

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: P845590

Luminaire Tested: SQ2R-PP3-050D-835-UNV-STD-W-4

Issue Date: 6/14/2024

**Test Information**

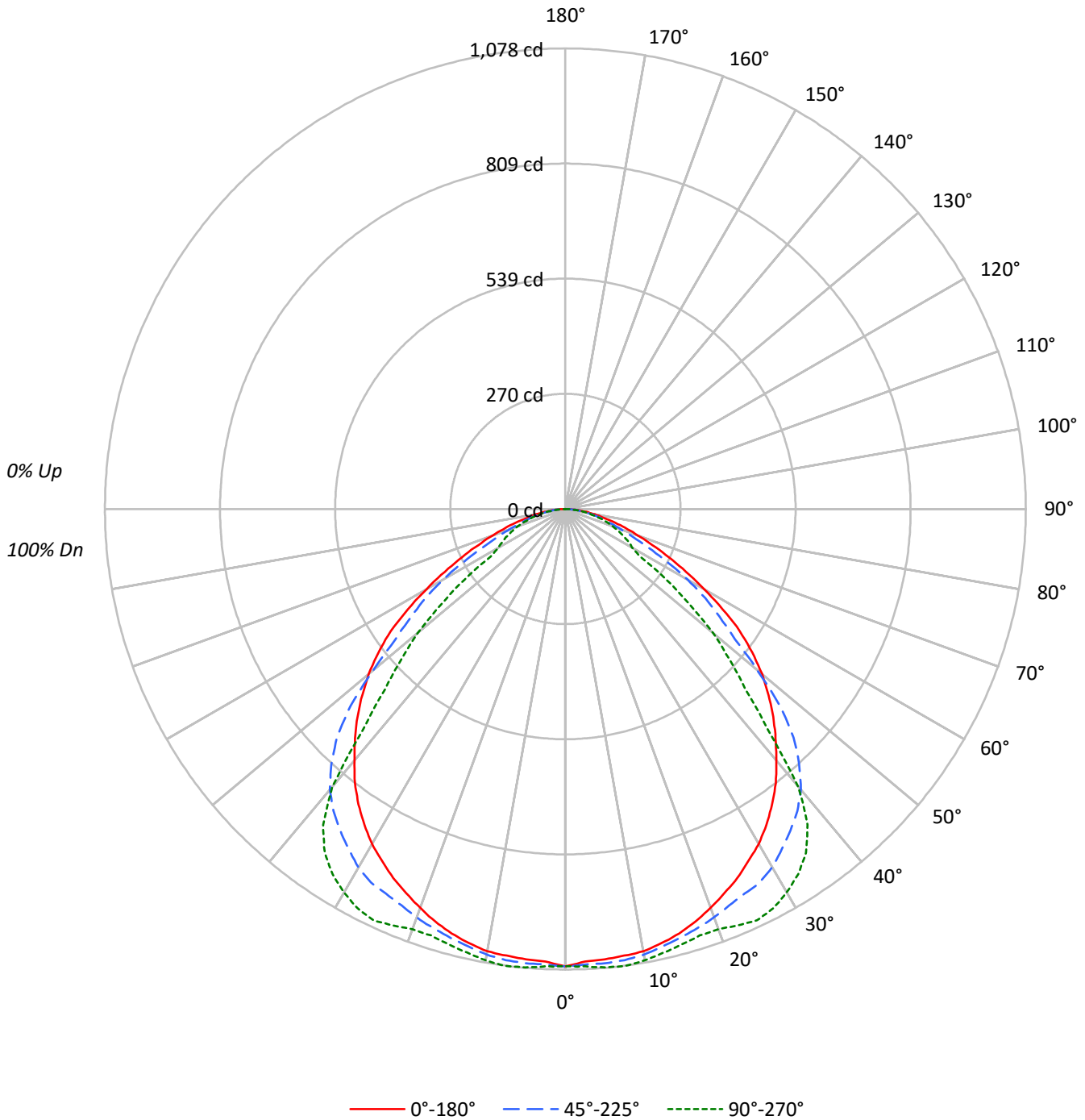
Test Method: LM-79-2019  
Report Number: P845590  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2308-131-7)  
Test Lab: INNOVATION CENTER  
Issue Date: 6/14/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ2R-PP3-050D-835-UNV-STD-W-4  
Description: CORELITE SQ2R RECESSED LED LUMINAIRE WITH PERCEIVE PRISM CONTINUOUS LENS  
500 LUMENS PER FOOT  
Light Source: 3500K CCT, 80 CRI LEDS  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2696.6 lumens  
Efficiency: N/A  
Efficacy: 151.5 lumens/watt  
Spacing Criteria (0/90/45): 1.25 / 1.41 / 1.4  
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 17.8  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: 0.9973  
Total Harmonic Distortion (THDi): 0.0531  
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	107	104	100	97	99	97	94	96	93	91	92	90	89	87				87
2	101	94	88	82	99	92	86	82	88	84	80	85	81	78	82	79	76	74				74
3	93	83	76	70	91	82	75	69	79	73	68	76	71	67	74	69	66	64				64
4	86	75	66	60	83	73	66	60	71	64	59	69	63	58	66	61	57	55				55
5	79	67	59	52	77	66	58	52	64	57	52	62	56	51	60	55	51	49				49
6	73	61	52	46	71	60	52	46	58	51	46	56	50	45	55	49	45	43				43
7	68	55	47	41	66	54	46	41	53	46	41	51	45	40	50	44	40	38				38
8	63	50	42	37	62	50	42	37	48	41	36	47	41	36	46	40	36	34				34
9	59	46	38	33	58	46	38	33	45	38	33	44	37	33	43	37	33	31				31
10	56	43	35	30	54	42	35	30	41	35	30	40	34	30	40	34	30	28				28

