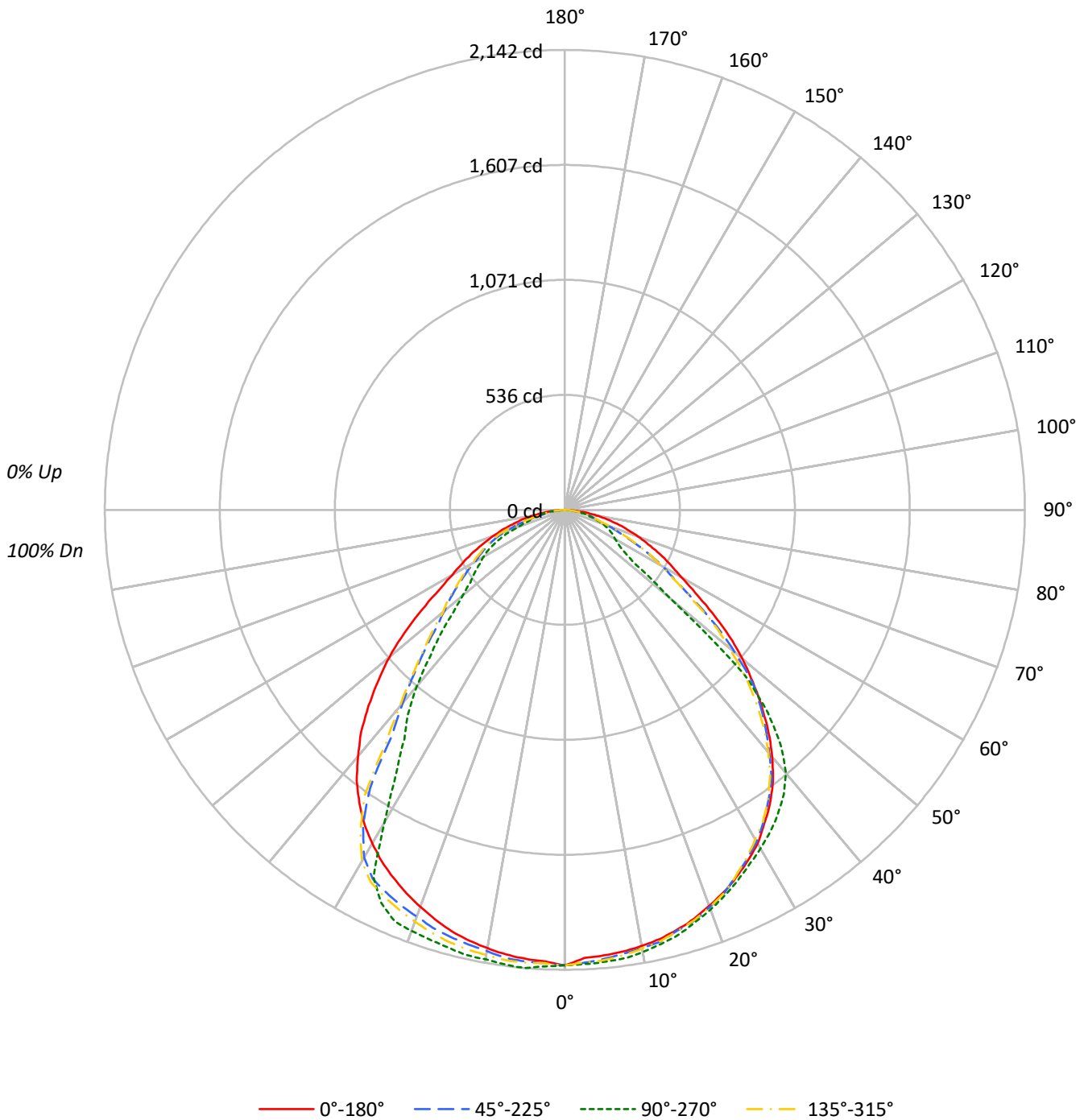
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4756.9 lumens
Efficiency: N/A
Efficacy: 126.5 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	0
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	108	104	100	97	100	97	94	96	94	91	92	90	89	87
2	101	94	88	83	99	92	87	82	89	84	80	86	82	78	83	80	77	75
3	93	84	77	71	91	83	76	70	80	74	69	77	72	68	74	70	67	65
4	86	75	67	61	84	74	67	61	72	65	60	69	64	59	67	63	59	57
5	80	68	60	54	78	67	59	54	65	58	53	63	57	52	61	56	52	50
6	74	62	54	48	72	61	53	47	59	52	47	58	51	47	56	51	46	44
7	69	57	48	43	67	56	48	42	54	47	42	53	47	42	52	46	42	40
8	65	52	44	38	63	51	44	38	50	43	38	49	42	38	48	42	38	36
9	60	48	40	35	59	47	40	35	46	39	35	45	39	34	44	38	34	33
10	57	44	37	32	56	44	37	32	43	36	32	42	36	31	41	35	31	30

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	34258	34258	34258	34258
5°	33765	34258	34028	34718
10°	33823	34288	33988	34854
15°	33839	34247	33976	35263
20°	33739	34051	33807	35864
25°	33644	33934	33681	35993
30°	33469	33961	33432	31237
35°	32865	34105	32865	25669
40°	31681	33776	31552	22573
45°	29597	30524	29506	18667
50°	27158	16101	26801	15541
55°	23640	9306	22840	14446
60°	20176	8712	19520	14150
65°	18678	8913	18055	13406
70°	17141	8714	16664	10631
75°	15689	7848	15184	9619
80°	13956	6983	13203	9623
85°	10522	3761	9763	4891

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 30524 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	201.2	4.2
10°-20°	581.2	12.2
20°-30°	888.1	18.7
30°-40°	1003.8	21.1
40°-50°	877.4	18.4
50°-60°	580.5	12.2
60°-70°	379.3	8.0
70°-80°	198.5	4.2
80°-90°	46.8	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°	1670.6	35.1
0°-40°	2674.4	56.2
0°-60°	4132.3	86.9
0°-90°	4756.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4756.9	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	2122	2122	2122	2122	2122	
5°	2083	2114	2100	2142	2083	198
15°	2024	2049	2033	2110	2024	571
