

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: P845557

Luminaire Tested: SQ2R-PC3-100D-935-UNV-STD-W-4

Issue Date: 6/14/2024

Test Information

Test Method: LM-79-2019
Report Number: P845557
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-935-UNV-STD-W-4
Description: CORELITE SQ2R RECESSED LED LUMINAIRE WITH PERCEIVE PYRAMID CONTINUOUS LENS
1000 LUMENS PER FOOT
Light Source: 3500K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

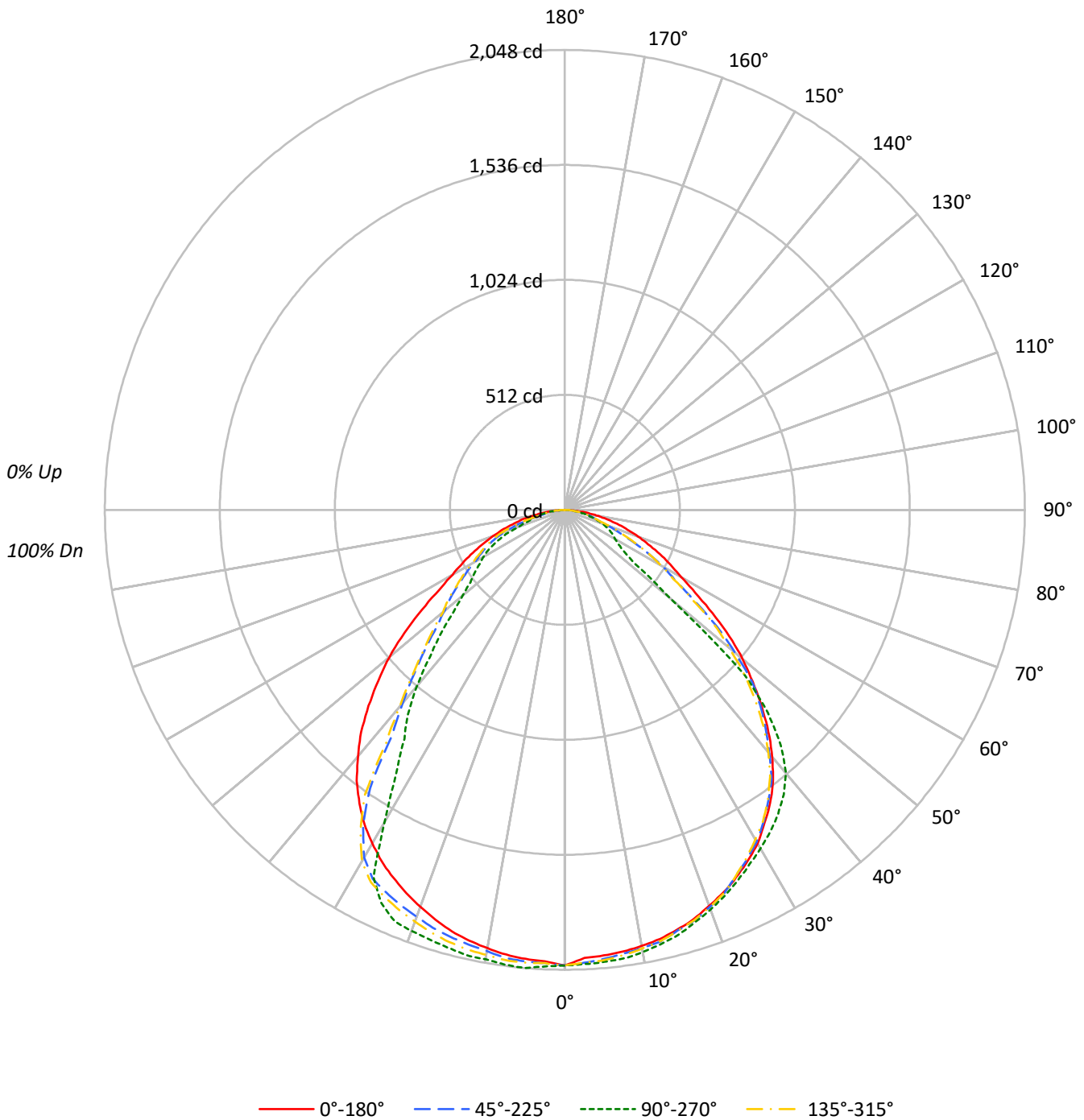
Lumens per Lamp: N/A
Luminaire Lumens: 4548.4 lumens
Efficiency: N/A
Efficacy: 121.0 lumens/watt
Spacing Criteria (0/90/45): 1.25 / 1.21 / 1.25
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: Direct

