

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: P853672

Luminaire Tested: SQ2-F-050U-075D-830-UNV-STD-W-4

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P853672
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-830-UNV-STD-W-4
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE
DOWNLIGHT 750 LUMENS PER FOOT
UPLIGHT 500 LUMENS PER FOOT
Light Source: -
Ballast/Driver: -

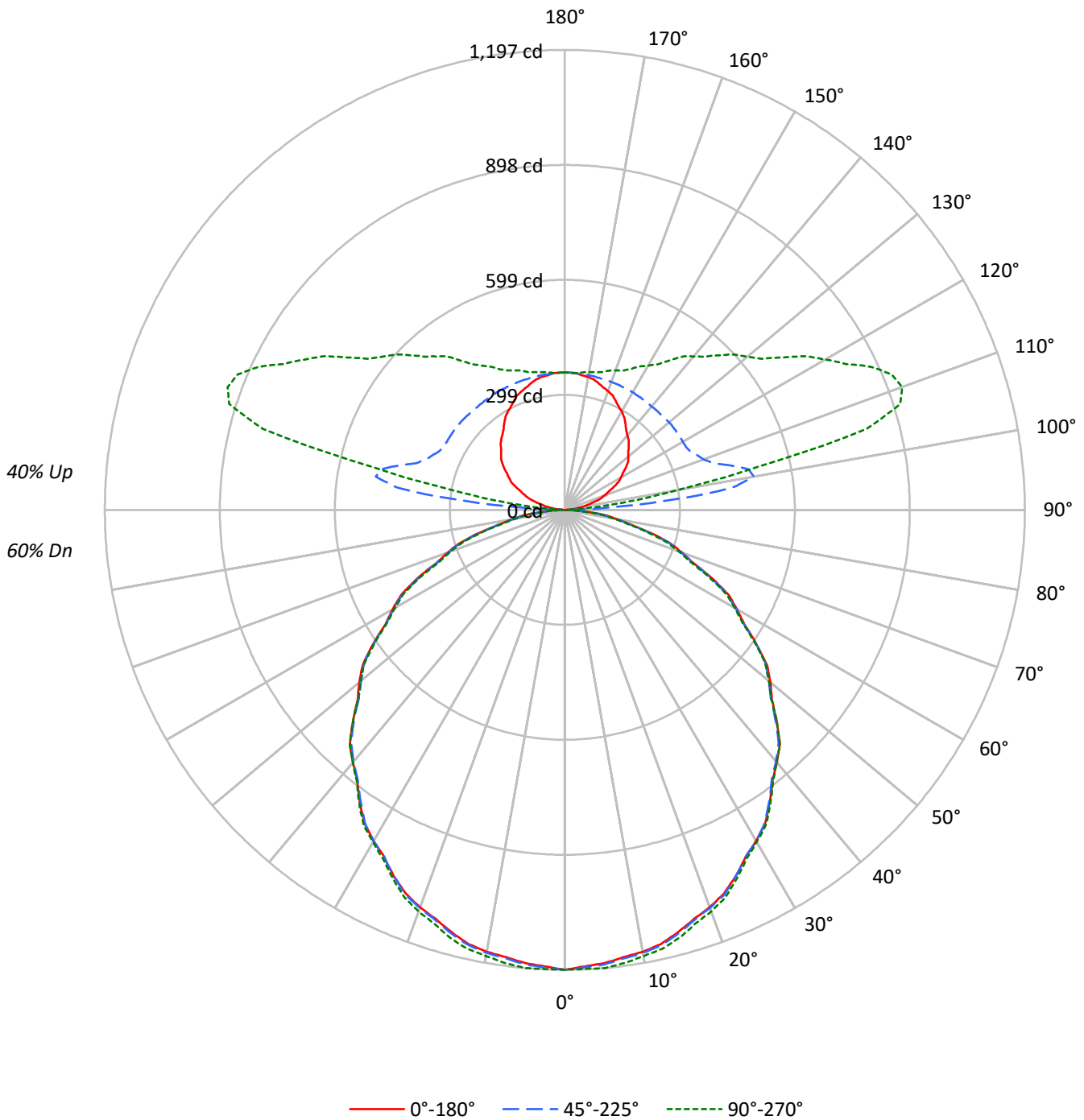
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5583.5 lumens
Efficiency: N/A
Efficacy: 134.5 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				
RC	80					70					50					30				
RW	70	50	30	10	70	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°	19328	19328	19328
5°	19191	19245	19402
10°	19146	19200	19335
15°	19029	19084	19275
20°	18916	18945	19112
25°	18743	18743	18857
30°	18550	18550	18610
35°	18325	18260	18388
40°	18082	18014	18082
45°	17801	17728	17801
50°	17535	17369	17412
55°	17126	17078	16988
60°	16695	16591	16485
65°	16202	16011	15828
70°	15243	15168	14861
75°	14348	14042	13637
80°	12738	12441	11985
85°	10263	9355	8762