25°	1888	1905	1891	2020	1888	870
35°	1667	1730	1667	1302	1667	1039
45°	1296	1337	1292	818	1296	998
55°	840	331	811	513	840	754
65°	489	233	473	351	489	484
75°	252	126	243	154	252	267
85°	57	20	53	26	57	69
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°	2121.8	2121.8	2121.8	2121.8	2121.8	2121.8	2121.8	2121.8	2121.8	2121.8	2121.8
2.5°	2089.4	2142.1	2111.7	2109.6	2117.7	2119.8	2109.6	2131.9	2105.6	2134.0	2113.7
5°	2083.3	2136.0	2099.5	2095.4	2113.7	2107.6	2105.6	2125.9	2099.5	2121.8	2111.7
7.5°	2075.2	2123.8	2085.3	2083.3	2107.6	2099.5	2091.4	2115.7	2089.4	2113.7	2105.6
10°	2063.0	2105.6	2073.1	2075.2	2091.4	2083.3	2075.2	2095.4	2073.1	2103.5	2087.3
12.5°	2046.8	2089.4	2058.9	2052.8	2071.1	2056.9	2056.9	2073.1	2054.9	2087.3	2073.1
15°	2024.4	2067.0	2028.5	2032.6	2048.8	2034.6	2030.5	2050.8	2032.6	2065.0	2058.9
17.5°	1998.1	2034.6	2006.2	2008.2	2014.3	2008.2	2004.2	2020.4	2002.1	2036.6	2040.7
20°	1963.6	2006.2	1969.7	1969.7	1981.8	1965.6	1969.7	1983.9	1967.6	2008.2	2016.3
22.5°	1929.1	1969.7	1935.2	1935.2	1945.3	1923.0	1933.2	1943.3	1931.1	1975.8	1994.0
25°	1888.5	1921.0	1882.4	1894.6	1904.8	1884.5	1882.4	1898.7	1890.6	1935.2	1967.6
27.5°	1843.9	1872.3	1835.8	1852.0	1862.2	1848.0	1829.7	1850.0	1845.9	1896.6	1937.2
30°	1795.2	1821.6	1785.1	1807.4	1821.6	1801.3	1772.9	1791.2	1793.2	1852.0	1868.2
32.5°	1730.3	1756.7	1722.2	1758.7	1779.0	1750.6	1718.1	1728.3	1736.4	1795.2	1748.6
35°	1667.4	1679.6	1653.2	1699.9	1730.3	1695.8	1647.1	1659.3	1667.4	1734.4	1582.2
37.5°	1592.4	1592.4	1582.2	1632.9	1673.5	1622.8	1570.1	1576.1	1592.4	1649.2	1318.5
40°	1503.1	1490.9	1480.8	1547.7	1602.5	1535.6	1472.7	1474.7	1497.0	1511.2	1174.5
42.5°	1403.7	1389.5	1385.5	1456.5	1488.9	1434.1	1369.2	1371.3	1403.7	1320.6	1040.6
45°	1296.2	1290.1	1286.1	1334.7	1336.8	1302.3	1255.6	1265.8	1292.2	1140.0	920.9
47.5°	1186.7	1182.6	1180.6	1142.0	1133.9	1109.6	1133.9	1156.2	1178.6	951.4	811.4
50°	1081.2	1052.8	1036.6	894.6	641.0	880.4	998.0	1036.6	1067.0	829.7	730.3
