

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: P845487

Luminaire Tested: SQ2R-F-125D-830-UNV-STD-W-4

Issue Date: 6/14/2024

**Test Information**

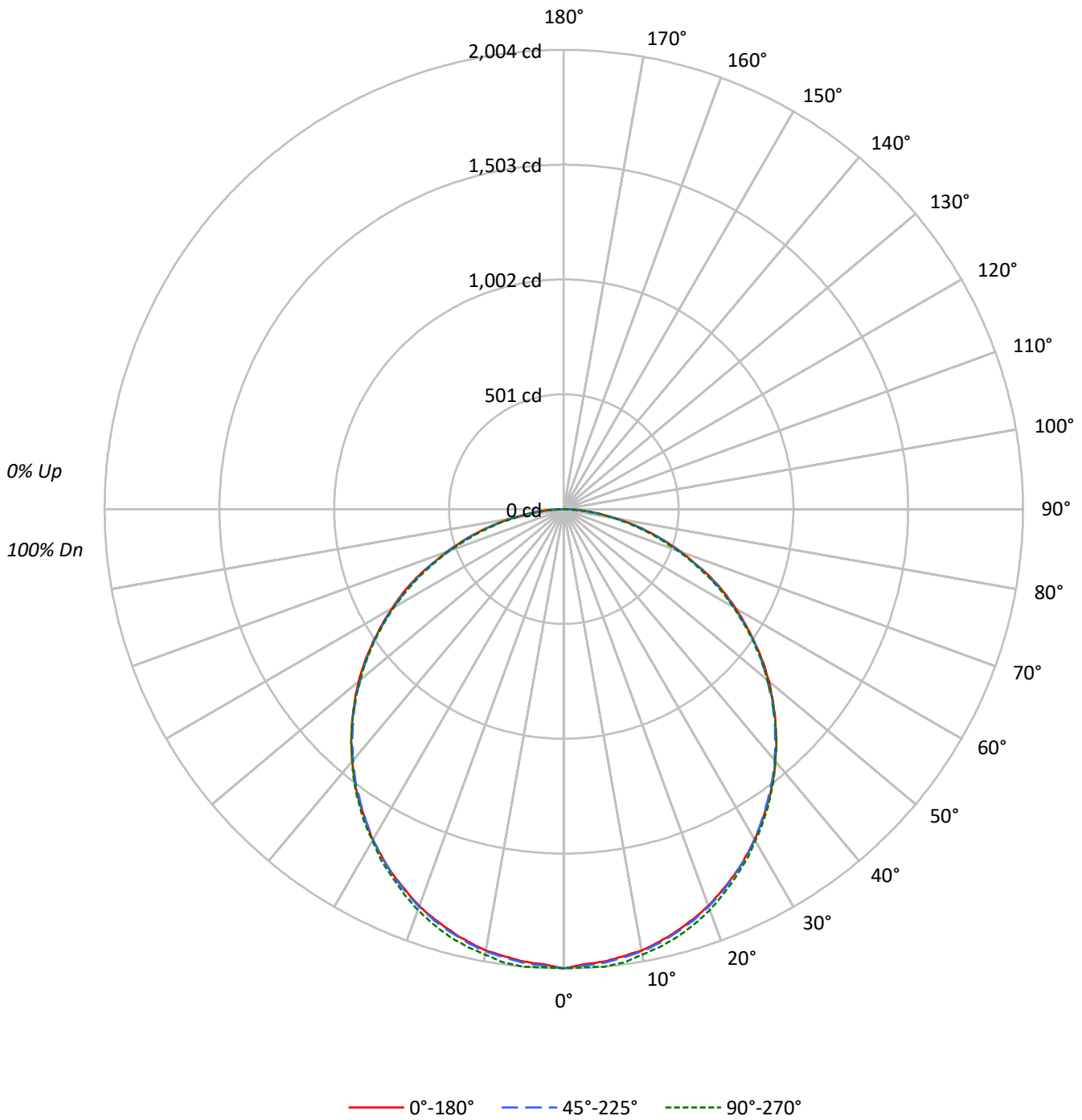
Test Method: LM-79-2019  
Report Number: P845487  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2308-131-1)  
Test Lab: INNOVATION CENTER  
Issue Date: 6/14/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ2R-F-125D-830-UNV-STD-W-4  
Description: CORELITE SQ2R RECESSED LED LUMINAIRE WITH FROSTED LENS  
1250 LUMENS PER FOOT  
Light Source: 3000K CCT, 80 CRI LEDS  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 5626.3 lumens  
Efficiency: N/A  
Efficacy: 114.4 lumens/watt  
Spacing Criteria (0/90/45): 1.24 / 1.24 / 1.36  
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

