

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: P845476

Luminaire Tested: SQ2R-F-075D-835-UNV-STD-W-4

Issue Date: 6/14/2024

Test Information

Test Method: LM-79-2019
Report Number: P845476
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-835-UNV-STD-W-4
Description: CORELITE SQ2R RECESSED LED LUMINAIRE WITH FROSTED LENS
750 LUMENS PER FOOT
Light Source: 3500K CCT, 80 CRI LEDS
Ballast/Driver: -

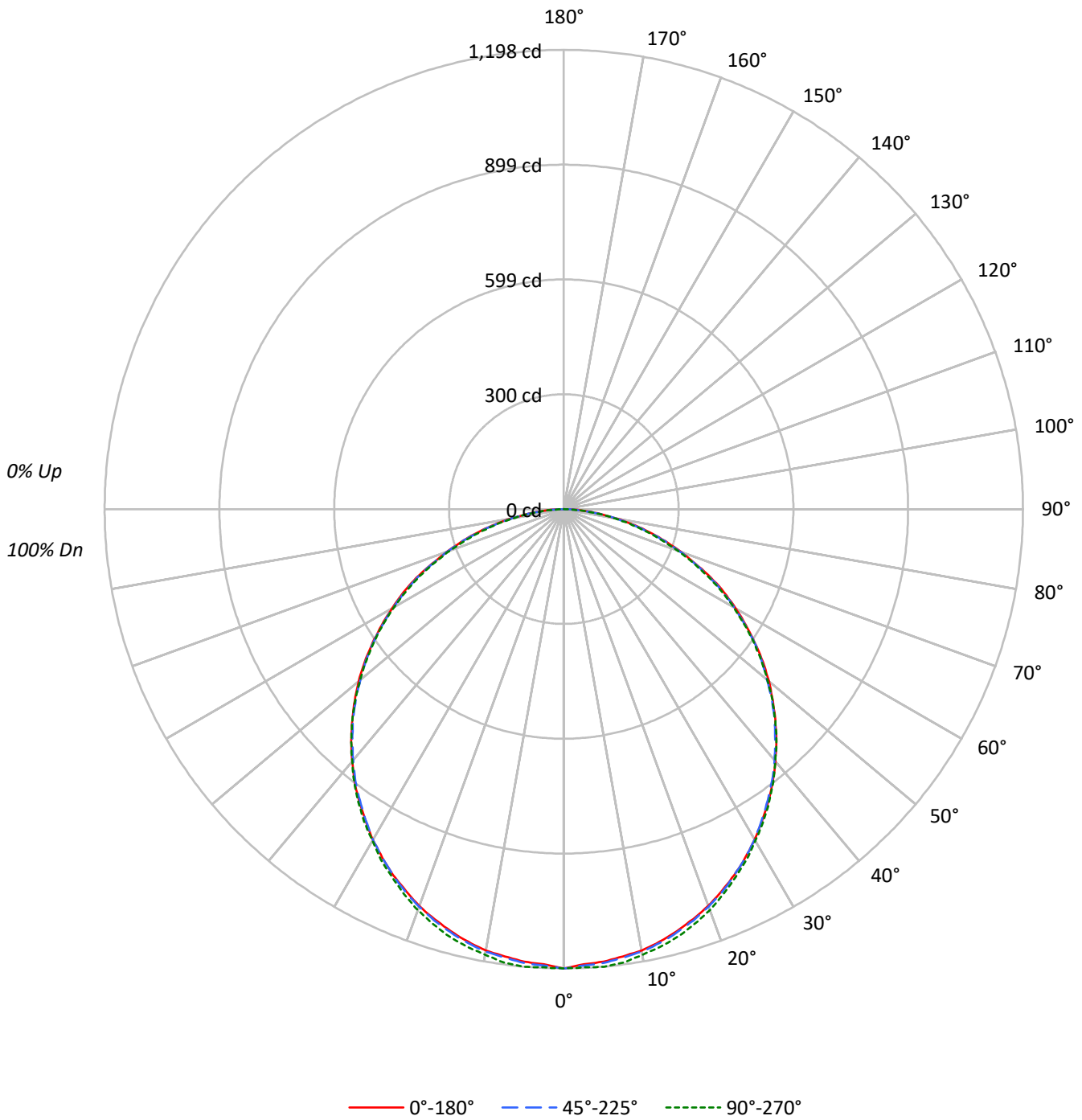
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3363.8 lumens
Efficiency: N/A
Efficacy: 126.0 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°	19348	19348	19348
5°	19209	19263	19421
10°	19164	19216	19351
15°	19047	19102	19293
20°	18933	18962	19130
25°	18759	18759	18875
30°	18565	18565	18627
35°	18341	18277	18406
40°	18099	18029	18099
45°	17817	17744	17817
50°	17550	17387	17427
55°	17140	17095	17002
60°	16711	16604	16501
65°	16218	16031	15843
70°	15257	15182	14875
75°	14361	14055	13649
80°	12748	12450	11994
85°	10282	9374	8762

