

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: P845477

Luminaire Tested: SQ2R-F-075D-840-UNV-STD-W-4

Issue Date: 6/14/2024

**Test Information**

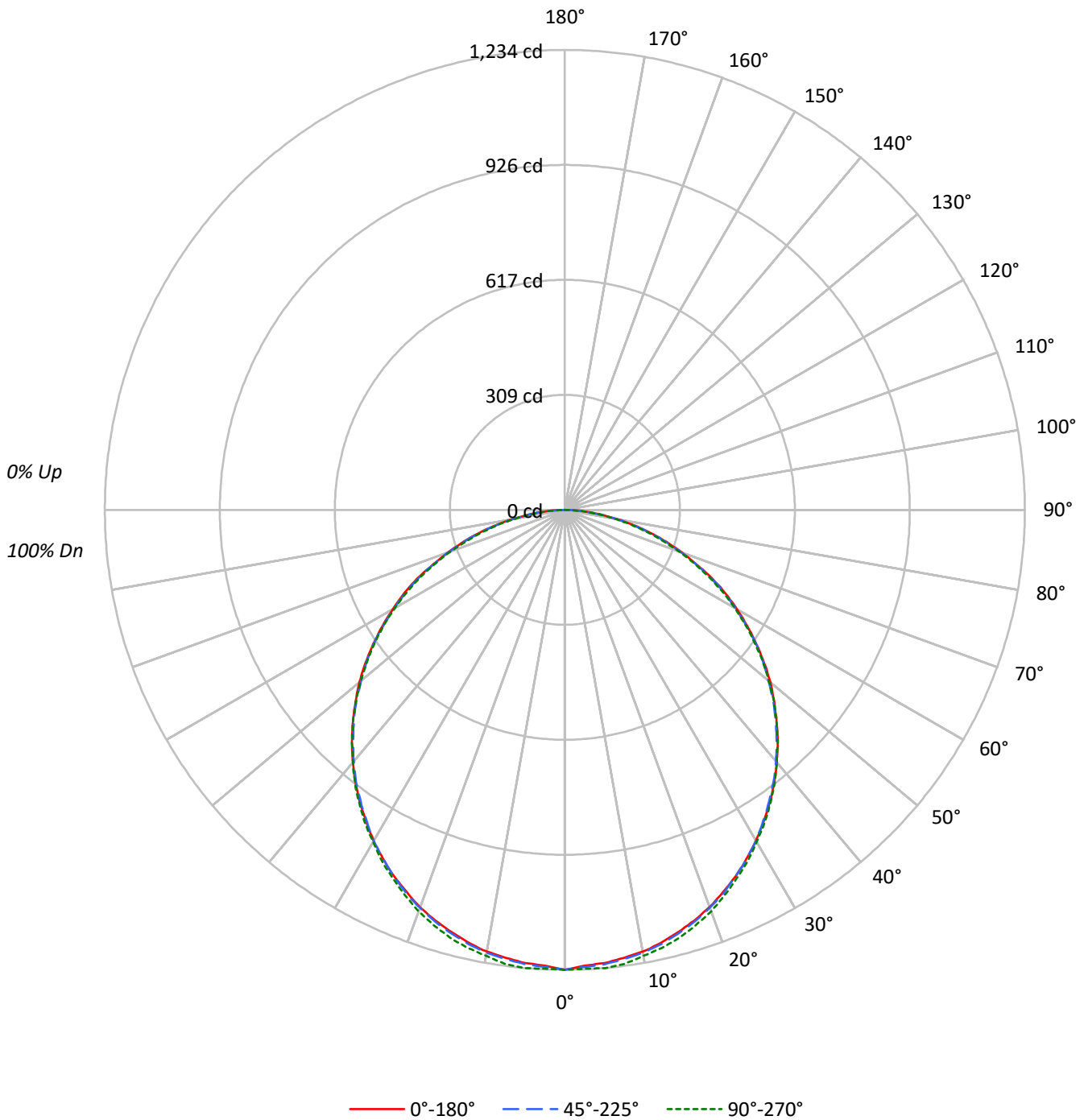
Test Method: LM-79-2019  
Report Number: P845477  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2308-131-1)  
Test Lab: INNOVATION CENTER  
Issue Date: 6/14/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ2R-F-075D-840-UNV-STD-W-4  
Description: CORELITE SQ2R RECESSED LED LUMINAIRE WITH FROSTED LENS  
750 LUMENS PER FOOT  
Light Source: 4000K CCT, 80 CRI LEDS  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3464.1 lumens  
Efficiency: N/A  
Efficacy: 129.7 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): 26.7  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
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°	19924	19924	19924
5°	19781	19836	20000
10°	19735	19790	19928
15°	19616	19671	19868
20°	19498	19527	19701
25°	19319	19319	19438
30°	19119	19119	19182
35°	18889	18821	18954
40°	18638	18567	18638
45°	18349	18271	18349
50°	18073	17904	17947
55°	17652	17605	17509
60°	17208	17102	16992
65°	16699	16508	16313
70°	15715	15635	15319
75°	14785	14473	14055
80°	13129	12822	12348
85°	10596	9652	9040

