

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: P855205

Luminaire Tested: SQ2-F-050U-075D-835-UNV-STD-W-4

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P855205
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-10, G2-2308-131-13)
Test Lab: INNOVATION CENTER
Issue Date: 7/12/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ2-F-050U-075D-835-UNV-STD-W-4
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE
DOWNLIGHT 750 LUMENS PER FOOT
UPLIGHT 500 LUMENS PER FOOT
Light Source: -
Ballast/Driver: -

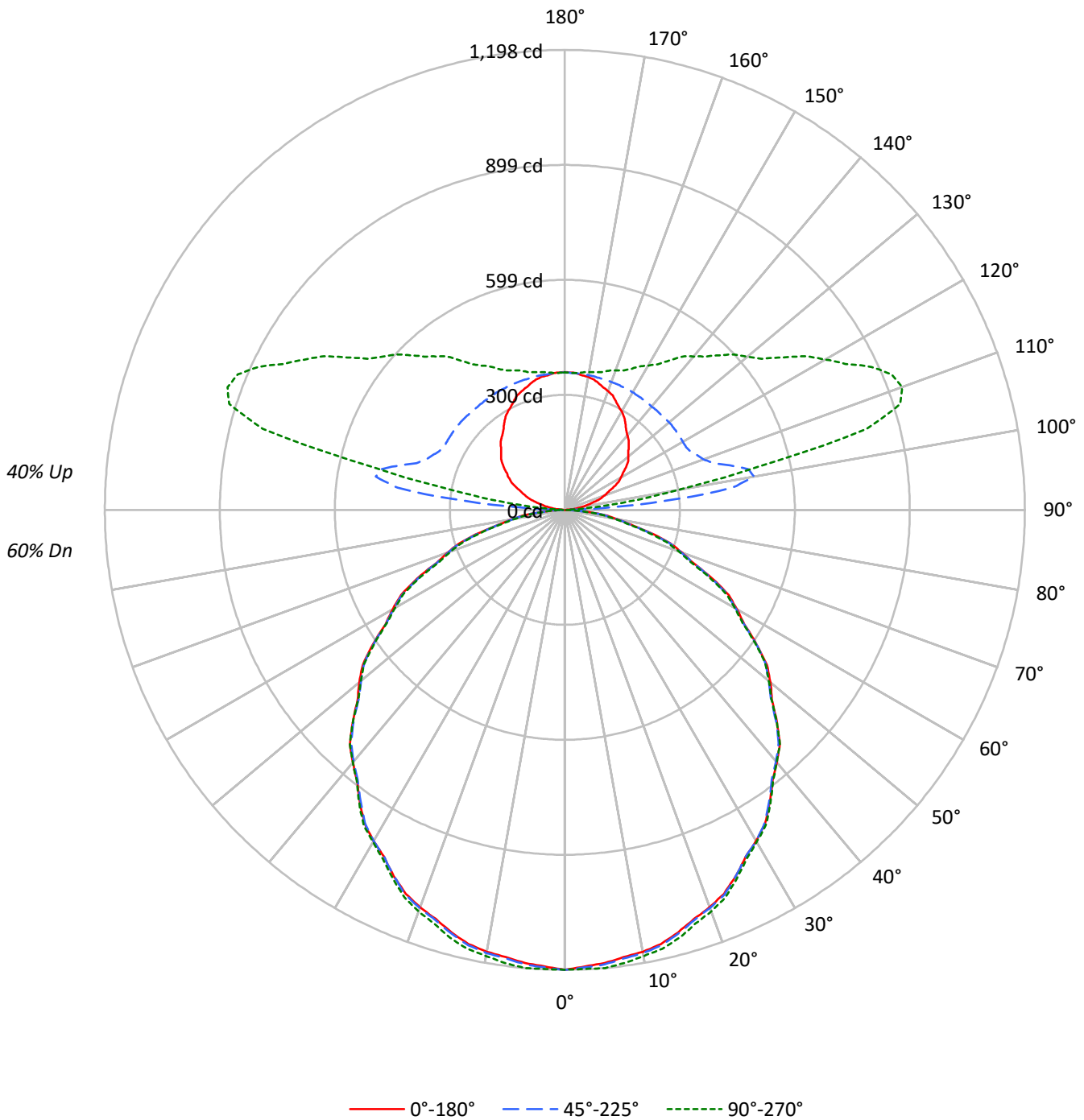
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5588.5 lumens
Efficiency: N/A
Efficacy: 134.7 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: Semi-Direct

Input Watts (W): 41.5
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	110	110	110	110	102	102	102	102	89	89	89	77	77	77	65	65	65	60				
1	100	95	91	88	93	89	86	83	78	75	73	67	65	64	58	56	55	50				
2	91	83	77	71	85	78	72	68	68	64	60	59	56	53	50	48	46	42				
3	83	73	65	59	77	68	62	56	60	55	50	52	48	44	45	42	39	35				
4	76	64	56	50	70	61	53	48	53	47	43	46	42	38	40	36	33	30				
5	69	57	49	43	65	54	46	41	47	41	37	41	37	33	36	32	29	26				
6	64	51	43	37	59	48	41	35	43	37	32	37	32	29	32	28	25	23				
7	59	46	38	33	55	44	36	31	39	33	28	34	29	25	29	26	23	20				
8	55	42	34	29	51	40	33	28	35	29	25	31	26	23	27	23	20	18				
9	51	39	31	26	48	36	29	25	32	27	22	29	24	20	25	21	18	16				
10	48	35	28	23	45	33	27	22	30	24	20	26	22	18	23	19	17	15				

