

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: P855568

Luminaire Tested: SQ2-F-075D-835-UNV-STD-W-4

Issue Date: 7/12/2024

**Test Information**

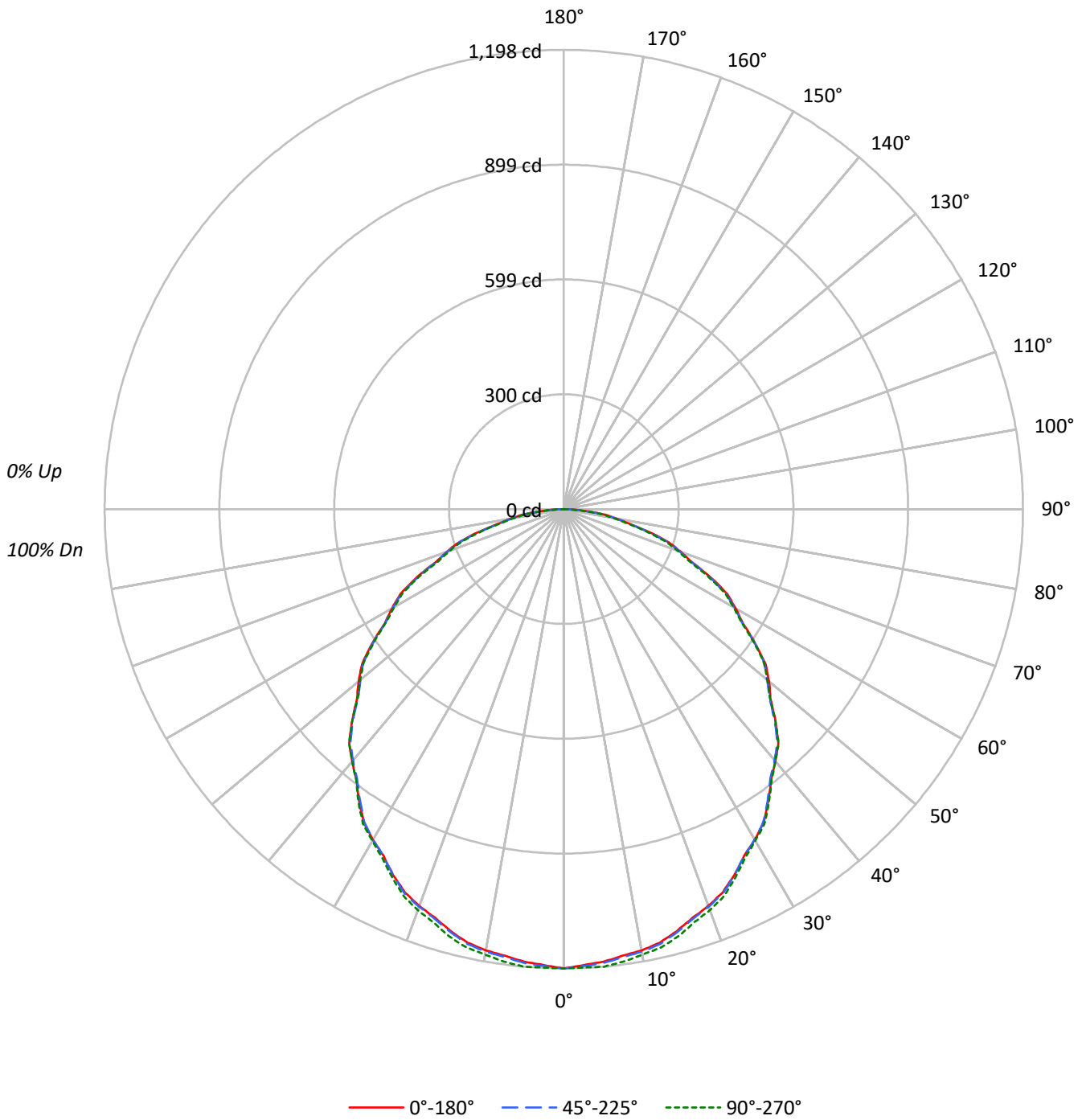
Test Method: LM-79-2019  
Report Number: P855568  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2308-131-13)  
Test Lab: INNOVATION CENTER  
Issue Date: 7/12/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ2-F-075D-835-UNV-STD-W-4  
Description: CORELITE SQ2 SURFACE LED LUMINAIRE  
DOWNLIGHT 750 LUMENS PER FOOT  
DIRECT ONLY  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3363.7 lumens  
Efficiency: N/A  
Efficacy: 126.0 lumens/watt  
Spacing Criteria (0/90/45): 1.24 / 1.25 / 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	
1	109	104	100	96	106	102	98	94	97	94	91	93	91	88	90	88	86	84			84	
2	99	90	84	78	96	89	82	77	85	80	75	82	77	73	79	75	72	70			70	
3	90	79	71	65	88	78	70	64	75	68	63	72	66	62	69	65	61	59			59	
4	82	70	61	55	80	69	61	54	66	59	54	64	58	53	62	57	52	50			50	
5	76	63	54	47	74	62	53	47	60	52	46	58	51	46	56	50	45	43			43	
6	70	57	48	41	68	56	47	41	54	46	41	52	45	40	50	44	40	38			38	
7	65	51	42	36	63	50	42	36	49	41	36	47	41	36	46	40	35	33			33	
8	60	47	38	32	59	46	38	32	45	37	32	43	37	32	42	36	32	30			30	
9	56	43	35	29	55	42	34	29	41	34	29	40	33	29	39	33	29	27			27	
10	53	40	32	26	52	39	31	26	38	31	26	37	31	26	36	30	26	24			24	