52.5°	965.6	941.2	890.5	683.6	405.7	679.5	874.3	923.0	941.2	754.6	669.4
55°	839.8	839.8	730.3	438.2	330.6	460.5	718.1	825.6	811.4	675.5	600.4
57.5°	720.1	744.5	606.5	294.1	292.1	294.1	602.5	734.3	693.7	612.6	543.6
60°	624.8	661.3	525.4	261.7	269.8	257.6	515.2	653.2	604.5	545.7	480.8
62.5°	553.8	584.2	434.1	239.4	253.6	235.3	436.1	582.2	535.5	497.0	438.2
65°	488.9	519.3	342.8	219.1	233.3	215.0	353.0	515.2	472.6	442.2	399.6
67.5°	419.9	448.3	271.8	198.8	208.9	196.8	284.0	448.3	409.8	389.5	348.9
70°	363.1	395.6	206.9	178.5	184.6	176.5	221.1	387.4	353.0	344.8	298.2
72.5°	306.3	332.7	160.3	158.2	156.2	154.2	162.3	330.6	298.2	284.0	231.2
75°	251.5	269.8	131.9	131.9	125.8	127.8	131.9	269.8	243.4	231.2	164.3
77.5°	198.8	213.0	107.5	103.5	97.4	97.4	105.5	206.9	192.7	178.5	109.5
80°	150.1	154.2	81.1	77.1	75.1	75.1	81.1	150.1	142.0	127.8	85.2
82.5°	101.4	85.2	54.8	56.8	54.8	54.8	52.7	87.2	95.3	64.9	62.9
85°	56.8	38.5	34.5	26.4	20.3	22.3	32.5	36.5	52.7	34.5	40.6
87.5°	20.3	16.2	6.1	8.1	6.1	6.1	6.1	16.2	16.2	12.2	6.1
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°	2121.8	2121.8	2121.8	2121.8	2121.8	2121.8
2.5°	2115.7	2127.9	2125.9	2113.7	2140.1	2089.4
5°	2117.7	2142.1	2129.9	2117.7	2134.0	2083.3
7.5°	2107.6	2136.0	2121.8	2115.7	2131.9	2075.2
10°	2101.5	2125.9	2113.7	2105.6	2121.8	2063.0
12.5°	2095.4	2123.8	2107.6	2097.5	2107.6	2046.8
15°	2079.2	2109.6	2099.5	2083.3	2083.3	2024.4
17.5°	2067.0	2097.5	2087.3	2065.0	2054.9	1998.1
20°	2058.9	2087.3	2073.1	2040.7	2024.4	1963.6
22.5°	2040.7	2073.1	2050.8	2016.3	1994.0	1929.1
25°	2008.2	2020.4	2018.4	1987.9	1951.4	1888.5
27.5°	1923.0	1929.1	1935.2	1955.5	1914.9	1843.9
30°	1774.9	1675.5	1799.3	1890.6	1870.3	1795.2
32.5°	1495.0	1462.5	1535.6	1770.9	1811.4	1730.3
35°	1340.8	1302.3	1363.1	1624.8	1744.5	1667.4
37.5°	1200.9	1200.9	1217.1	1365.2	1669.5	1592.4
40°	1101.5	1071.0	1115.7	1196.8	1555.9	1503.1
42.5°	941.2	931.1	959.5	1054.8	1383.4	1403.7
45°	829.7	817.5	843.9	935.1	1196.8	1296.2
