

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: P855472

Luminaire Tested: SQ2-F-125U-075D-840-UNV-STD-W-4

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P855472
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-13, G2-2308-131-13)
Test Lab: INNOVATION CENTER
Issue Date: 7/12/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ2-F-125U-075D-840-UNV-STD-W-4
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE
DOWNLIGHT 750 LUMENS PER FOOT
UPLIGHT 1250 LUMENS PER FOOT
Light Source: -
Ballast/Driver: -

Summary

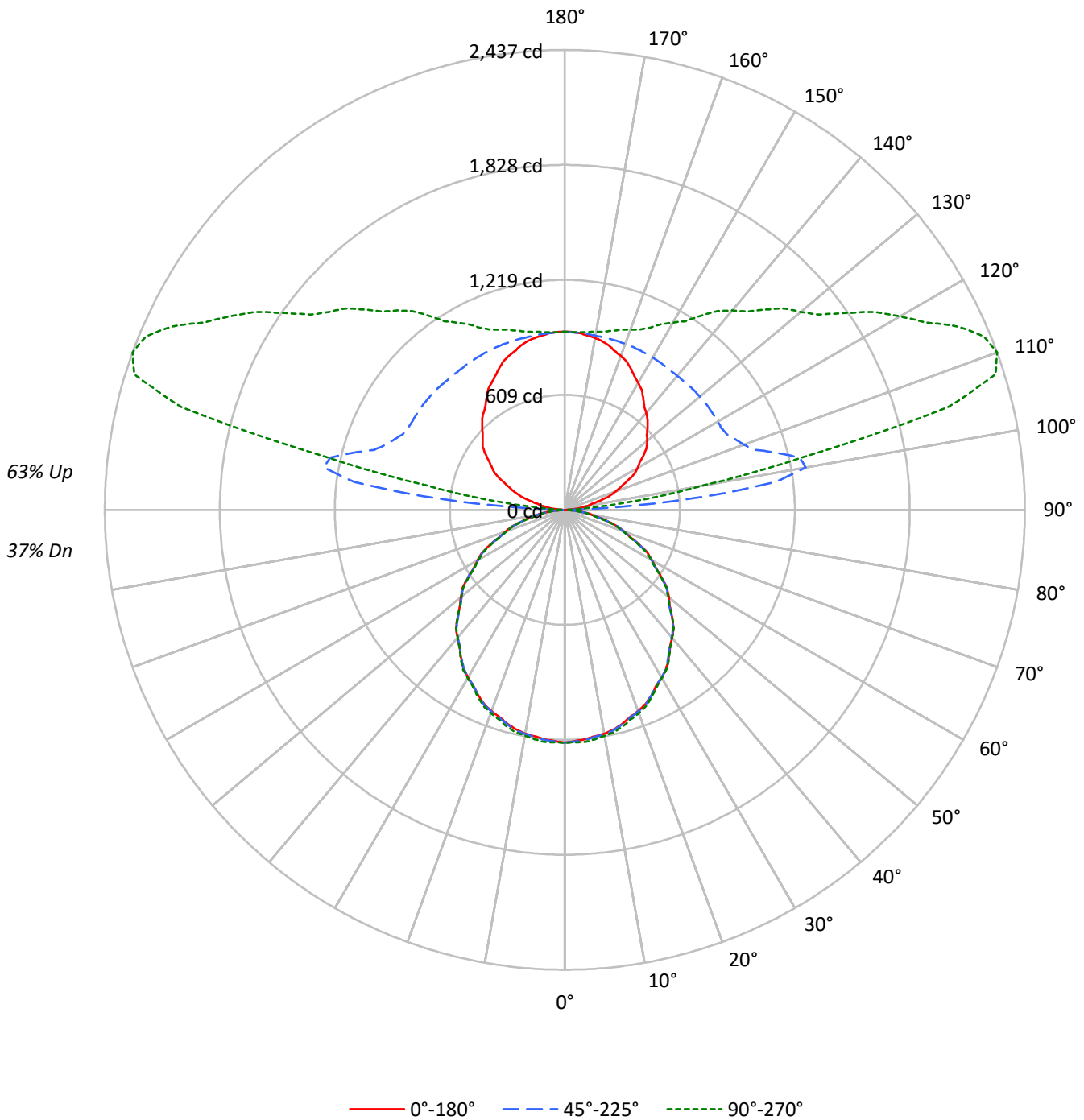
Lumens per Lamp: N/A
Luminaire Lumens: 9283.5 lumens
Efficiency: N/A
Efficacy: 131.5 lumens/watt
Spacing Criteria (0/90/45): 1.24 / 1.25 / 1.36
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: Semi-Indirect