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 22.5°  
 Vertical Angle: 45°  
 Luminance: 18466 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	116.7	3.4
10°-20°	333.5	9.6
20°-30°	501.7	14.5
30°-40°	600.3	17.3
40°-50°	619.4	17.9
50°-60°	558.8	16.1
60°-70°	426.3	12.3
70°-80°	245.0	7.1
80°-90°	62.4	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°	951.9	27.5
0°-40°	1552.2	44.8
0°-60°	2730.3	78.8
0°-90°	3464.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3464.1	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1234	1234	1234	1234	1234	
5°	1220	1237	1224	1226	1234	116
15°	1174	1189	1177	1180	1189	331
25°	1084	1096	1084	1086	1091	500
35°	958	965	955	958	962	599
45°	804	809	800	802	804	620
55°	627	630	625	622	622	561
65°	437	435	432	429	427	430
75°	237	235	232	227	225	250
85°	57	54	52	47	49	67
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1234.0	1234.0	1234.0	1234.0	1234.0
2.5°	1223.9	1242.4	1227.3	1230.6	1232.3
5°	1220.5	1237.4	1223.9	1225.6	1234.0
7.5°	1212.1	1230.6	1215.5	1218.9	1228.9
10°	1203.7	1220.5	1207.1	1208.8	1215.5
12.5°	1190.3	1207.1	1193.6	1197.0	1203.7
15°	1173.5	1188.6	1176.8	1180.2	1188.6
17.5°	1155.0	1171.8	1158.3	1163.4	1168.4
20°	1134.8	1148.2	1136.5	1138.2	1146.6
22.5°	1109.6	1123.0	1112.9	1112.9	1119.7
25°	1084.4	1096.1	1084.4	1086.0	1091.1
27.5°	1055.8	1065.9	1055.8	1057.5	1062.5
30°	1025.5	1035.6	1025.5	1027.2	1028.9
32.5°	991.9	1000.3	990.2	991.9	996.9
35°	958.3	965.0	954.9	958.3	961.6
37.5°	923.0	928.0	919.6	921.3	924.7
40°	884.3	889.3	880.9	882.6	884.3
42.5°	845.6	849.0	840.6	842.3	845.6
45°	803.6	808.7	800.2	801.9	803.6
47.5°	761.6	764.9	758.2	756.5	759.9
50°	719.5	721.2	712.8	712.8	714.5
52.5°	674.2	675.8	670.8	667.4	669.1
55°	627.1	630.4	625.4	622.0	622.0
57.5°	580.0	583.4	576.6	575.0	575.0
60°	532.9	534.6	529.6	527.9	526.2
62.5°	485.9	485.9	480.8	479.1	477.5
65°	437.1	435.4	432.1	428.7	427.0
67.5°	381.6	383.3	379.9	374.9	374.9
70°	332.9	334.6	331.2	324.5	324.5
72.5°	285.8	284.1	282.4	277.4	274.0
75°	237.0	235.4	232.0	227.0	225.3
77.5°	188.3	186.6	184.9	178.2	179.9
80°	141.2	139.5	137.9	132.8	132.8
82.5°	99.2	95.8	94.1	89.1	89.1
85°	57.2	53.8	52.1	47.1	48.8
87.5°	20.2	18.5	16.8	13.4	13.4
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	22.16	23.80	22.53	24.12	24.43	22.08	23.72	22.45	24.04	24.35
	3H	23.99	25.48	24.37	25.80	26.16	23.87	25.36	24.25	25.68	26.04
	4H	24.69	26.08	25.08	26.43	26.81	24.53	25.93	24.93	26.28	26.66
	6H	25.19	26.49	25.60	26.85	27.24	25.01	26.31	25.42	26.67	27.06
	8H	25.35	26.59	25.78	26.98	27.38	25.15	26.39	25.57	26.78	27.18
	12H	25.45	26.64	25.88	27.02	27.45	25.23	26.42	25.66	26.80	27.23
4H	2H	22.80	24.20	23.20	24.54	24.92	22.74	24.13	23.13	24.48	24.86
	3H	24.85	26.03	25.26	26.42	26.82	24.74	25.92	25.15	26.31	26.71
	4H	25.67	26.73	26.10	27.15	27.58	25.53	26.59	25.96	27.00	27.44
	6H	26.30	27.23	26.76	27.67	28.13	26.13	27.05	26.58	27.49	27.95
	8H	26.51	27.38	26.97	27.82	28.29	26.31	27.18	26.77	27.62	28.09
	12H	26.65	27.43	27.13	27.91	28.38	26.42	27.20	26.90	27.68	28.15
8H	4H	25.98	26.85	26.44	27.29	27.76	25.86	26.72	26.31	27.17	27.63
	6H	26.73	27.45	27.22	27.94	28.42	26.57	27.29	27.06	27.78	28.25
	8H	27.01	27.66	27.52	28.16	28.65	26.82	27.46	27.32	27.97	28.45
	12H	27.21	27.79	27.72	28.28	28.84	26.99	27.56	27.49	28.05	28.61
12H	4H	26.01	26.79	26.49	27.27	27.74	25.89	26.67	26.37	27.15	27.62
	6H	26.78	27.43	27.29	27.94	28.42	26.62	27.27	27.13	27.78	28.26
	8H	27.11	27.69	27.62	28.18	28.74	26.93	27.50	27.43	27.99	28.55