47.5°	744.5	699.8	758.7	833.7	1014.2	1186.7
50°	665.3	618.7	675.5	740.4	860.1	1081.2
52.5°	596.4	553.8	610.6	681.6	781.0	965.6
55°	525.4	513.2	539.6	614.6	703.9	839.8
57.5°	466.6	470.6	474.7	555.8	632.9	720.1
60°	430.0	438.2	436.1	499.0	574.1	624.8
62.5°	393.5	397.6	397.6	448.3	517.3	553.8
65°	350.9	350.9	355.0	411.8	468.6	488.9
67.5°	304.3	296.2	310.4	363.1	415.8	419.9
70°	239.4	225.2	249.5	314.4	371.2	363.1
72.5°	172.4	180.5	176.5	247.5	318.5	306.3
75°	142.0	154.2	144.0	176.5	259.6	251.5
77.5°	119.7	129.8	119.7	113.6	208.9	198.8
80°	95.3	103.5	95.3	87.2	154.2	150.1
82.5°	69.0	71.0	69.0	64.9	101.4	101.4
85°	32.5	26.4	36.5	42.6	40.6	56.8
87.5°	6.1	6.1	6.1	8.1	22.3	20.3
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	22.50	23.99	22.87	24.30	24.62	20.00	21.49	20.37	21.80	22.12
	3H	24.14	25.47	24.52	25.80	26.16	21.49	22.82	21.87	23.15	23.51
	4H	24.74	25.99	25.14	26.34	26.72	21.94	23.18	22.34	23.53	23.91
	6H	25.17	26.32	25.59	26.69	27.08	22.33	23.48	22.74	23.85	24.24
	8H	25.30	26.39	25.73	26.78	27.18	22.45	23.54	22.87	23.93	24.33
	12H	25.36	26.41	25.79	26.79	27.22	22.49	23.53	22.92	23.92	24.34
4H	2H	22.77	24.02	23.17	24.37	24.75	20.82	22.06	21.22	22.41	22.79
	3H	24.67	25.70	25.08	26.10	26.50	22.46	23.49	22.87	23.89	24.29
	4H	25.41	26.34	25.85	26.76	27.20	22.97	23.89	23.40	24.31	24.75
	6H	26.00	26.81	26.46	27.25	27.71	23.44	24.25	23.90	24.69	25.15
	8H	26.17	26.93	26.64	27.37	27.84	23.59	24.34	24.05	24.79	25.25
	12H	26.27	26.94	26.75	27.42	27.89	23.65	24.32	24.14	24.80	25.27
8H	4H	25.48	26.23	25.95	26.68	27.15	23.28	24.03	23.74	24.47	24.94
	6H	26.17	26.79	26.67	27.28	27.76	23.83	24.45	24.33	24.94	25.42
	8H	26.41	26.97	26.92	27.48	27.96	24.03	24.59	24.54	25.10	25.59
	12H	26.56	27.05	27.07	27.54	28.11	24.14	24.63	24.65	25.13	25.69
12H	4H	25.47	26.14	25.95	26.62	27.09	23.31	23.98	23.80	24.46	24.94
	6H	26.15	26.71	26.67	27.22	27.71	23.87	24.43	24.39	24.94	25.43
	8H	26.43	26.92	26.94	27.42	27.98	24.12	24.62	24.63	25.11	25.67