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

	0°	45°	90°
0°	17286	17286	17286
5°	17149	17297	17460
10°	17236	17365	17588
15°	17195	17366	17630
20°	17072	17481	17986
25°	16976	17701	18930
30°	16878	18060	19326
35°	16640	18112	19362
40°	16195	18080	17888
45°	15712	17262	13618
50°	15094	14724	11341
55°	14049	12391	8155
60°	12096	10634	5848
65°	10204	8214	5750
70°	8493	6463	5504
75°	7199	5577	5153
80°	6100	4844	4630
85°	4817	3983	2519

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 45°  
 Vertical Angle: 45°  
 Luminance: 17262 cd/sqm

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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	102.0	3.8
10°-20°	295.1	10.9
20°-30°	462.5	17.2
30°-40°	571.1	21.2
40°-50°	537.6	19.9
50°-60°	380.0	14.1
60°-70°	215.9	8.0
70°-80°	106.9	4.0
80°-90°	25.5	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°	859.6	31.9
0°-40°	1430.6	53.1
0°-60°	2348.3	87.1
0°-90°	2696.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2696.6	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1071	1071	1071	1071	1071	
5°	1058	1077	1067	1069	1077	101
15°	1029	1043	1039	1049	1055	290
25°	953	978	994	1033	1063	439
35°	844	868	919	971	982	527
45°	688	741	756	642	596	530
55°	499	530	440	333	290	441
65°	267	282	215	152	150	268
75°	115	128	89	84	83	125
85°	26	24	22	17	14	31
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1070.6	1070.6	1070.6	1070.6	1070.6
2.5°	1060.4	1079.6	1067.2	1069.4	1071.7
5°	1058.1	1077.3	1067.2	1069.4	1077.3
7.5°	1054.7	1075.1	1064.9	1068.3	1078.5
10°	1051.3	1068.3	1059.2	1064.9	1072.8
12.5°	1041.1	1057.0	1049.1	1057.0	1063.8
15°	1028.7	1043.4	1038.9	1049.1	1054.7
17.5°	1012.8	1029.8	1028.7	1042.3	1046.8
20°	993.6	1015.1	1017.4	1035.5	1046.8
22.5°	973.2	999.3	1003.8	1033.2	1054.7
25°	952.9	977.8	993.6	1033.2	1062.6
27.5°	929.1	954.0	985.7	1029.8	1053.6
30°	905.3	929.1	968.7	1015.1	1036.6
32.5°	875.9	900.8	943.8	994.7	1014.0
35°	844.2	868.0	918.9	971.0	982.3