Input Watts (W): 70.6
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	0
RCR																		
0	104	104	104	104	94	94	94	94	76	76	76	60	60	60	44	44	44	37
1	95	91	87	83	86	82	79	76	67	64	62	52	51	49	39	38	37	31
2	86	79	73	68	78	72	67	62	58	55	51	46	43	41	34	33	31	26
3	79	69	62	56	71	63	57	52	51	47	43	40	37	35	30	28	26	22
4	72	61	53	47	65	56	49	44	45	40	36	36	32	29	27	25	23	19
5	66	54	46	40	59	50	43	37	40	35	31	32	28	25	24	22	20	16
6	60	49	41	35	55	44	37	32	36	31	27	29	25	22	22	19	17	14
7	56	44	36	30	50	40	33	28	33	28	24	26	22	19	20	17	15	12
8	52	40	32	27	47	36	29	25	30	25	21	24	20	17	18	16	14	11
9	48	36	29	24	43	33	26	22	27	22	19	22	18	15	17	14	12	10
10	45	33	26	21	41	30	24	20	25	20	17	20	17	14	16	13	11	9

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	19922	19922	19922
5°	19781	19836	19998
10°	19735	19790	19928
15°	19614	19671	19868
20°	19498	19527	19699
25°	19319	19319	19436
30°	19121	19121	19182
35°	18889	18821	18954
40°	18638	18567	18638
45°	18347	18274	18347
50°	18073	17904	17947
55°	17652	17605	17512
60°	17208	17102	16992
65°	16699	16504	16313
70°	15711	15635	15314
75°	14785	14473	14055
80°	13129	12822	12357
85°	10578	9652	9022

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 22.5°
 Vertical Angle: 45°
 Luminance: 18463 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	116.6	1.3
10°-20°	333.3	3.6
20°-30°	501.4	5.4
30°-40°	600.0	6.5
40°-50°	619.0	6.7
50°-60°	558.5	6.0
60°-70°	426.2	4.6
70°-80°	245.0	2.6
80°-90°	65.0	0.7
90°-100°	360.7	3.9
100°-110°	1174.5	12.7
110°-120°	1161.7	12.5
120°-130°	949.4	10.2
130°-140°	775.9	8.4
140°-150°	604.4	6.5
150°-160°	435.6	4.7
160°-170°	266.3	2.9
170°-180°	89.8	1.0
0°-30°	951.4	10.2
0°-40°	1551.4	16.7
0°-60°	2728.9	29.4
0°-90°	3465.1	37.3
90°-120°	2696.9	29.1
90°-150°	5026.6	54.1
90°-180°	5818.0	62.7
0°-180°	9283.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1234	1234	1234	1234	1234	
5°	1220	1237	1224	1226	1234	116
15°	1173	1188	1177	1182	1189	331
25°	1084	1096	1084	1086	1091	499
35°	958	965	955	958	962	599
45°	804	809	800	802	804	620
55°	627	630	625	622	622	561
65°	437	436	432	429	427	430
75°	237	235	232	227	225	250
85°	57	54	52	47	49	66
90°	0	3	8	7	7	4
95°	49	148	661	236	145	57
105°	200	288	1163	2222	2104	213
115°	369	440	948	1953	2298	365
125°	513	572	935	1542	1818	456
135°	619	684	930	1331	1501	479
145°	724	777	928	1146	1255	453
155°	826	853	934	1026	1065	380
165°	901	909	936	971	982	254
175°	940	940	940	946	944	89
180°	943	943	943	943	943	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1233.9	1233.9	1233.9	1233.9	1233.9
2.5°	1225.9	1240.3	1228.6	1231.4	1232.6
5°	1220.5	1237.0	1223.9	1225.8	1233.9
7.5°	1210.4	1228.2	1213.8	1217.0	1226.2
10°	1203.7	1220.2	1207.1	1208.9	1215.5
12.5°	1192.9	1209.5	1196.3	1199.5	1206.1
15°	1173.4	1188.2	1176.8	1182.1	1188.6
17.5°	1151.0	1166.7	1154.0	1158.4	1164.0
20°	1134.8	1147.9	1136.5	1138.4	1146.5
22.5°	1114.6	1127.8	1117.6	1118.1	1125.1
25°	1084.4	1095.8	1084.4	1086.2	1091.0
27.5°	1049.7	1059.6	1049.7	1051.5	1055.7
30°	1025.6	1035.3	1025.6	1027.2	1028.9
32.5°	998.6	1007.1	997.2	999.1	1003.3
35°	958.3	964.8	954.9	958.3	961.6
37.5°	915.2	920.2	911.8	913.6	916.6
40°	884.3	889.2	880.9	882.7	884.3
42.5°	853.3	857.0	848.6	850.4	853.3
45°	803.5	808.6	800.3	801.9	803.5
47.5°	753.2	756.1	749.1	747.8	750.9
50°	719.5	721.2	712.8	712.9	714.5
52.5°	683.3	684.9	679.2	676.5	678.1
55°	627.1	630.4	625.4	622.1	622.1
57.5°	570.6	573.5	567.2	565.6	565.2
60°	532.9	534.6	529.6	527.8	526.2
62.5°	495.3	495.6	490.5	488.9	487.3
65°	437.1	435.5	432.0	428.6	427.0
67.5°	371.9	373.5	370.2	364.8	364.8
70°	332.8	334.5	331.2	324.4	324.4
72.5°	295.2	294.3	292.2	286.8	284.1
75°	237.0	235.4	232.0	226.9	225.3
77.5°	178.9	177.3	175.5	169.1	170.5
80°	141.2	139.6	137.9	132.9	132.9
82.5°	107.6	104.7	102.9	97.9	97.9
85°	57.1	53.8	52.1	47.1	48.7
87.5°	16.1	15.5	15.0	12.1	12.1
90°	0.0	3.4	8.2	7.0	7.0
92.5°	16.7	60.0	191.8	63.3	48.7
95°	48.7	148.5	661.1	235.8	145.0
97.5°	91.6	193.2	1122.2	683.4	417.1
100°	119.5	219.3	1295.7	1155.4	749.4
102.5°	151.0	247.2	1274.4	1709.3	1299.7
105°	199.5	288.0	1163.4	2222.1	2104.1
107.5°	252.0	335.2	1058.1	2266.6	2391.6
110°	290.0	365.9	1008.0	2211.3	2437.1



