

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: P853684

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

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P853684
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-11, G2-2308-131-13)
Test Lab: INNOVATION CENTER
Issue Date: 7/12/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ2-F-075U-075D-830-UNV-STD-W-4
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE
DOWNLIGHT 750 LUMENS PER FOOT
UPLIGHT 750 LUMENS PER FOOT
Light Source: -
Ballast/Driver: -

Summary

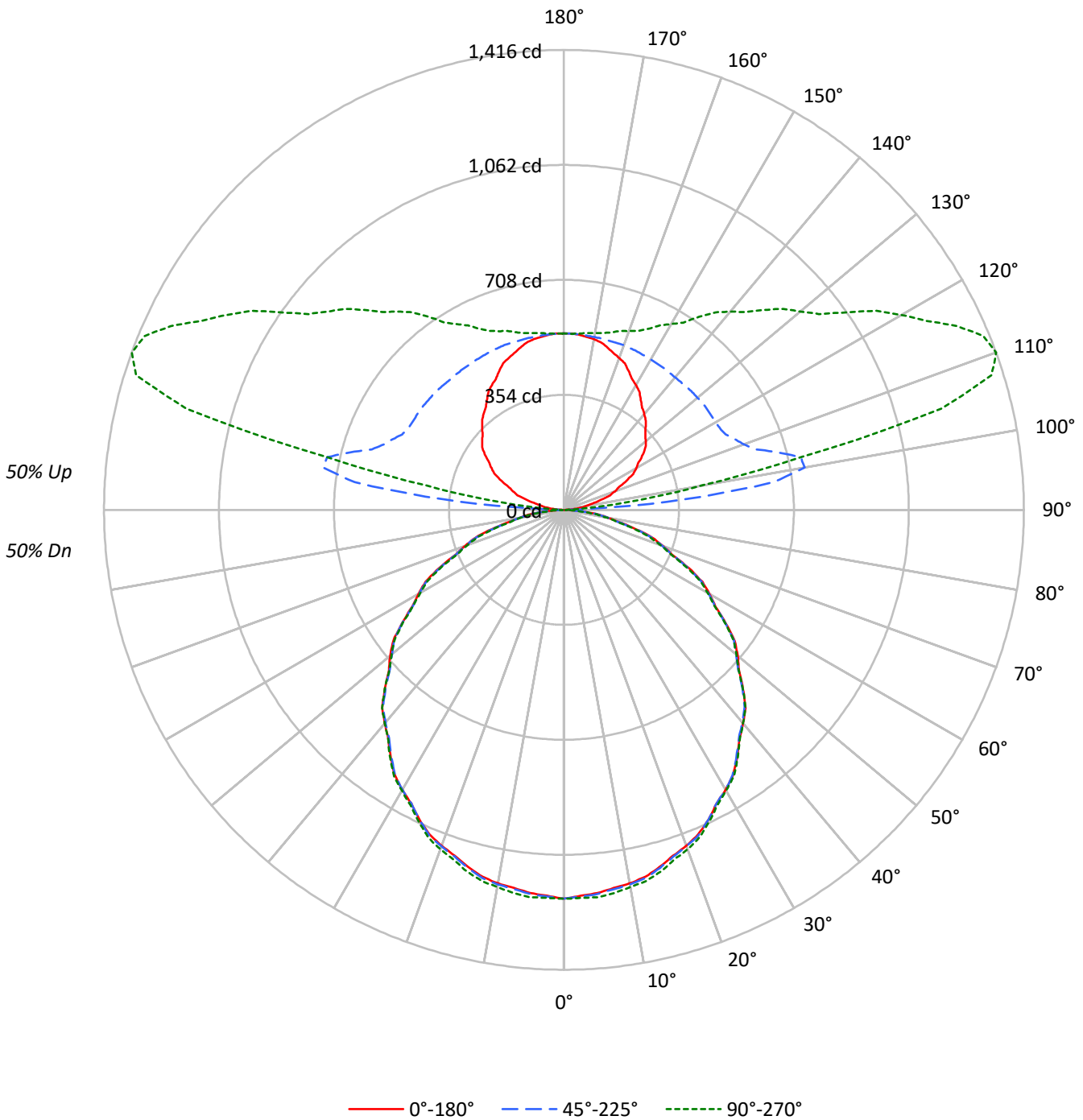
Lumens per Lamp: N/A
Luminaire Lumens: 6726.7 lumens
Efficiency: N/A
Efficacy: 134.5 lumens/watt
Spacing Criteria (0/90/45): 1.24 / 1.25 / 1.36
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: General Diffuse

Input Watts (W): 50
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
RCR																				
0	107	107	107	107	99	99	99	99	83	83	83	69	69	69	56	56	56	50		
1	98	93	89	86	90	86	83	80	73	70	68	61	59	57	49	48	47	42		
2	89	81	75	70	82	75	70	65	64	60	56	53	50	48	43	41	39	35		
3	81	71	64	58	74	66	59	54	56	51	47	47	43	40	38	36	33	29		
4	74	63	55	49	68	58	51	46	50	44	40	42	37	34	34	31	29	25		
5	68	56	48	42	62	52	45	39	44	39	34	37	33	30	31	27	25	22		
6	62	50	42	36	57	47	39	34	40	34	30	34	29	26	28	24	22	19		
7	58	45	37	32	53	42	35	30	36	30	26	30	26	23	25	22	19	17		
8	53	41	33	28	49	38	31	26	33	27	23	28	23	20	23	20	17	15		
9	50	37	30	25	46	35	28	23	30	25	21	26	21	18	21	18	16	13		
10	46	34	27	22	43	32	25	21	28	22	19	24	19	16	20	16	14	12		