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°	32757	32757	32757	32757
5°	32284	32755	32537	33196
10°	32339	32785	32498	33326
15°	32356	32745	32485	33718
20°	32259	32560	32326	34292
25°	32168	32446	32204	34415
30°	32002	32472	31966	29869
35°	31424	32611	31424	24543
40°	30292	32296	30169	21585
45°	28300	29186	28211	17847
50°	25967	15395	25626	14860
55°	22604	8898	21838	13813
60°	19291	8331	18665	13527
65°	17857	8523	17265	12818
70°	16390	8332	15932	10164
75°	15003	7505	14516	9195
80°	13343	6676	12627	9196
85°	10059	3594	9337	4668

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 29186 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	192.4	4.2
10°-20°	555.8	12.2
20°-30°	849.2	18.7
30°-40°	959.8	21.1
40°-50°	838.9	18.4
50°-60°	555.1	12.2
60°-70°	362.7	8.0
70°-80°	189.8	4.2
80°-90°	44.8	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°	1597.3	35.1
0°-40°	2557.1	56.2
0°-60°	3951.1	86.9
0°-90°	4548.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4548.4	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	2029	2029	2029	2029	2029	
5°	1992	2021	2008	2048	1992	190
15°	1936	1959	1943	2017	1936	546
25°	1806	1821	1808	1932	1806	832
35°	1594	1654	1594	1245	1594	994
45°	1239	1278	1236	782	1239	954
55°	803	316	776	491	803	721
65°	467	223	452	336	467	463
75°	240	120	233	147	240	255
85°	54	19	50	25	54	66
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°	2028.8	2028.8	2028.8	2028.8	2028.8	2028.8	2028.8	2028.8	2028.8	2028.8	2028.8
2.5°	1997.8	2048.2	2019.1	2017.2	2024.9	2026.8	2017.2	2038.5	2013.3	2040.4	2021.0
5°	1991.9	2042.4	2007.5	2003.6	2021.0	2015.2	2013.3	2032.7	2007.5	2028.8	2019.1
7.5°	1984.2	2030.7	1993.9	1991.9	2015.2	2007.5	1999.7	2023.0	1997.8	2021.0	2013.3
10°	1972.5	2013.3	1982.2	1984.2	1999.7	1991.9	1984.2	2003.6	1982.2	2011.3	1995.8
12.5°	1957.0	1997.8	1968.7	1962.8	1980.3	1966.7	1966.7	1982.2	1964.8	1995.8	1982.2
15°	1935.7	1976.4	1939.6	1943.4	1959.0	1945.4	1941.5	1960.9	1943.4	1974.5	1968.7
17.5°	1910.5	1945.4	1918.2	1920.2	1926.0	1920.2	1916.3	1931.8	1914.4	1947.3	1951.2
20°	1877.5	1918.2	1883.3	1883.3	1895.0	1879.4	1883.3	1896.9	1881.4	1920.2	1927.9
22.5°	1844.5	1883.3	1850.3	1850.3	1860.0	1838.7	1848.4	1858.1	1846.5	1889.1	1906.6
25°	1805.7	1836.8	1799.9	1811.6	1821.3	1801.9	1799.9	1815.4	1807.7	1850.3	1881.4
27.5°	1763.1	1790.2	1755.3	1770.8	1780.5	1766.9	1749.5	1768.9	1765.0	1813.5	1852.3