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 22.5°
 Vertical Angle: 45°
 Luminance: 17911 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	113.2	2.0
10°-20°	323.3	5.8
20°-30°	486.5	8.7
30°-40°	582.1	10.4
40°-50°	600.6	10.8
50°-60°	541.8	9.7
60°-70°	413.5	7.4
70°-80°	237.7	4.3
80°-90°	62.5	1.1
90°-100°	142.5	2.6
100°-110°	452.1	8.1
110°-120°	443.3	7.9
120°-130°	360.7	6.5
130°-140°	294.1	5.3
140°-150°	229.3	4.1
150°-160°	165.2	3.0
160°-170°	100.9	1.8
170°-180°	34.1	0.6
0°-30°	923.0	16.5
0°-40°	1505.1	27.0
0°-60°	2647.5	47.4
0°-90°	3361.2	60.2
90°-120°	1037.9	18.6
90°-150°	1922.1	34.4
90°-180°	2222.0	39.8
0°-180°	5583.5	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	1147	1153	321
25°	1052	1063	1052	1054	1058	484
35°	930	936	926	930	933	581
45°	780	784	776	778	780	601
55°	608	612	607	604	604	544
65°	424	422	419	416	414	417
75°	230	228	225	220	219	243
85°	55	52	50	46	47	64
90°	0	1	3	3	3	3
95°	19	58	259	96	62	22
105°	79	111	446	849	814	83
115°	141	167	360	748	880	139
125°	195	218	354	586	691	173
135°	235	258	352	504	568	182
145°	275	296	352	435	474	172
155°	313	324	353	389	404	144
165°	341	344	354	368	371	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°	1197.1	1197.1	1197.1	1197.1	1197.1
2.5°	1189.3	1203.3	1191.9	1194.6	1195.9
5°	1184.1	1200.1	1187.4	1189.2	1197.1
7.5°	1174.3	1191.6	1177.6	1180.7	1189.7
10°	1167.8	1183.8	1171.1	1172.8	1179.3
12.5°	1157.3	1173.4	1160.6	1163.8	1170.1
15°	1138.4	1152.8	1141.7	1146.8	1153.1
17.5°	1116.6	1131.9	1119.6	1123.9	1129.3
20°	1100.9	1113.7	1102.6	1104.4	1112.3
22.5°	1081.3	1094.1	1084.3	1084.7	1091.5
25°	1052.1	1063.1	1052.1	1053.8	1058.5
27.5°	1018.4	1028.0	1018.4	1020.2	1024.2
30°	995.0	1004.5	995.0	996.5	998.2
32.5°	968.8	977.1	967.5	969.3	973.4
35°	929.7	936.1	926.4	929.7	932.9
37.5°	887.9	892.8	884.6	886.3	889.3
40°	857.9	862.7	854.7	856.3	857.9
42.5°	827.9	831.5	823.3	825.0	827.9
45°	779.6	784.4	776.4	778.0	779.6
47.5°	730.7	733.6	726.8	725.5	728.5
50°	698.1	699.6	691.5	691.6	693.2
52.5°	662.9	664.5	658.9	656.3	657.9
55°	608.4	611.6	606.7	603.5	603.5
57.5°	553.6	556.4	550.3	548.7	548.4
60°	517.0	518.6	513.8	512.1	510.5
62.5°	480.5	480.9	475.9	474.3	472.7
65°	424.1	422.5	419.1	415.9	414.3
67.5°	360.8	362.4	359.2	353.9	353.9
70°	322.9	324.5	321.3	314.8	314.8
72.5°	286.4	285.5	283.5	278.3	275.7
75°	230.0	228.4	225.1	220.1	218.6
77.5°	173.6	172.0	170.3	164.1	165.4
80°	137.0	135.5	133.8	128.9	128.9
82.5°	104.4	101.5	99.8	95.0	95.0
85°	55.4	52.2	50.5	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	79.9	26.6	18.7
95°	19.1	57.7	258.8	96.0	61.8
97.5°	35.6	74.7	438.5	274.0	168.1
100°	47.3	84.7	499.6	455.5	296.0
102.5°	59.9	95.5	488.9	669.0	512.1
105°	78.8	110.7	445.7	848.9	813.6
107.5°	97.7	127.2	404.4	867.7	915.1
110°	110.2	138.8	383.7	846.1	934.0