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

	0°	45°	90°
0°	19346	19346	19346
5°	19209	19263	19420
10°	19164	19218	19351
15°	19047	19102	19293
20°	18933	18962	19129
25°	18759	18759	18875
30°	18567	18567	18627
35°	18343	18277	18404
40°	18099	18029	18099
45°	17817	17744	17817
50°	17550	17384	17427
55°	17140	17095	17005
60°	16711	16604	16498
65°	16218	16027	15840
70°	15257	15182	14875
75°	14361	14055	13649
80°	12757	12450	11994
85°	10282	9374	8762

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 22.5°  
 Vertical Angle: 45°  
 Luminance: 17927 cd/sqm

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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	113.3	3.4
10°-20°	323.6	9.6
20°-30°	486.9	14.5
30°-40°	582.6	17.3
40°-50°	601.1	17.9
50°-60°	542.3	16.1
60°-70°	413.8	12.3
70°-80°	237.9	7.1
80°-90°	62.1	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°	923.8	27.5
0°-40°	1506.5	44.8
0°-60°	2649.9	78.8
0°-90°	3363.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3363.7	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1198	1198	1198	1198	1198	
5°	1185	1201	1188	1190	1198	113
15°	1140	1154	1143	1148	1154	321
25°	1053	1064	1053	1055	1060	485
35°	931	937	927	931	934	582
45°	780	785	777	779	780	602
55°	609	612	607	604	604	544
65°	424	423	420	416	415	417
75°	230	229	225	220	219	243
85°	56	52	51	46	47	66
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1198.2	1198.2	1198.2	1198.2	1198.2
2.5°	1190.4	1204.4	1193.0	1195.7	1197.0
5°	1185.2	1201.1	1188.5	1190.3	1198.2
7.5°	1175.3	1192.7	1178.6	1181.8	1190.7
10°	1168.9	1184.9	1172.2	1173.9	1180.3
12.5°	1158.4	1174.4	1161.7	1164.8	1171.2
15°	1139.5	1153.8	1142.8	1147.8	1154.2
17.5°	1117.6	1132.9	1120.6	1124.9	1130.3
20°	1101.9	1114.7	1103.6	1105.4	1113.3
22.5°	1082.3	1095.1	1085.3	1085.7	1092.5
25°	1053.0	1064.1	1053.0	1054.7	1059.5
27.5°	1019.3	1028.9	1019.3	1021.1	1025.2
30°	995.9	1005.4	995.9	997.4	999.1
32.5°	969.7	978.0	968.4	970.2	974.2
35°	930.6	936.9	927.3	930.6	933.7
37.5°	888.7	893.6	885.4	887.1	890.1
40°	858.7	863.5	855.4	857.1	858.7
42.5°	828.6	832.2	824.1	825.8	828.6
45°	780.3	785.1	777.1	778.7	780.3
47.5°	731.4	734.2	727.4	726.2	729.1
50°	698.7	700.3	692.1	692.2	693.8
52.5°	663.5	665.1	659.5	656.9	658.5
55°	608.9	612.1	607.3	604.1	604.1
57.5°	554.1	556.9	550.8	549.2	548.9
60°	517.5	519.1	514.2	512.5	510.9
62.5°	481.0	481.3	476.3	474.7	473.1
65°	424.5	422.9	419.5	416.2	414.6
67.5°	361.1	362.7	359.5	354.2	354.2
70°	323.2	324.8	321.6	315.1	315.1
72.5°	286.7	285.7	283.7	278.5	275.9
75°	230.2	228.6	225.3	220.3	218.8
77.5°	173.7	172.1	170.4	164.2	165.6
80°	137.2	135.6	133.9	129.0	129.0
82.5°	104.5	101.6	99.9	95.1	95.1
85°	55.5	52.3	50.6	45.7	47.3
87.5°	15.6	14.4	13.0	10.4	10.4
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	22.06	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	25.55	26.70	27.12
4H	2H	22.69	24.09	23.09	24.44	24.82	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	25.43	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	27.81	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	28.55	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	27.63	25.79	26.57	26.27	27.04	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	26.82	27.40	27.33	27.89	28.45