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	1.7
10°-20°	323.3	4.8
20°-30°	486.5	7.2
30°-40°	582.1	8.7
40°-50°	600.6	8.9
50°-60°	541.8	8.1
60°-70°	413.5	6.1
70°-80°	237.7	3.5
80°-90°	62.5	0.9
90°-100°	205.6	3.1
100°-110°	681.5	10.1
110°-120°	676.3	10.1
120°-130°	550.9	8.2
130°-140°	447.7	6.7
140°-150°	347.7	5.2
150°-160°	250.5	3.7
160°-170°	153.4	2.3
170°-180°	51.8	0.8
0°-30°	923.0	13.7
0°-40°	1505.1	22.4
0°-60°	2647.5	39.4
0°-90°	3361.2	50.0
90°-120°	1563.3	23.2
90°-150°	2909.7	43.3
90°-180°	3365.0	50.0
0°-180°	6726.7	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	4	4	3
95°	29	86	372	133	89	33
105°	119	170	682	1287	1203	126
115°	213	254	549	1143	1337	210
125°	297	330	539	898	1059	264
135°	356	392	535	771	870	275
145°	413	444	533	663	726	259
155°	472	488	537	592	614	217
165°	518	523	539	561	566	146
175°	541	541	542	546	545	51
180°	544	544	544	544	544	



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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	11.3	11.3
90°	0.0	1.1	3.4	4.5	4.5
92.5°	9.0	34.7	102.4	33.2	27.9
95°	29.3	86.5	372.5	133.0	88.9
97.5°	53.8	113.6	650.2	379.2	239.7
100°	70.9	128.1	752.9	646.6	428.7
102.5°	89.8	145.3	746.6	988.2	746.6
105°	119.3	169.9	682.0	1286.7	1203.0
107.5°	149.5	194.6	620.0	1317.0	1380.6
110°	166.5	211.7	588.6	1286.9	1415.7



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	184.5	228.8	569.6	1233.8	1397.7
115°	212.7	254.5	549.2	1143.3	1336.9
117.5°	240.6	277.8	541.7	1056.8	1260.0
120°	257.7	294.0	539.1	1002.7	1199.6
122.5°	273.1	308.4	539.1	958.2	1140.3
125°	297.1	330.1	539.1	898.3	1059.0
127.5°	316.9	349.3	537.7	853.0	990.3
130°	328.6	362.7	536.8	826.5	949.7
132.5°	339.4	374.4	535.9	804.7	915.6
135°	355.6	391.9	534.6	770.9	869.9
137.5°	373.1	408.2	533.2	738.2	825.6
140°	384.9	419.0	532.3	716.4	796.8
142.5°	395.7	428.9	533.2	694.7	766.1
145°	413.0	443.8	533.4	663.1	725.9
147.5°	431.7	457.5	533.7	636.4	683.1
150°	443.4	466.5	534.6	620.9	660.6
152.5°	454.2	476.5	535.5	608.2	639.8
155°	471.5	488.0	536.8	592.5	614.4
157.5°	488.4	501.2	538.2	581.3	596.9
160°	497.4	508.5	539.1	573.1	585.2
162.5°	506.4	514.8	539.1	567.6	577.1
165°	517.6	523.1	539.1	560.6	566.0
167.5°	528.0	530.8	540.2	554.2	557.1
170°	533.4	534.6	540.2	551.4	552.5
172.5°	537.1	538.1	541.0	548.7	548.9
175°	541.2	541.2	542.4	545.8	544.6
177.5°	543.5	543.5	542.6	544.4	542.6
180°	543.5	543.5	543.5	543.5	543.5

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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	18.26	19.13	19.21	20.10	21.37	18.18	19.05	19.13	20.02	21.29
	3H	20.04	20.82	21.00	21.80	23.09	19.92	20.70	20.88	21.68	22.97
	4H	20.70	21.44	21.68	22.42	23.72	20.54	21.28	21.52	22.27	23.57
	6H	21.17	21.85	22.16	22.84	24.15	20.98	21.66	21.97	22.65	23.97
	8H	21.30	21.95	22.30	22.96	24.27	21.10	21.75	22.10	22.76	24.07
	12H	21.38	22.00	22.38	23.00	24.33	21.16	21.77	22.16	22.78	24.11
4H	2H	18.81	19.55	19.79	20.53	21.84	18.75	19.49	19.73	20.47	21.77
	3H	20.80	21.41	21.79	22.43	23.74	20.69	21.31	21.68	22.32	23.64
	4H	21.59	22.15	22.59	23.16	24.50	21.44	22.01	22.45	23.02	24.36
	6H	22.18	22.66	23.19	23.70	25.03	22.00	22.48	23.01	23.52	24.85
	8H	22.36	22.82	23.38	23.84	25.20	22.16	22.62	23.18	23.64	24.99
	12H	22.47	22.88	23.50	23.92	25.27	22.24	22.65	23.28	23.69	25.05
8H	4H	21.83	22.29	22.85	23.31	24.67	21.71	22.16	22.72	23.19	24.54
	6H	22.55	22.93	23.59	24.00	25.34	22.39	22.76	23.43	23.83	25.18
	8H	22.82	23.15	23.87	24.20	25.57	22.63	22.96	23.68	24.01	25.38
	12H	22.99	23.28	24.04	24.33	25.74	22.76	23.05	23.81	24.10	25.51
12H	4H	21.83	22.24	22.86	23.28	24.64	21.71	22.12	22.74	23.16	24.52
	6H	22.60	22.93	23.65	23.98	25.35	22.44	22.77	23.49	23.82	25.19
	8H	22.89	23.18	23.94	24.23	25.64	22.70	23.00	23.76	24.04	25.45