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 22.5°
 Vertical Angle: 45°
 Luminance: 17929 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	113.3	3.4
10°-20°	323.8	9.6
20°-30°	487.2	14.5
30°-40°	582.9	17.3
40°-50°	601.4	17.9
50°-60°	542.6	16.1
60°-70°	414.0	12.3
70°-80°	237.9	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°	924.4	27.5
0°-40°	1507.3	44.8
0°-60°	2651.3	78.8
0°-90°	3363.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3363.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1198	1198	1198	1198	1198	
5°	1185	1202	1188	1190	1198	113
15°	1140	1154	1143	1146	1154	322
25°	1053	1064	1053	1055	1060	485
35°	930	937	927	930	934	582
45°	780	785	777	779	780	602
55°	609	612	607	604	604	545
65°	424	423	420	416	415	417
75°	230	229	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°	1198.3	<i>1198.3</i>	1198.3	1198.3	1198.3
2.5°	<i>1188.5</i>	<i>1206.4</i>	<i>1191.7</i>	<i>1195.0</i>	<i>1196.6</i>
5°	1185.2	<i>1201.5</i>	1188.5	1190.1	1198.3
7.5°	1177.0	<i>1195.0</i>	1180.3	1183.6	1193.4
10°	1168.9	<i>1185.2</i>	1172.1	1173.8	1180.3
12.5°	1155.8	<i>1172.1</i>	1159.1	1162.4	1168.9
15°	1139.5	<i>1154.2</i>	1142.8	1146.0	1154.2
17.5°	1121.5	<i>1137.9</i>	1124.8	1129.7	1134.6
20°	1101.9	<i>1115.0</i>	1103.6	1105.2	1113.4
22.5°	1077.5	<i>1090.5</i>	1080.7	1080.7	1087.3
25°	1053.0	<i>1064.4</i>	1053.0	1054.6	1059.5
27.5°	1025.2	<i>1035.0</i>	1025.2	1026.9	1031.8
30°	995.8	<i>1005.6</i>	995.8	997.5	999.1
32.5°	963.2	<i>971.3</i>	961.6	963.2	968.1
35°	930.5	<i>937.1</i>	927.3	930.5	933.8
37.5°	896.3	<i>901.1</i>	893.0	894.6	897.9
40°	858.7	<i>863.6</i>	855.4	857.1	858.7
42.5°	821.2	<i>824.4</i>	816.3	817.9	821.2
45°	780.3	<i>785.2</i>	777.1	778.7	780.3
47.5°	739.5	<i>742.8</i>	736.3	734.6	737.9
50°	698.7	<i>700.3</i>	692.2	692.2	693.8
52.5°	654.6	<i>656.3</i>	651.4	648.1	649.7
55°	608.9	<i>612.2</i>	607.3	604.0	604.0
57.5°	563.2	<i>566.5</i>	560.0	558.3	558.3
60°	517.5	<i>519.1</i>	514.2	512.6	511.0
62.5°	471.8	<i>471.8</i>	466.9	465.3	463.6
65°	424.5	<i>422.8</i>	419.6	416.3	414.7
67.5°	370.6	<i>372.2</i>	368.9	364.1	364.1
70°	323.2	<i>324.9</i>	321.6	315.1	315.1
72.5°	277.5	<i>275.9</i>	274.3	269.4	266.1
75°	230.2	<i>228.6</i>	225.3	220.4	218.8
77.5°	182.8	<i>181.2</i>	179.6	173.0	174.7
80°	137.1	<i>135.5</i>	133.9	129.0	129.0
82.5°	96.3	<i>93.1</i>	91.4	86.5	86.5
85°	55.5	<i>52.2</i>	50.6	45.7	47.3
87.5°	19.6	<i>18.0</i>	16.3	13.1	13.1
90°	0.0	<i>0.0</i>	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	23.94	24.25
	3H	23.89	25.38	24.27	25.70	26.06	23.77	25.26	24.15	25.58	25.94
	4H	24.58	25.98	24.98	26.33	26.71	24.43	25.83	24.83	26.18	26.55
	6H	25.09	26.39	25.50	26.75	27.14	24.91	26.20	25.32	26.57	26.96
	8H	25.25	26.49	25.67	26.88	27.28	25.05	26.29	25.47	26.68	27.07
	12H	25.35	26.54	25.78	26.92	27.35	25.13	26.31	25.56	26.70	27.12
4H	2H	22.70	24.09	23.09	24.44	24.82	22.63	24.03	23.03	24.38	24.76
	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	27.05	27.48	25.43	26.49	25.86	26.90	27.34
	6H	26.20	27.13	26.66	27.57	28.03	26.02	26.95	26.48	27.39	27.85
	8H	26.41	27.28	26.87	27.72	28.18	26.21	27.08	26.67	27.52	27.98
	12H	26.55	27.33	27.03	27.80	28.27	26.32	27.10	26.80	27.58	28.05
8H	4H	25.88	26.75	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	27.19	26.96	27.67	28.15
	8H	26.91	27.55	27.41	28.06	28.54	26.71	27.36	27.22	27.87	28.35
	12H	27.11	27.68	27.62	28.17	28.73	26.88	27.46	27.39	27.95	28.51
12H	4H	25.91	26.69	26.39	27.17	27.64	25.79	26.57	26.27	27.05	27.51
	6H	26.68	27.33	27.19	27.84	28.32	26.52	27.17	27.03	27.68	28.16
	8H	27.01	27.58	27.52	28.07	28.63	26.83	27.40	27.33	27.89	28.45