

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: P845475

Luminaire Tested: SQ2R-F-075D-830-UNV-STD-W-4

Issue Date: 6/14/2024

Test Information

Test Method: LM-79-2019
Report Number: P845475
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-830-UNV-STD-W-4
Description: CORELITE SQ2R RECESSED LED LUMINAIRE WITH FROSTED LENS
750 LUMENS PER FOOT
Light Source: 3000K CCT, 80 CRI LEDS
Ballast/Driver: -

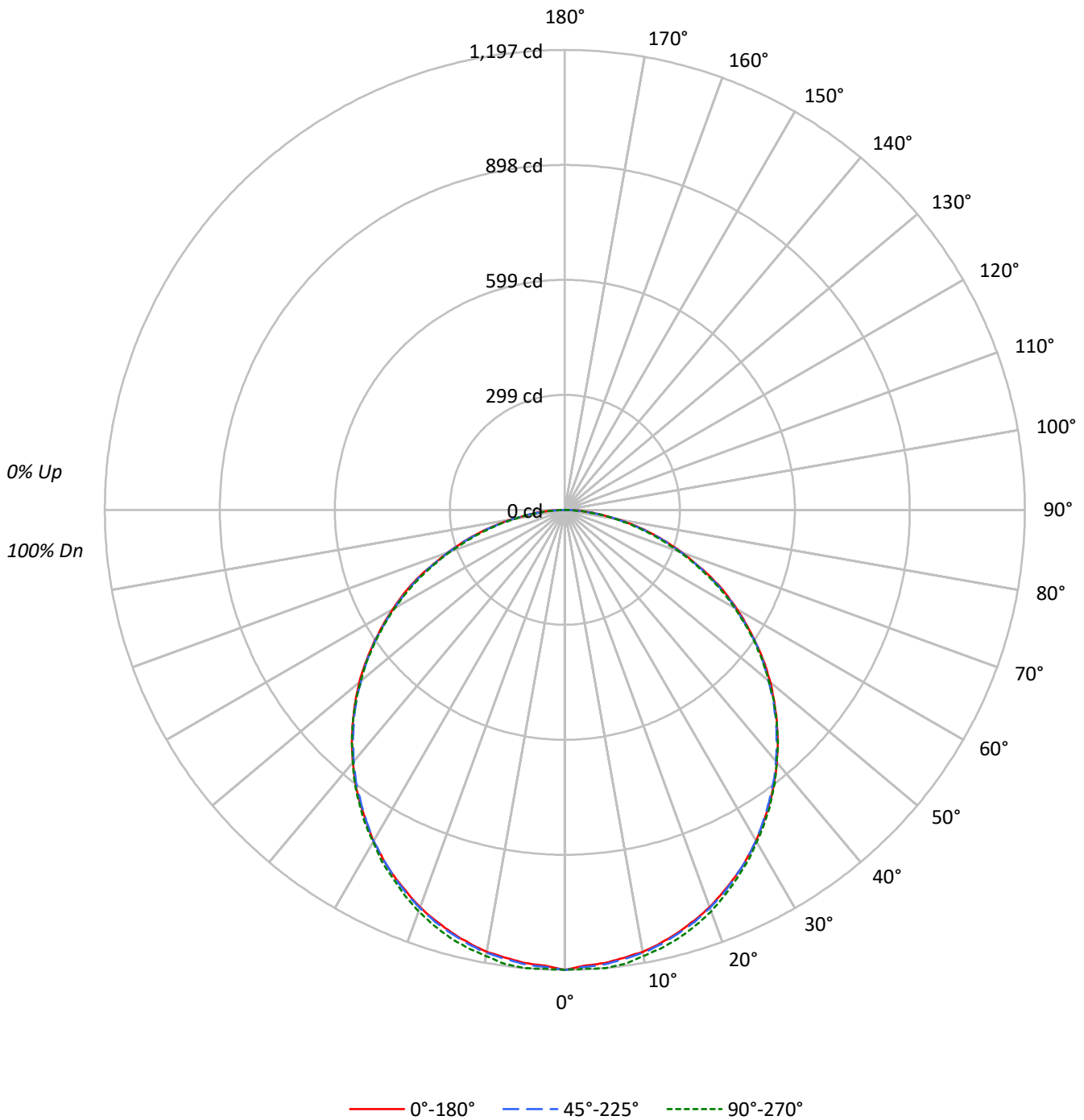
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3360.7 lumens
Efficiency: N/A
Efficacy: 125.9 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	100	100	100	
1	109	104	100	96	106	102	98	94	97	94	91	93	91	88	90	88	86	84	84	84	84	
2	99	91	84	78	96	89	82	77	85	80	75	82	77	73	79	75	72	70	70	70	70	
3	90	79	71	65	88	78	70	64	75	68	63	72	66	62	69	65	61	59	59	59	59	
4	82	70	61	55	80	69	61	54	66	59	54	64	58	53	62	57	52	50	50	50	50	
5	76	63	54	47	74	62	53	47	60	52	46	58	51	46	56	50	45	43	43	43	43	
6	70	57	48	41	68	56	47	41	54	46	41	52	45	40	51	45	40	38	38	38	38	
7	65	51	42	36	63	50	42	36	49	41	36	47	41	36	46	40	35	33	33	33	33	
8	60	47	38	32	59	46	38	32	45	37	32	44	37	32	42	36	32	30	30	30	30	
9	56	43	35	29	55	42	34	29	41	34	29	40	33	29	39	33	29	27	27	27	27	
10	53	40	32	26	52	39	31	26	38	31	26	37	31	26	36	30	26	24	24	24	24	