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	321.5	396.6	976.5	2111.7	2402.7
115°	368.8	440.3	947.7	1953.1	2297.8
117.5°	417.6	482.0	936.5	1807.8	2151.0
120°	445.4	508.9	933.7	1718.5	2050.8
122.5°	472.3	534.9	934.7	1641.0	1950.5
125°	512.7	571.6	934.9	1542.1	1817.7
127.5°	547.3	607.6	934.7	1467.9	1697.8
130°	569.5	630.8	933.7	1425.6	1630.9
132.5°	589.0	653.0	932.8	1386.4	1578.9
135°	619.4	684.1	930.3	1330.9	1501.0
137.5°	649.1	714.2	927.8	1274.5	1425.6
140°	670.5	732.8	926.8	1236.3	1379.1
142.5°	690.8	750.5	926.8	1199.8	1327.3
145°	723.8	777.1	928.0	1146.2	1255.0
147.5°	755.9	802.1	929.6	1100.6	1184.7
150°	777.2	818.0	931.4	1073.5	1144.9
152.5°	798.5	832.1	932.3	1052.7	1109.6
155°	825.9	853.1	933.7	1026.3	1064.8
157.5°	851.9	871.4	935.1	1006.8	1033.7
160°	867.6	883.5	936.1	994.6	1016.1
162.5°	881.5	893.9	936.1	984.3	1000.4
165°	901.3	909.2	936.1	971.1	982.4
167.5°	915.2	920.2	936.3	961.2	967.2
170°	924.5	926.7	937.2	954.7	956.9
172.5°	931.0	932.3	939.1	951.0	950.5
175°	939.5	939.5	939.5	946.4	944.2
177.5°	943.0	942.1	941.2	945.7	942.1
180°	943.0	943.0	943.0	943.0	943.0

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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	17.07	17.83	18.13	18.90	20.34	16.99	17.76	18.05	18.82	20.26
	3H	18.84	19.53	19.91	20.60	22.06	18.72	19.41	19.79	20.48	21.94
	4H	19.50	20.15	20.57	21.22	22.68	19.34	19.99	20.42	21.07	22.53
	6H	19.96	20.56	21.05	21.63	23.11	19.78	20.37	20.86	21.45	22.93
	8H	20.10	20.67	21.19	21.76	23.23	19.89	20.46	20.98	21.56	23.03
	12H	20.17	20.71	21.26	21.79	23.29	19.94	20.49	21.04	21.57	23.07
4H	2H	17.61	18.26	18.69	19.33	20.80	17.55	18.20	18.63	19.27	20.73
	3H	19.59	20.13	20.68	21.23	22.71	19.48	20.02	20.57	21.12	22.60
	4H	20.37	20.87	21.47	21.96	23.46	20.23	20.73	21.33	21.82	23.32
	6H	20.96	21.38	22.06	22.50	23.99	20.78	21.20	21.88	22.32	23.81
	8H	21.14	21.54	22.25	22.65	24.15	20.94	21.34	22.04	22.44	23.95
	12H	21.24	21.60	22.36	22.72	24.23	21.01	21.37	22.13	22.49	24.01
8H	4H	20.61	21.01	21.72	22.12	23.62	20.48	20.88	21.59	21.99	23.50
	6H	21.32	21.66	22.45	22.80	24.31	21.16	21.49	22.29	22.64	24.14
	8H	21.59	21.88	22.72	23.01	24.53	21.40	21.69	22.53	22.82	24.34
	12H	21.75	22.01	22.89	23.13	24.69	21.53	21.78	22.66	22.91	24.47
12H	4H	20.60	20.96	21.72	22.08	23.59	20.48	20.84	21.60	21.96	23.47
	6H	21.37	21.66	22.50	22.78	24.31	21.21	21.50	22.34	22.63	24.15
	8H	21.66	21.91	22.79	23.03	24.60	21.47	21.72	22.61	22.85	24.41