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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				
1	109	104	100	96	106	102	98	94	97	94	91	93	91	88	90	88	86	84				
2	99	91	84	78	96	89	82	77	85	80	75	82	77	73	79	75	72	70				
3	90	79	71	65	88	78	70	64	75	68	63	72	66	62	69	65	61	59				
4	82	70	61	55	80	69	61	54	66	59	54	64	58	53	62	57	52	50				
5	76	63	54	47	74	62	53	47	60	52	46	58	51	46	56	50	45	43				
6	70	57	48	41	68	56	47	41	54	46	41	52	45	40	51	45	40	38				
7	65	51	42	36	63	50	42	36	49	41	36	47	41	36	46	40	35	33				
8	60	47	38	32	59	46	38	32	45	37	32	44	37	32	42	36	32	30				
9	56	43	35	29	55	42	34	29	41	34	29	40	33	29	39	33	29	27				
10	53	40	32	26	52	39	31	26	38	31	26	37	31	26	36	30	26	24				

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	32359	32359	32359
5°	32130	32219	32483
10°	32054	32142	32367
15°	31858	31950	32269
20°	31668	31716	31996
25°	31376	31376	31570
30°	31053	31053	31155
35°	30677	30571	30786
40°	30273	30157	30273
45°	29803	29679	29803
50°	29356	29082	29150
55°	28670	28594	28439
60°	27952	27774	27600
65°	27121	26812	26499
70°	25525	25393	24878
75°	24017	23506	22826
80°	21330	20818	20056
85°	17191	15672	14672

