

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: P853660

Luminaire Tested: SQ2-F-025U-075D-835-UNV-STD-W-4

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P853660
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-9, G2-2308-131-13)
Test Lab: INNOVATION CENTER
Issue Date: 7/12/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ2-F-025U-075D-835-UNV-STD-W-4
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE
DOWNLIGHT 750 LUMENS PER FOOT
UPLIGHT 250 LUMENS PER FOOT
Light Source: -
Ballast/Driver: -

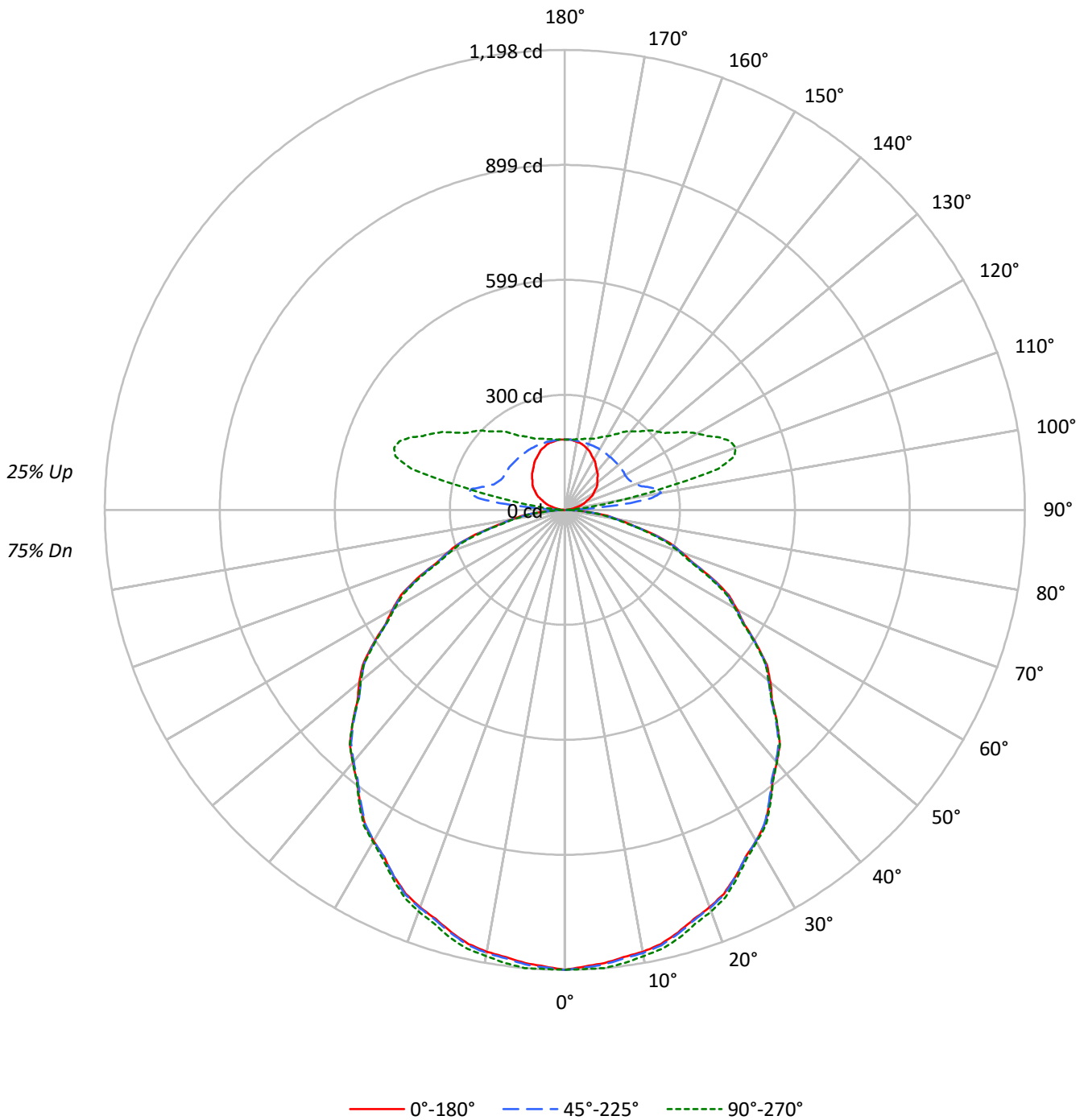
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4502.1 lumens
Efficiency: N/A
Efficacy: 132.0 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: Semi-Direct

Input Watts (W): 34.1
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	113	113	113	113	107	107	107	107	97	97	97	88	88	88	79	79	79	75				75
1	103	99	94	91	98	94	90	87	85	82	80	77	75	73	69	68	66	62				62
2	94	86	79	74	89	82	76	71	74	70	66	67	64	60	61	58	55	52				52
3	85	75	67	61	81	72	65	59	65	60	55	59	55	51	54	50	47	44				44
4	78	67	58	52	74	64	56	50	58	52	47	53	48	43	48	44	40	37				37
5	72	59	51	44	68	57	49	43	52	45	40	47	42	38	43	39	35	32				32
6	66	53	45	39	63	51	43	37	47	40	35	43	37	33	39	34	31	28				28
7	61	48	40	34	58	46	38	33	42	36	31	39	33	29	36	31	27	25				25
8	57	44	36	30	54	42	35	29	39	32	28	36	30	26	33	28	24	22				22
9	53	40	32	27	50	39	31	26	36	29	25	33	27	23	30	25	22	20				20
10	50	37	29	24	47	36	28	24	33	27	22	30	25	21	28	23	20	18				18

