

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: P845625

Luminaire Tested: SQ2R-PR1-100D-830-UNV-STD-W-4

Issue Date: 6/14/2024

Test Information

Test Method: LM-79-2019
Report Number: P845625
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2308-131-9)
Test Lab: INNOVATION CENTER
Issue Date: 6/14/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ2R-PR1-100D-830-UNV-STD-W-4
Description: CORELITE SQ2R RECESSED LED LUMINAIRE WITH PERCEIVE RIPPLE CONTINUOUS LENS
1000 LUMENS PER FOOT
Light Source: 3000K CCT, 80 CRI LEDS
Ballast/Driver: -

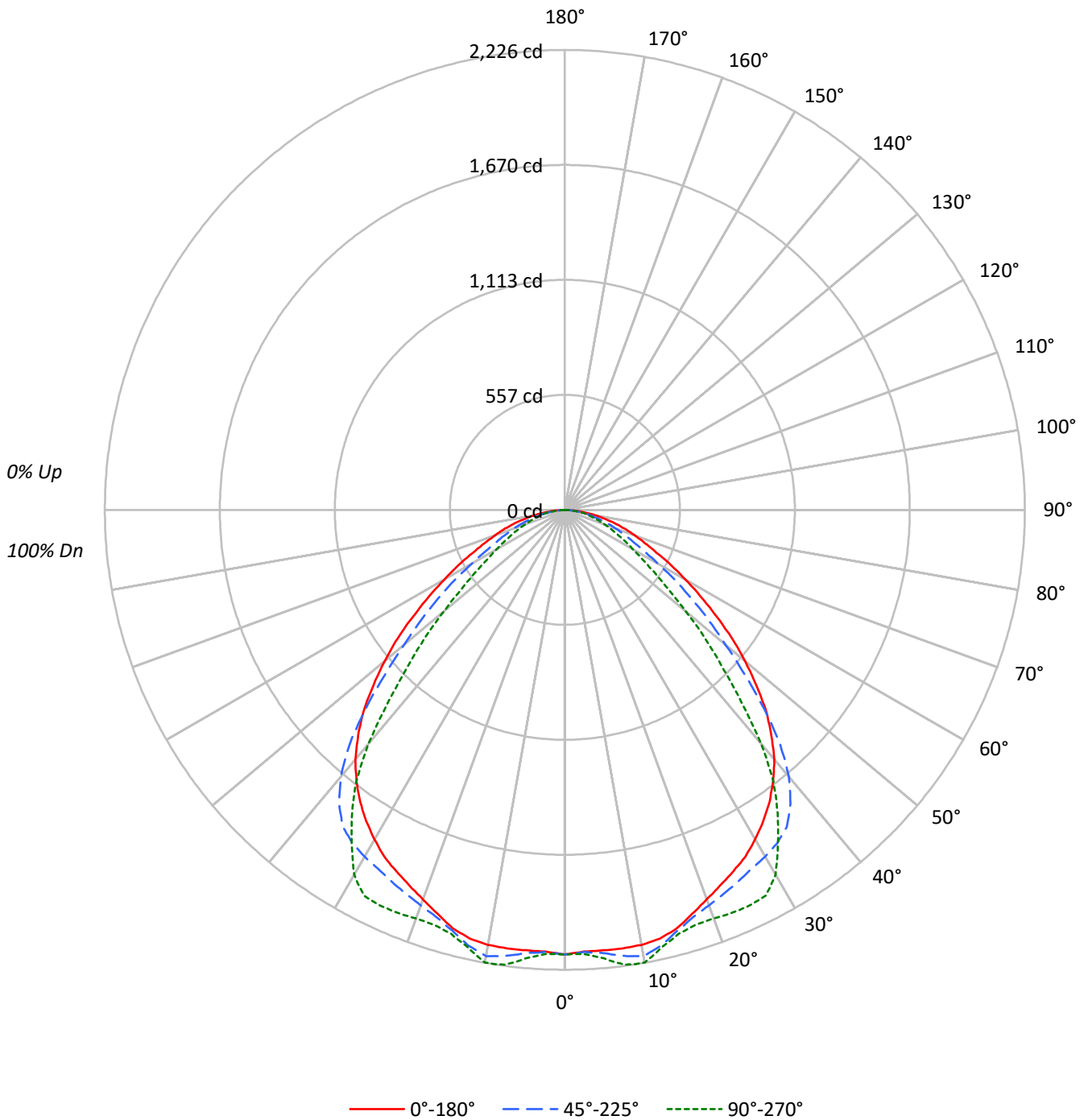
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5175.8 lumens
Efficiency: N/A
Efficacy: 137.7 lumens/watt
Spacing Criteria (0/90/45): 1.27 / 1.33 / 1.36
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	101	97	100	97	94	96	94	92	92	91	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	82	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	62	58	56				56
5	80	68	60	53	78	67	59	53	65	58	53	63	57	52	61	56	52	50				50
6	74	62	53	47	72	61	53	47	59	52	47	57	51	46	56	50	46	44				44
7	69	56	48	42	67	55	48	42	54	47	42	52	46	41	51	45	41	39				39
8	64	51	43	38	63	51	43	38	49	42	38	48	42	37	47	41	37	35				35
9	60	47	40	34	59	47	39	34	46	39	34	45	38	34	44	38	34	32				32
10	56	44	36	31	55	43	36	31	42	36	31	41	35	31	40	35	31	29				29

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	34735	34735	34735
5°	34689	34903	35329
10°	35054	35954	36493
15°	35044	35226	35520
20°	34477	35005	36172
25°	34379	35356	37661
30°	34343	36143	38022
35°	34018	36914	35400
40°	33232	35544	31154
45°	31447	31195	24635
50°	28587	25503	19115
55°	25123	20988	14877
60°	21739	16782	12251
65°	18766	13906	10724
70°	16877	12321	9526
75°	15458	10674	8752
80°	13454	8563	8563
85°	9744	7725	4057