37.5°	809.1	834.0	891.7	926.8	931.4
40°	768.4	803.5	857.8	863.5	848.7
42.5°	728.8	776.3	810.3	780.8	702.8
45°	688.1	741.2	756.0	641.7	596.4
47.5°	645.0	698.2	681.3	552.3	520.6
50°	600.9	650.7	586.2	481.0	451.5
52.5°	551.1	594.1	501.3	413.1	364.4
55°	499.1	529.6	440.2	332.7	289.7
57.5°	436.8	459.5	388.2	261.4	207.1
60°	374.6	391.6	329.3	204.8	181.1
62.5°	318.0	332.7	268.2	170.9	166.4
65°	267.1	281.8	215.0	151.6	150.5
67.5°	220.7	236.5	172.0	135.8	134.7
70°	179.9	196.9	136.9	118.8	116.6
72.5°	146.0	161.8	110.9	100.7	99.6
75°	115.4	127.9	89.4	83.7	82.6
77.5°	88.3	97.3	70.2	66.8	65.6
80°	65.6	69.0	52.1	50.9	49.8
82.5°	45.3	43.0	36.2	35.1	32.8
85°	26.0	23.8	21.5	17.0	13.6
87.5°	10.2	10.2	4.5	3.4	3.4
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	21.35	22.87	21.71	23.18	23.50	17.75	19.27	18.12	19.59	19.90
	3H	22.49	23.86	22.87	24.18	24.55	18.90	20.26	19.28	20.59	20.95
	4H	22.87	24.14	23.27	24.49	24.87	19.39	20.67	19.79	21.02	21.40
	6H	23.11	24.29	23.52	24.66	25.05	19.77	20.95	20.18	21.31	21.71
	8H	23.18	24.30	23.61	24.69	25.09	19.87	20.99	20.30	21.38	21.78
	12H	23.21	24.29	23.64	24.67	25.10	19.91	20.98	20.34	21.36	21.79
4H	2H	21.54	22.81	21.94	23.16	23.54	18.54	19.82	18.94	20.17	20.54
	3H	22.91	23.96	23.32	24.36	24.76	19.85	20.90	20.26	21.30	21.70
	4H	23.40	24.35	23.84	24.77	25.21	20.43	21.37	20.86	21.79	22.23
	6H	23.78	24.60	24.23	25.04	25.50	20.90	21.72	21.36	22.17	22.63
	8H	23.88	24.65	24.34	25.09	25.56	21.03	21.80	21.50	22.25	22.71
	12H	23.95	24.63	24.43	25.11	25.58	21.09	21.78	21.57	22.26	22.73
8H	4H	23.47	24.24	23.93	24.68	25.15	20.75	21.51	21.21	21.96	22.43
	6H	23.92	24.56	24.42	25.05	25.52	21.31	21.95	21.81	22.44	22.92
	8H	24.08	24.65	24.59	25.16	25.65	21.50	22.07	22.01	22.58	23.07
	12H	24.19	24.70	24.70	25.19	25.75	21.60	22.11	22.11	22.60	23.16
12H	4H	23.46	24.14	23.94	24.62	25.09	20.78	21.47	21.27	21.95	22.42
	6H	23.91	24.48	24.42	24.99	25.48	21.37	21.94	21.88	22.45	22.94
	8H	24.11	24.61	24.62	25.11	25.67	21.60	22.11	22.11	22.60	23.17