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	2.5
10°-20°	323.6	7.2
20°-30°	486.9	10.8
30°-40°	582.6	12.9
40°-50°	601.1	13.4
50°-60°	542.3	12.0
60°-70°	413.8	9.2
70°-80°	237.9	5.3
80°-90°	62.5	1.4
90°-100°	74.2	1.6
100°-110°	230.8	5.1
110°-120°	225.8	5.0
120°-130°	184.3	4.1
130°-140°	150.8	3.3
140°-150°	117.7	2.6
150°-160°	84.9	1.9
160°-170°	51.9	1.2
170°-180°	17.5	0.4
0°-30°	923.8	20.5
0°-40°	1506.5	33.5
0°-60°	2649.9	58.9
0°-90°	3364.2	74.7
90°-120°	530.8	11.8
90°-150°	983.6	21.8
90°-180°	1138.0	25.3
0°-180°	4502.1	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°	10	30	136	50	33	12
105°	40	57	227	434	414	43
115°	72	85	184	381	445	71
125°	100	111	182	299	351	89
135°	120	134	181	258	290	93
145°	141	152	181	223	243	88
155°	161	166	182	200	207	74
165°	176	178	183	189	191	50
175°	183	183	183	184	183	17
180°	183	183	183	183	183	



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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°	3.6	12.6	43.0	14.1	11.4
95°	10.1	29.9	136.1	50.2	32.6
97.5°	18.4	38.9	225.4	140.3	88.4
100°	24.8	43.5	254.2	237.8	158.5
102.5°	31.0	48.9	248.9	339.6	266.6
105°	40.5	57.0	227.2	433.8	414.0
107.5°	49.9	65.3	206.5	441.0	462.7
110°	56.2	71.6	195.7	430.6	473.5



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	62.6	77.1	190.3	412.0	466.4
115°	72.0	85.2	184.5	380.6	445.4
117.5°	81.3	93.4	182.0	350.5	416.9
120°	86.6	98.7	181.1	333.3	397.1
122.5°	92.0	104.1	182.0	318.8	377.3
125°	100.2	111.1	182.2	299.2	350.9
127.5°	106.6	117.8	182.2	284.7	328.6
130°	110.2	122.3	182.2	276.5	316.1
132.5°	114.8	126.9	181.3	269.2	306.1
135°	120.4	133.5	181.1	258.4	290.2
137.5°	126.9	139.0	181.1	247.5	276.5
140°	130.5	142.6	181.1	240.1	266.6
142.5°	135.0	146.2	181.1	232.9	256.7
145°	140.6	151.6	181.1	223.2	243.0
147.5°	147.3	156.8	182.2	214.1	229.7
150°	151.9	159.6	182.2	209.5	221.6
152.5°	155.5	162.3	182.2	204.9	215.2
155°	160.8	166.4	182.2	200.4	207.0
157.5°	166.2	170.4	182.2	196.2	200.4
160°	169.9	173.1	182.2	193.5	196.8
162.5°	172.6	175.0	182.2	191.7	194.2
165°	176.5	177.7	183.3	189.0	191.3
167.5°	179.0	179.3	182.2	187.4	188.5
170°	179.9	181.1	182.2	185.6	186.7
172.5°	181.7	182.0	183.1	184.7	184.9
175°	183.3	183.3	183.3	184.5	183.3
177.5°	183.3	183.3	183.3	183.3	183.3
180°	183.3	183.3	183.3	183.3	183.3



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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	20.27	21.43	20.98	22.16	23.03	20.20	21.35	20.91	22.08	22.95
	3H	22.08	23.12	22.80	23.86	24.76	21.96	23.00	22.68	23.74	24.64
	4H	22.75	23.73	23.49	24.48	25.39	22.60	23.58	23.34	24.33	25.24
	6H	23.23	24.14	23.99	24.90	25.83	23.05	23.96	23.80	24.72	25.64
	8H	23.38	24.25	24.14	25.03	25.95	23.18	24.04	23.94	24.82	25.75
	12H	23.46	24.29	24.23	25.06	26.02	23.24	24.07	24.01	24.84	25.80
4H	2H	20.86	21.84	21.60	22.59	23.51	20.80	21.78	21.54	22.53	23.44
	3H	22.87	23.70	23.63	24.48	25.41	22.77	23.59	23.52	24.38	25.30
	4H	23.68	24.42	24.45	25.21	26.17	23.53	24.28	24.31	25.07	26.03
	6H	24.28	24.93	25.07	25.74	26.71	24.10	24.75	24.89	25.56	26.53
	8H	24.48	25.09	25.27	25.89	26.87	24.28	24.88	25.07	25.69	26.67
	12H	24.59	25.14	25.41	25.97	26.95	24.37	24.91	25.18	25.74	26.73
8H	4H	23.95	24.55	24.74	25.36	26.34	23.82	24.43	24.62	25.24	26.21
	6H	24.68	25.18	25.50	26.03	27.01	24.51	25.02	25.34	25.87	26.84
	8H	24.95	25.40	25.78	26.24	27.24	24.76	25.20	25.59	26.05	27.05
	12H	25.13	25.53	25.97	26.36	27.41	24.90	25.30	25.74	26.14	27.19
12H	4H	23.96	24.50	24.77	25.33	26.31	23.83	24.38	24.65	25.21	26.19
	6H	24.72	25.17	25.56	26.02	27.01	24.57	25.01	25.40	25.86	26.86
	8H	25.03	25.43	25.87	26.27	27.32	24.85	25.24	25.68	26.08	27.13