30°	1716.5	1741.7	1706.8	1728.2	1741.7	1722.3	1695.2	1712.6	1714.6	1770.8	1786.3
32.5°	1654.5	1679.7	1646.7	1681.6	1701.0	1673.8	1642.8	1652.5	1660.3	1716.5	1671.9
35°	1594.3	1606.0	1580.7	1625.4	1654.5	1621.5	1574.9	1586.6	1594.3	1658.3	1512.9
37.5°	1522.6	1522.6	1512.9	1561.4	1600.1	1551.7	1501.2	1507.0	1522.6	1576.9	1260.7
40°	1437.2	1425.6	1415.9	1479.9	1532.3	1468.3	1408.1	1410.1	1431.4	1445.0	1123.0
42.5°	1342.2	1328.6	1324.7	1392.6	1423.6	1371.3	1309.2	1311.1	1342.2	1262.7	995.0
45°	1239.4	1233.6	1229.7	1276.2	1278.2	1245.2	1200.6	1210.3	1235.5	1090.0	880.6
47.5°	1134.6	1130.8	1128.8	1092.0	1084.2	1060.9	1084.2	1105.6	1126.9	909.7	775.8
50°	1033.8	1006.6	991.1	855.3	612.9	841.8	954.3	991.1	1020.2	793.3	698.2
52.5°	923.2	900.0	851.5	653.6	387.9	649.8	836.0	882.5	900.0	721.5	640.1
55°	803.0	803.0	698.2	418.9	316.1	440.3	686.6	789.4	775.8	645.9	574.1
57.5°	688.5	711.8	579.9	281.2	279.3	281.2	576.1	702.1	663.3	585.7	519.8
60°	597.4	632.3	502.3	250.2	258.0	246.3	492.7	624.5	578.0	521.7	459.7
62.5°	529.5	558.6	415.1	228.9	242.4	225.0	417.0	556.7	512.0	475.2	418.9
65°	467.4	496.5	327.8	209.5	223.1	205.6	337.5	492.7	451.9	422.8	382.1
67.5°	401.5	428.6	259.9	190.1	199.8	188.1	271.5	428.6	391.8	372.4	333.6
70°	347.2	378.2	197.8	170.7	176.5	168.7	211.4	370.5	337.5	329.7	285.1
72.5°	292.9	318.1	153.2	151.3	149.3	147.4	155.2	316.1	285.1	271.5	221.1
75°	240.5	258.0	126.1	126.1	120.3	122.2	126.1	258.0	232.7	221.1	157.1
77.5°	190.1	203.7	102.8	98.9	93.1	93.1	100.9	197.8	184.3	170.7	104.7
80°	143.5	147.4	77.6	73.7	71.8	71.8	77.6	143.5	135.8	122.2	81.5
82.5°	97.0	81.5	52.4	54.3	52.4	52.4	50.4	83.4	91.2	62.1	60.1
85°	54.3	36.9	33.0	25.2	19.4	21.3	31.0	34.9	50.4	33.0	38.8
87.5°	19.4	15.5	5.8	7.8	5.8	5.8	5.8	15.5	15.5	11.6	5.8
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°	2028.8	2028.8	2028.8	2028.8	2028.8	2028.8
2.5°	2023.0	2034.6	2032.7	2021.0	2046.2	1997.8
5°	2024.9	2048.2	2036.5	2024.9	2040.4	1991.9
7.5°	2015.2	2042.4	2028.8	2023.0	2038.5	1984.2
10°	2009.4	2032.7	2021.0	2013.3	2028.8	1972.5
12.5°	2003.6	2030.7	2015.2	2005.5	2015.2	1957.0
15°	1988.1	2017.2	2007.5	1991.9	1991.9	1935.7
17.5°	1976.4	2005.5	1995.8	1974.5	1964.8	1910.5
20°	1968.7	1995.8	1982.2	1951.2	1935.7	1877.5
22.5°	1951.2	1982.2	1960.9	1927.9	1906.6	1844.5
25°	1920.2	1931.8	1929.9	1900.8	1865.9	1805.7