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 22.5°  
 Vertical Angle: 45°  
 Luminance: 29990 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	189.6	3.4
10°-20°	541.7	9.6
20°-30°	814.9	14.5
30°-40°	975.0	17.3
40°-50°	1006.0	17.9
50°-60°	907.5	16.1
60°-70°	692.4	12.3
70°-80°	397.9	7.1
80°-90°	101.4	1.8
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°	1546.1	27.5
0°-40°	2521.1	44.8
0°-60°	4434.6	78.8
0°-90°	5626.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5626.3	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2004	2004	2004	2004	2004	
5°	1982	2010	1988	1991	2004	188
15°	1906	1930	1911	1917	1930	538
25°	1761	1780	1761	1764	1772	811
35°	1556	1567	1551	1556	1562	974
45°	1305	1313	1300	1302	1305	1007
55°	1018	1024	1016	1010	1010	911
65°	710	707	702	696	694	698
75°	385	382	377	369	366	406
85°	93	87	85	76	79	109
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2004.2	2004.2	2004.2	2004.2	2004.2
2.5°	1987.9	2017.9	1993.3	1998.8	2001.5
5°	1982.4	2009.7	1987.9	1990.6	2004.2
7.5°	1968.7	1998.8	1974.2	1979.7	1996.0
10°	1955.1	1982.4	1960.5	1963.3	1974.2
12.5°	1933.2	1960.5	1938.7	1944.2	1955.1
15°	1905.9	1930.5	1911.4	1916.9	1930.5
17.5°	1875.9	1903.2	1881.4	1889.6	1897.7
20°	1843.1	1865.0	1845.9	1848.6	1862.2
22.5°	1802.2	1824.0	1807.6	1807.6	1818.6
25°	1761.2	1780.3	1761.2	1763.9	1772.1
27.5°	1714.8	1731.2	1714.8	1717.5	1725.7
30°	1665.6	1682.0	1665.6	1668.4	1671.1
32.5°	1611.0	1624.7	1608.3	1611.0	1619.2
35°	1556.4	1567.3	1551.0	1556.4	1561.9
37.5°	1499.1	1507.3	1493.6	1496.4	1501.8
40°	1436.3	1444.5	1430.8	1433.5	1436.3
42.5°	1373.5	1378.9	1365.3	1368.0	1373.5
45°	1305.2	1313.4	1299.8	1302.5	1305.2
47.5°	1236.9	1242.4	1231.5	1228.8	1234.2
50°	1168.7	1171.4	1157.8	1157.8	1160.5
52.5°	1095.0	1097.7	1089.5	1084.0	1086.8
55°	1018.5	1024.0	1015.8	1010.3	1010.3
57.5°	942.0	947.5	936.6	933.9	933.9
60°	865.6	868.3	860.1	857.4	854.7
62.5°	789.1	789.1	780.9	778.2	775.5
65°	709.9	707.2	701.8	696.3	693.6
67.5°	619.8	622.6	617.1	608.9	608.9
70°	540.7	543.4	537.9	527.0	527.0
72.5°	464.2	461.5	458.7	450.5	445.1
75°	385.0	382.3	376.8	368.6	365.9
77.5°	305.8	303.1	300.4	289.4	292.2
80°	229.4	226.6	223.9	215.7	215.7
82.5°	161.1	155.6	152.9	144.7	144.7
85°	92.8	87.4	84.6	76.5	79.2
87.5°	32.8	30.0	27.3	21.8	21.8
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	23.85	25.49	24.21	25.80	26.12	23.77	25.41	24.13	25.72	26.04
	3H	25.68	27.16	26.06	27.49	27.85	25.56	27.04	25.94	27.37	27.73
	4H	26.37	27.77	26.77	28.12	28.49	26.22	27.62	26.62	27.96	28.34
	6H	26.88	28.17	27.29	28.54	28.93	26.69	27.99	27.10	28.35	28.74
	8H	27.04	28.28	27.46	28.67	29.06	26.84	28.07	27.26	28.46	28.86
	12H	27.14	28.32	27.57	28.71	29.13	26.91	28.10	27.34	28.48	28.91
4H	2H	24.48	25.88	24.88	26.23	26.60	24.42	25.82	24.82	26.17	26.54
	3H	26.54	27.71	26.95	28.11	28.51	26.43	27.60	26.84	28.00	28.40
	4H	27.36	28.42	27.79	28.83	29.27	27.21	28.28	27.64	28.69	29.12
	6H	27.99	28.92	28.44	29.36	29.81	27.81	28.74	28.26	29.18	29.63
	8H	28.20	29.06	28.66	29.51	29.97	27.99	28.86	28.45	29.31	29.77
	12H	28.34	29.12	28.82	29.59	30.06	28.11	28.89	28.59	29.36	29.83
8H	4H	27.67	28.54	28.13	28.98	29.44	27.54	28.41	28.00	28.85	29.32
	6H	28.42	29.14	28.91	29.63	30.10	28.25	28.97	28.74	29.46	29.94
	8H	28.69	29.34	29.20	29.85	30.33	28.50	29.15	29.01	29.65	30.14
	12H	28.90	29.47	29.40	29.96	30.52	28.67	29.24	29.18	29.73	30.29
12H	4H	27.70	28.48	28.18	28.95	29.42	27.58	28.36	28.06	28.83	29.30
	6H	28.47	29.12	28.98	29.62	30.11	28.31	28.96	28.82	29.46	29.95
	8H	28.80	29.37	29.30	29.86	30.42	28.61	29.18	29.12	29.67	30.24