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	122.9	149.7	372.1	808.7	920.6
115°	140.7	167.1	360.1	748.0	880.1
117.5°	158.0	183.1	355.4	689.5	822.7
120°	168.8	193.0	354.5	653.4	782.2
122.5°	179.7	203.0	354.5	624.3	744.3
125°	194.7	217.8	354.5	586.5	690.9
127.5°	207.9	230.2	354.5	557.1	646.2
130°	216.1	239.1	354.5	539.8	620.0
132.5°	224.2	247.3	353.6	526.1	598.4
135°	235.2	258.4	352.2	504.5	568.4
137.5°	246.0	270.2	352.0	483.9	540.9
140°	253.3	277.5	351.1	469.3	521.0
142.5°	262.2	285.5	352.0	454.9	503.0
145°	274.6	295.6	352.2	435.3	473.7
147.5°	287.0	304.8	352.4	418.0	449.4
150°	296.0	310.2	353.3	407.9	433.3
152.5°	303.1	315.7	353.3	399.8	420.7
155°	312.8	323.8	353.3	388.6	404.0
157.5°	323.3	330.7	354.5	381.7	392.3
160°	328.6	335.2	354.5	377.2	386.0
162.5°	334.0	338.9	354.5	373.6	379.7
165°	341.0	344.3	354.5	368.0	371.4
167.5°	347.6	348.4	355.6	364.3	367.1
170°	351.1	351.1	355.6	362.4	363.5
172.5°	352.9	353.8	355.6	360.6	360.8
175°	356.7	355.7	356.7	359.0	357.8
177.5°	357.8	356.9	356.9	358.8	356.9
180°	357.8	357.8	357.8	357.8	357.8



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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	19.14	20.12	20.01	21.01	22.12	19.07	20.04	19.93	20.93	22.04
	3H	20.93	21.81	21.81	22.70	23.85	20.81	21.69	21.69	22.58	23.73
	4H	21.60	22.43	22.49	23.33	24.48	21.45	22.27	22.34	23.17	24.33
	6H	22.07	22.84	22.97	23.74	24.91	21.89	22.65	22.79	23.56	24.73
	8H	22.21	22.94	23.12	23.87	25.03	22.01	22.74	22.92	23.67	24.83
	12H	22.29	22.99	23.21	23.90	25.10	22.07	22.76	22.99	23.68	24.87
4H	2H	19.71	20.54	20.60	21.44	22.59	19.65	20.48	20.54	21.38	22.53
	3H	21.71	22.40	22.61	23.33	24.50	21.60	22.29	22.50	23.22	24.39
	4H	22.50	23.13	23.42	24.06	25.25	22.36	22.99	23.28	23.92	25.11
	6H	23.10	23.64	24.03	24.60	25.79	22.92	23.46	23.85	24.42	25.61
	8H	23.29	23.80	24.22	24.74	25.95	23.09	23.60	24.02	24.54	25.75
	12H	23.40	23.86	24.35	24.82	26.03	23.17	23.63	24.12	24.59	25.81
8H	4H	22.76	23.27	23.69	24.21	25.42	22.63	23.14	23.57	24.09	25.30
	6H	23.48	23.90	24.44	24.89	26.10	23.31	23.74	24.28	24.73	25.93
	8H	23.75	24.12	24.72	25.10	26.33	23.56	23.93	24.53	24.91	26.13
	12H	23.92	24.25	24.90	25.22	26.50	23.70	24.02	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	25.27
	6H	23.53	23.90	24.50	24.88	26.10	23.37	23.74	24.34	24.72	25.94
	8H	23.82	24.15	24.80	25.12	26.40	23.64	23.97	24.61	24.94	26.21