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	19330	19330	19330
5°	19191	19245	19404
10°	19146	19200	19333
15°	19030	19084	19275
20°	18917	18945	19113
25°	18741	18741	18857
30°	18549	18549	18610
35°	18325	18260	18390
40°	18082	18014	18082
45°	17801	17728	17801
50°	17535	17372	17412
55°	17126	17078	16988
60°	16695	16591	16485
65°	16202	16015	15828
70°	15243	15168	14861
75°	14348	14042	13637
80°	12738	12431	11985
85°	10282	9374	8762

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 22.5°
 Vertical Angle: 45°
 Luminance: 17913 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	113.2	3.4
10°-20°	323.6	9.6
20°-30°	486.8	14.5
30°-40°	582.4	17.3
40°-50°	600.9	17.9
50°-60°	542.1	16.1
60°-70°	413.6	12.3
70°-80°	237.7	7.1
80°-90°	60.6	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°	923.5	27.5
0°-40°	1505.9	44.8
0°-60°	2648.9	78.8
0°-90°	3360.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3360.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1197	1197	1197	1197	1197	
5°	1184	1200	1187	1189	1197	112
15°	1138	1153	1142	1145	1153	321
25°	1052	1063	1052	1054	1058	485
35°	930	936	926	930	933	582
45°	780	784	776	778	780	602
55°	608	612	607	604	604	544
65°	424	422	419	416	414	417
75°	230	228	225	220	219	243
85°	56	52	51	46	47	65
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1197.2	1197.2	1197.2	1197.2	1197.2
2.5°	1187.4	1205.3	1190.7	1193.9	1195.6
5°	1184.1	1200.4	1187.4	1189.0	1197.2
7.5°	1176.0	1193.9	1179.2	1182.5	1192.3
10°	1167.8	1184.1	1171.1	1172.7	1179.2
12.5°	1154.8	1171.1	1158.0	1161.3	1167.8
15°	1138.5	1153.1	1141.7	1145.0	1153.1
17.5°	1120.5	1136.8	1123.8	1128.7	1133.6
20°	1101.0	1114.0	1102.6	1104.2	1112.4
22.5°	1076.5	1089.5	1079.8	1079.8	1086.3
25°	1052.0	1063.4	1052.0	1053.7	1058.5
27.5°	1024.3	1034.1	1024.3	1025.9	1030.8
30°	994.9	1004.7	994.9	996.6	998.2
32.5°	962.3	970.5	960.7	962.3	967.2
35°	929.7	936.2	926.4	929.7	933.0
37.5°	895.4	900.3	892.2	893.8	897.1
40°	857.9	862.8	854.7	856.3	857.9
42.5°	820.4	823.7	815.5	817.2	820.4
45°	779.6	784.5	776.4	778.0	779.6
47.5°	738.9	742.1	735.6	734.0	737.2
50°	698.1	699.7	691.6	691.6	693.2
52.5°	654.0	655.7	650.8	647.5	649.2
55°	608.4	611.6	606.7	603.5	603.5
57.5°	562.7	566.0	559.4	557.8	557.8
60°	517.0	518.7	513.8	512.1	510.5
62.5°	471.4	471.4	466.5	464.8	463.2
65°	424.1	422.4	419.2	415.9	414.3
67.5°	370.2	371.9	368.6	363.7	363.7
70°	322.9	324.6	321.3	314.8	314.8
72.5°	277.3	275.6	274.0	269.1	265.9
75°	230.0	228.3	225.1	220.2	218.6
77.5°	182.7	181.0	179.4	172.9	174.5
80°	137.0	135.4	133.7	128.9	128.9
82.5°	96.2	93.0	91.3	86.4	86.4
85°	55.5	52.2	50.6	45.7	47.3
87.5°	19.6	17.9	16.3	13.0	13.0
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	22.06	23.70	22.42	24.01	24.33	21.98	23.62	22.34	23.93	24.25
	3H	23.89	25.37	24.27	25.70	26.06	23.77	25.25	24.15	25.58	25.94
	4H	24.58	25.98	24.98	26.33	26.70	24.43	25.83	24.83	26.17	26.55
	6H	25.09	26.38	25.50	26.75	27.14	24.90	26.20	25.31	26.56	26.95
	8H	25.25	26.49	25.67	26.87	27.27	25.05	26.28	25.47	26.67	27.07
	12H	25.35	26.53	25.78	26.92	27.34	25.12	26.31	25.55	26.69	27.12
4H	2H	22.69	24.09	23.09	24.44	24.81	22.63	24.03	23.03	24.38	24.75
	3H	24.75	25.92	25.16	26.32	26.72	24.64	25.81	25.05	26.21	26.61
	4H	25.57	26.63	26.00	27.04	27.48	25.42	26.49	25.85	26.90	27.33
	6H	26.20	27.13	26.65	27.57	28.02	26.02	26.95	26.47	27.39	27.84
	8H	26.41	27.27	26.87	27.72	28.18	26.20	27.07	26.66	27.52	27.98
	12H	26.55	27.33	27.02	27.80	28.27	26.32	27.10	26.80	27.57	28.04
8H	4H	25.88	26.74	26.34	27.19	27.65	25.75	26.62	26.21	27.06	27.53
	6H	26.63	27.35	27.12	27.84	28.31	26.46	27.18	26.95	27.67	28.15
	8H	26.90	27.55	27.41	28.06	28.54	26.71	27.36	27.22	27.86	28.35
	12H	27.11	27.68	27.61	28.17	28.73	26.88	27.45	27.39	27.94	28.50
12H	4H	25.91	26.69	26.39	27.16	27.63	25.79	26.57	26.27	27.04	27.51
	6H	26.68	27.33	27.19	27.83	28.32	26.52	27.17	27.03	27.67	28.16
	8H	27.01	27.58	27.51	28.07	28.63	26.82	27.40	27.33	27.89	28.45