

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-830-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-830-UNV-STD-W-4
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE
DOWNLIGHT 750 LUMENS PER FOOT
UPLIGHT 250 LUMENS PER FOOT
Light Source: -
Ballast/Driver: -

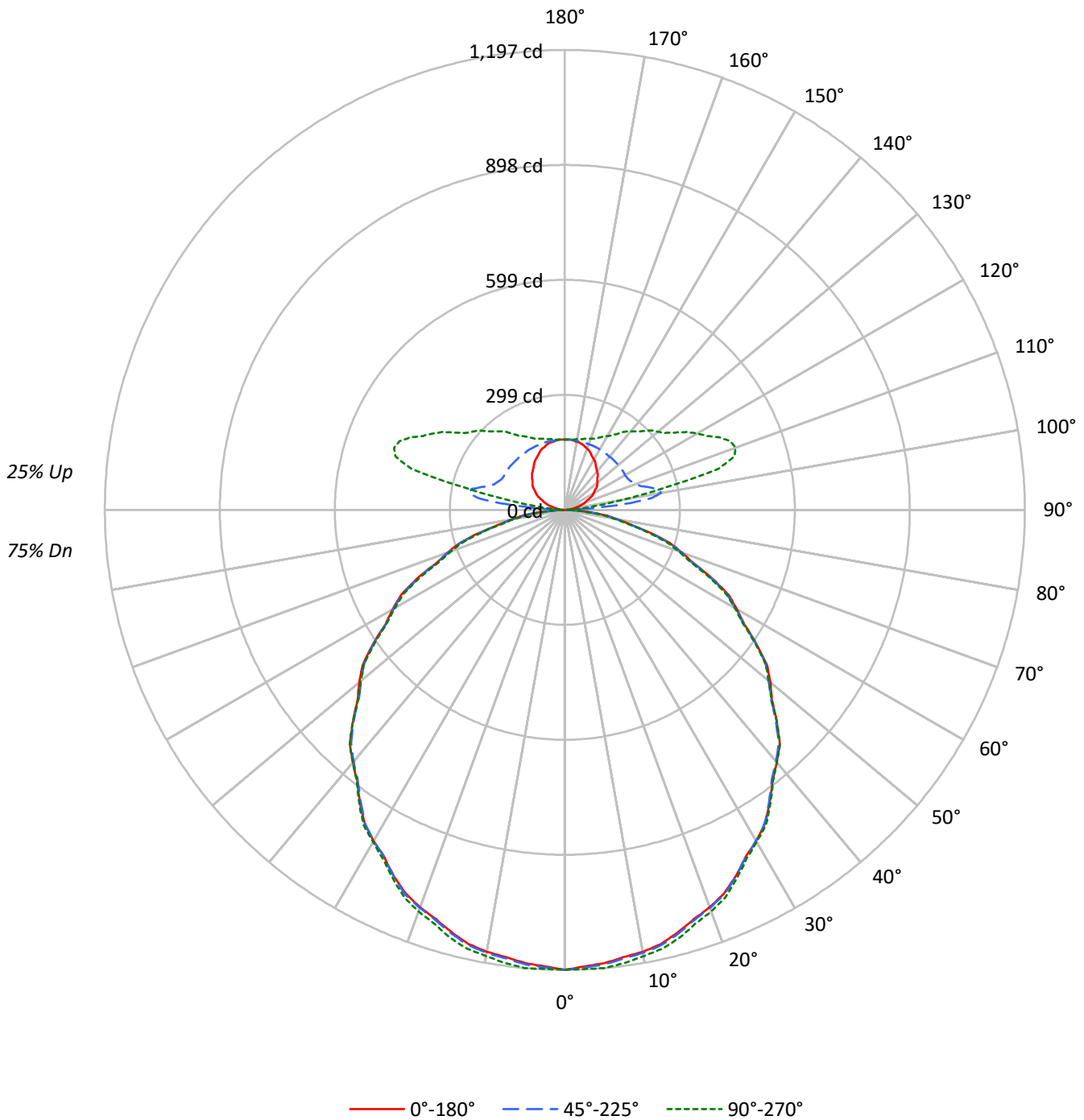
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4498.0 lumens
Efficiency: N/A
Efficacy: 131.9 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°	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	2.5
10°-20°	323.3	7.2
20°-30°	486.5	10.8
30°-40°	582.1	12.9
40°-50°	600.6	13.4
50°-60°	541.8	12.0
60°-70°	413.5	9.2
70°-80°	237.7	5.3
80°-90°	62.5	1.4
90°-100°	74.1	1.6
100°-110°	230.6	5.1
110°-120°	225.6	5.0
120°-130°	184.1	4.1
130°-140°	150.6	3.3
140°-150°	117.6	2.6
150°-160°	84.8	1.9
160°-170°	51.9	1.2
170°-180°	17.5	0.4
0°-30°	923.0	20.5
0°-40°	1505.1	33.5
0°-60°	2647.5	58.9
0°-90°	3361.2	74.7
90°-120°	530.3	11.8
90°-150°	982.7	21.8
90°-180°	1137.0	25.3
0°-180°	4498.0	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°	10	30	136	50	33	12
105°	40	57	227	433	414	43
115°	72	85	184	380	445	71
125°	100	111	182	299	351	89
135°	120	133	181	258	290	93
145°	140	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°	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°	3.6	12.6	43.0	14.1	11.4
95°	10.1	29.8	136.0	50.2	32.6
97.5°	18.4	38.9	225.2	140.2	88.3
100°	24.8	43.4	253.9	237.5	158.4
102.5°	31.0	48.8	248.6	339.3	266.4
105°	40.5	57.0	227.0	433.4	413.6
107.5°	49.9	65.2	206.3	440.6	462.3
110°	56.2	71.6	195.5	430.2	473.1