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	2.0
10°-20°	323.6	5.8
20°-30°	486.9	8.7
30°-40°	582.6	10.4
40°-50°	601.1	10.8
50°-60°	542.3	9.7
60°-70°	413.8	7.4
70°-80°	237.9	4.3
80°-90°	62.5	1.1
90°-100°	142.7	2.6
100°-110°	452.5	8.1
110°-120°	443.7	7.9
120°-130°	361.1	6.5
130°-140°	294.4	5.3
140°-150°	229.5	4.1
150°-160°	165.4	3.0
160°-170°	101.0	1.8
170°-180°	34.1	0.6
0°-30°	923.8	16.5
0°-40°	1506.5	27.0
0°-60°	2649.9	47.4
0°-90°	3364.2	60.2
90°-120°	1038.9	18.6
90°-150°	1923.8	34.4
90°-180°	2224.0	39.8
0°-180°	5588.5	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	64
90°	0	1	3	3	3	3
95°	19	58	259	96	62	22
105°	79	111	446	850	814	83
115°	141	167	360	749	881	139
125°	195	218	355	587	692	173
135°	235	259	352	505	569	182
145°	275	296	352	436	474	172
155°	313	324	354	389	404	144
165°	341	345	355	368	372	96
175°	357	356	357	359	358	34
180°	358	358	358	358	358	



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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	14.6	13.7	11.1	11.1
90°	0.0	1.1	3.4	3.4	3.4
92.5°	6.3	25.0	80.0	26.6	18.7
95°	19.1	57.7	259.0	96.1	61.9
97.5°	35.6	74.8	438.9	274.2	168.3
100°	47.3	84.8	500.1	455.9	296.3
102.5°	60.0	95.6	489.3	669.6	512.5
105°	78.9	110.8	446.1	849.7	814.3
107.5°	97.8	127.3	404.8	868.4	916.0
110°	110.3	139.0	384.1	846.8	934.9



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	123.0	149.8	372.4	809.5	921.4
115°	140.8	167.3	360.4	748.7	880.9
117.5°	158.1	183.2	355.7	690.1	823.4
120°	169.0	193.2	354.8	654.0	782.9
122.5°	179.8	203.1	354.8	624.9	745.0
125°	194.9	218.0	354.8	587.0	691.6
127.5°	208.1	230.4	354.8	557.6	646.7
130°	216.3	239.3	354.8	540.3	620.6
132.5°	224.4	247.5	353.9	526.6	599.0
135°	235.4	258.6	352.5	504.9	568.9
137.5°	246.3	270.5	352.3	484.4	541.4
140°	253.5	277.7	351.4	469.8	521.5
142.5°	262.4	285.7	352.3	455.3	503.5
145°	274.9	295.8	352.5	435.7	474.2
147.5°	287.2	305.1	352.7	418.4	449.8
150°	296.3	310.5	353.6	408.3	433.7
152.5°	303.4	316.0	353.6	400.2	421.1
155°	313.1	324.1	353.6	389.0	404.3
157.5°	323.5	331.0	354.8	382.0	392.7
160°	328.9	335.5	354.8	377.5	386.4
162.5°	334.3	339.2	354.8	373.9	380.0
165°	341.3	344.6	354.8	368.4	371.8
167.5°	347.9	348.7	355.9	364.6	367.5
170°	351.4	351.4	355.9	362.7	363.8
172.5°	353.2	354.1	355.9	360.9	361.1
175°	357.0	356.0	357.0	359.3	358.2
177.5°	358.2	357.3	357.3	359.1	357.3
180°	358.2	358.2	358.2	358.2	358.2



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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	19.15	20.12	20.01	21.01	22.12	19.07	20.04	19.93	20.93	22.05
	3H	20.94	21.81	21.81	22.71	23.85	20.82	21.69	21.69	22.59	23.73
	4H	21.60	22.43	22.49	23.33	24.48	21.45	22.28	22.34	23.18	24.33
	6H	22.08	22.84	22.98	23.75	24.91	21.89	22.66	22.79	23.56	24.73
	8H	22.22	22.95	23.13	23.87	25.04	22.02	22.74	22.93	23.67	24.83
	12H	22.30	22.99	23.21	23.91	25.10	22.07	22.77	22.99	23.69	24.88
4H	2H	19.71	20.54	20.61	21.44	22.59	19.65	20.48	20.55	21.38	22.53
	3H	21.71	22.40	22.62	23.33	24.50	21.60	22.29	22.51	23.23	24.39
	4H	22.50	23.14	23.42	24.06	25.26	22.36	22.99	23.28	23.92	25.11
	6H	23.10	23.65	24.03	24.60	25.79	22.92	23.47	23.85	24.42	25.61
	8H	23.29	23.80	24.23	24.75	25.96	23.09	23.60	24.02	24.55	25.75
	12H	23.40	23.86	24.35	24.82	26.04	23.17	23.63	24.13	24.60	25.81
8H	4H	22.76	23.27	23.70	24.22	25.43	22.63	23.15	23.57	24.09	25.30
	6H	23.48	23.91	24.44	24.89	26.10	23.32	23.74	24.28	24.73	25.94
	8H	23.75	24.13	24.72	25.10	26.33	23.56	23.93	24.53	24.91	26.14
	12H	23.93	24.26	24.90	25.23	26.50	23.70	24.03	24.67	25.00	26.27
12H	4H	22.76	23.22	23.71	24.18	25.40	22.64	23.10	23.59	24.06	25.28
	6H	23.53	23.90	24.50	24.88	26.11	23.37	23.74	24.34	24.72	25.95
	8H	23.83	24.16	24.80	25.13	26.40	23.64	23.97	24.61	24.94	26.21