27.5°	1838.7	1844.5	1850.3	1869.7	1831.0	1763.1
30°	1697.1	1602.1	1720.4	1807.7	1788.3	1716.5
32.5°	1429.5	1398.4	1468.3	1693.2	1732.0	1654.5
35°	1282.1	1245.2	1303.4	1553.6	1668.0	1594.3
37.5°	1148.2	1148.2	1163.7	1305.3	1596.3	1522.6
40°	1053.2	1024.1	1066.8	1144.3	1487.6	1437.2
42.5°	900.0	890.3	917.4	1008.6	1322.8	1342.2
45°	793.3	781.6	806.9	894.1	1144.3	1239.4
47.5°	711.8	669.2	725.4	797.2	969.8	1134.6
50°	636.2	591.6	645.9	707.9	822.4	1033.8
52.5°	570.2	529.5	583.8	651.7	746.7	923.2
55°	502.3	490.7	515.9	587.7	673.0	803.0
57.5°	446.1	450.0	453.9	531.4	605.1	688.5
60°	411.2	418.9	417.0	477.1	548.9	597.4
62.5°	376.3	380.2	380.2	428.6	494.6	529.5
65°	335.5	335.5	339.4	393.7	448.0	467.4
67.5°	290.9	283.2	296.8	347.2	397.6	401.5
70°	228.9	215.3	238.6	300.6	354.9	347.2
72.5°	164.9	172.6	168.7	236.6	304.5	292.9
75°	135.8	147.4	137.7	168.7	248.3	240.5
77.5°	114.4	124.1	114.4	108.6	199.8	190.1
80°	91.2	98.9	91.2	83.4	147.4	143.5
82.5°	65.9	67.9	65.9	62.1	97.0	97.0
85°	31.0	25.2	34.9	40.7	38.8	54.3
87.5°	5.8	5.8	5.8	7.8	21.3	19.4
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	22.35	23.83	22.71	24.15	24.46	19.85	21.33	20.21	21.65	21.96
	3H	23.99	25.32	24.36	25.64	26.01	21.33	22.66	21.71	22.99	23.35
	4H	24.59	25.83	24.99	26.18	26.56	21.78	23.03	22.18	23.38	23.76
	6H	25.02	26.17	25.43	26.53	26.93	22.17	23.32	22.58	23.69	24.08
	8H	25.14	26.24	25.57	26.63	27.03	22.29	23.38	22.72	23.77	24.18
	12H	25.21	26.25	25.64	26.64	27.07	22.33	23.38	22.76	23.76	24.19
4H	2H	22.62	23.86	23.02	24.21	24.59	20.66	21.91	21.06	22.25	22.63
	3H	24.51	25.54	24.92	25.94	26.35	22.30	23.33	22.71	23.74	24.14
	4H	25.26	26.19	25.69	26.60	27.04	22.81	23.74	23.24	24.16	24.59
	6H	25.84	26.65	26.30	27.09	27.55	23.29	24.09	23.74	24.53	24.99
	8H	26.02	26.77	26.48	27.22	27.68	23.43	24.19	23.90	24.63	25.10
	12H	26.12	26.79	26.60	27.27	27.74	23.50	24.17	23.98	24.65	25.12
8H	4H	25.33	26.08	25.79	26.52	26.99	23.12	23.87	23.59	24.32	24.79
	6H	26.01	26.64	26.51	27.13	27.61	23.67	24.29	24.17	24.78	25.26
	8H	26.25	26.81	26.77	27.32	27.81	23.87	24.43	24.39	24.94	25.43
	12H	26.40	26.89	26.91	27.39	27.95	23.98	24.48	24.50	24.97	25.54
12H	4H	25.31	25.98	25.79	26.46	26.93	23.16	23.83	23.64	24.31	24.78
	6H	26.00	26.56	26.51	27.07	27.55	23.72	24.28	24.23	24.79	25.28
	8H	26.27	26.77	26.79	27.26	27.83	23.97	24.46	24.48	24.95	25.52