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	62.5	77.0	190.2	411.7	465.9
115°	71.9	85.1	184.3	380.2	445.0
117.5°	81.2	93.3	181.8	350.2	416.5
120°	86.5	98.6	180.9	333.0	396.7
122.5°	91.9	104.0	181.8	318.5	377.0
125°	100.1	111.0	182.0	298.9	350.6
127.5°	106.5	117.7	182.0	284.5	328.3
130°	110.1	122.2	182.0	276.2	315.8
132.5°	114.6	126.7	181.1	269.0	305.8
135°	120.3	133.4	180.9	258.1	289.9
137.5°	126.7	138.8	180.9	247.3	276.2
140°	130.4	142.5	180.9	239.9	266.4
142.5°	134.9	146.1	180.9	232.7	256.4
145°	140.4	151.5	180.9	223.0	242.7
147.5°	147.2	156.7	182.0	213.9	229.5
150°	151.7	159.4	182.0	209.3	221.4
152.5°	155.4	162.1	182.0	204.8	215.0
155°	160.7	166.2	182.0	200.2	206.8
157.5°	166.1	170.3	182.0	196.1	200.2
160°	169.7	173.0	182.0	193.3	196.6
162.5°	172.4	174.8	182.0	191.5	194.0
165°	176.4	177.5	183.2	188.8	191.1
167.5°	178.9	179.1	182.0	187.2	188.4
170°	179.8	180.9	182.0	185.4	186.6
172.5°	181.6	181.8	182.9	184.5	184.7
175°	183.2	183.2	183.2	184.3	183.2
177.5°	183.2	183.2	183.2	183.2	183.2
180°	183.2	183.2	183.2	183.2	183.2



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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	20.27	21.43	20.98	22.16	23.03	20.19	21.35	20.90	22.08	22.95
	3H	22.07	23.12	22.80	23.86	24.75	21.95	23.00	22.68	23.74	24.64
	4H	22.75	23.73	23.49	24.48	25.39	22.59	23.58	23.33	24.33	25.24
	6H	23.23	24.14	23.98	24.90	25.82	23.05	23.95	23.80	24.71	25.64
	8H	23.38	24.24	24.14	25.02	25.95	23.17	24.04	23.94	24.82	25.75
	12H	23.46	24.29	24.23	25.06	26.02	23.24	24.06	24.01	24.84	25.79
4H	2H	20.86	21.84	21.60	22.59	23.50	20.80	21.78	21.54	22.53	23.44
	3H	22.87	23.69	23.63	24.48	25.41	22.76	23.59	23.52	24.37	25.30
	4H	23.67	24.42	24.45	25.21	26.17	23.53	24.28	24.30	25.07	26.02
	6H	24.28	24.93	25.07	25.74	26.70	24.10	24.75	24.89	25.56	26.52
	8H	24.47	25.08	25.27	25.89	26.87	24.27	24.88	25.07	25.69	26.66
	12H	24.59	25.14	25.41	25.97	26.95	24.36	24.91	25.18	25.74	26.72
8H	4H	23.94	24.55	24.74	25.36	26.34	23.82	24.43	24.61	25.23	26.21
	6H	24.67	25.18	25.50	26.03	27.01	24.51	25.01	25.33	25.86	26.84
	8H	24.95	25.39	25.78	26.24	27.23	24.75	25.20	25.59	26.05	27.04
	12H	25.13	25.52	25.97	26.36	27.41	24.90	25.30	25.74	26.13	27.18
12H	4H	23.95	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	24.56	25.01	25.40	25.86	26.85
	8H	25.03	25.42	25.87	26.26	27.31	24.84	25.24	25.68	26.08	27.13