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 22.5°
 Vertical Angle: 45°
 Luminance: 34050 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	207.7	4.0
10°-20°	601.6	11.6
20°-30°	930.4	18.0
30°-40°	1120.3	21.6
40°-50°	1005.7	19.4
50°-60°	671.4	13.0
60°-70°	390.0	7.5
70°-80°	200.5	3.9
80°-90°	48.2	0.9
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°	1739.7	33.6
0°-40°	2860.0	55.3
0°-60°	4537.0	87.7
0°-90°	5175.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5175.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2151	2151	2151	2151	2151	
5°	2140	2178	2154	2158	2180	204
15°	2096	2184	2107	2114	2125	589
25°	1930	2009	1985	2057	2114	890
35°	1726	1741	1873	1838	1796	1077
45°	1377	1491	1366	1154	1079	1055
55°	892	928	746	577	528	802
65°	491	502	364	296	281	495
75°	248	241	171	145	140	263
85°	53	42	42	28	22	66
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2151.3	2151.3	2151.3	2151.3	2151.3
2.5°	2140.3	2173.2	2142.5	2144.7	2151.3
5°	2140.3	2177.6	2153.5	2157.9	2179.8
7.5°	2140.3	2190.8	2177.6	2193.0	2221.5
10°	2138.1	2201.7	2193.0	2195.1	2225.9
12.5°	2125.0	2201.7	2160.1	2155.7	2168.8
15°	2096.5	2184.2	2107.4	2114.0	2125.0
17.5°	2050.4	2142.5	2065.8	2087.7	2105.2
20°	2006.6	2096.5	2037.3	2068.0	2105.2
22.5°	1967.1	2057.0	2010.9	2057.0	2111.8
25°	1929.8	2008.7	1984.6	2057.0	2114.0
27.5°	1892.5	1943.0	1958.3	2059.2	2105.2
30°	1842.1	1872.8	1938.6	2024.1	2039.4
32.5°	1787.3	1802.6	1912.3	1947.3	1918.8
35°	1725.9	1741.2	1872.8	1837.7	1796.0
37.5°	1655.7	1682.0	1793.8	1703.9	1657.9
40°	1576.7	1629.4	1686.4	1532.9	1478.1
42.5°	1480.2	1572.3	1543.8	1337.7	1267.5
45°	1377.2	1491.2	1366.2	1153.5	1078.9
47.5°	1256.6	1379.4	1179.8	986.8	918.8
50°	1138.1	1232.4	1015.3	837.7	761.0
52.5°	1017.5	1078.9	875.0	697.4	629.4
55°	892.5	927.6	745.6	576.7	528.5
57.5°	776.3	800.4	631.6	480.3	443.0
60°	673.2	688.6	519.7	407.9	379.4
62.5°	578.9	589.9	429.8	346.5	326.8
65°	491.2	502.2	364.0	296.0	280.7
67.5°	418.9	425.4	309.2	254.4	239.0
70°	357.5	359.6	261.0	212.7	201.8
72.5°	302.6	298.2	214.9	177.6	171.1
75°	247.8	241.2	171.1	144.7	140.3
77.5°	195.2	188.6	127.2	116.2	116.2
80°	144.7	136.0	92.1	92.1	92.1
82.5°	98.7	85.5	65.8	65.8	63.6
85°	52.6	41.7	41.7	28.5	21.9
87.5°	17.5	17.5	6.6	6.6	6.6
90°	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	23.03	24.53	23.40	24.84	25.16	19.76	21.26	20.13	21.57	21.89
	3H	24.31	25.65	24.69	25.98	26.34	20.87	22.21	21.25	22.54	22.90
	4H	24.79	26.04	25.19	26.39	26.77	21.30	22.55	21.70	22.90	23.28
	6H	25.14	26.29	25.55	26.66	27.05	21.66	22.82	22.07	23.18	23.58
	8H	25.24	26.34	25.66	26.73	27.13	21.76	22.86	22.19	23.25	23.65
	12H	25.29	26.34	25.72	26.72	27.15	21.79	22.84	22.22	23.22	23.65
4H	2H	23.19	24.44	23.59	24.79	25.17	20.40	21.66	20.80	22.00	22.38
	3H	24.71	25.75	25.12	26.15	26.55	21.73	22.76	22.14	23.16	23.56
	4H	25.33	26.26	25.76	26.67	27.11	22.26	23.18	22.69	23.60	24.04
	6H	25.81	26.62	26.27	27.06	27.52	22.72	23.53	23.18	23.97	24.43
	8H	25.96	26.71	26.42	27.15	27.62	22.85	23.61	23.32	24.05	24.52
	12H	26.04	26.71	26.52	27.19	27.66	22.90	23.57	23.39	24.05	24.53
8H	4H	25.40	26.15	25.86	26.60	27.06	22.60	23.35	23.07	23.80	24.27
	6H	25.97	26.59	26.46	27.08	27.56	23.16	23.78	23.65	24.27	24.75
	8H	26.16	26.72	26.68	27.23	27.72	23.34	23.90	23.86	24.41	24.90
	12H	26.29	26.79	26.80	27.28	27.85	23.43	23.93	23.94	24.42	24.98
12H	4H	25.38	26.06	25.87	26.53	27.01	22.65	23.32	23.13	23.80	24.27
	6H	25.95	26.51	26.47	27.02	27.51	23.22	23.78	23.73	24.29	24.78
	8H	26.19	26.68	26.70	27.18	27.74	23.45	23.94	23.96	24.44	25.00