

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: P855468

Luminaire Tested: SQ2-F-150U-075D-840-UNV-STD-W-4

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P855468
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-14, G2-2308-131-13)
Test Lab: INNOVATION CENTER
Issue Date: 7/12/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ2-F-150U-075D-840-UNV-STD-W-4
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE
DOWNLIGHT 750 LUMENS PER FOOT
UPLIGHT 1500 LUMENS PER FOOT
Light Source: -
Ballast/Driver: -

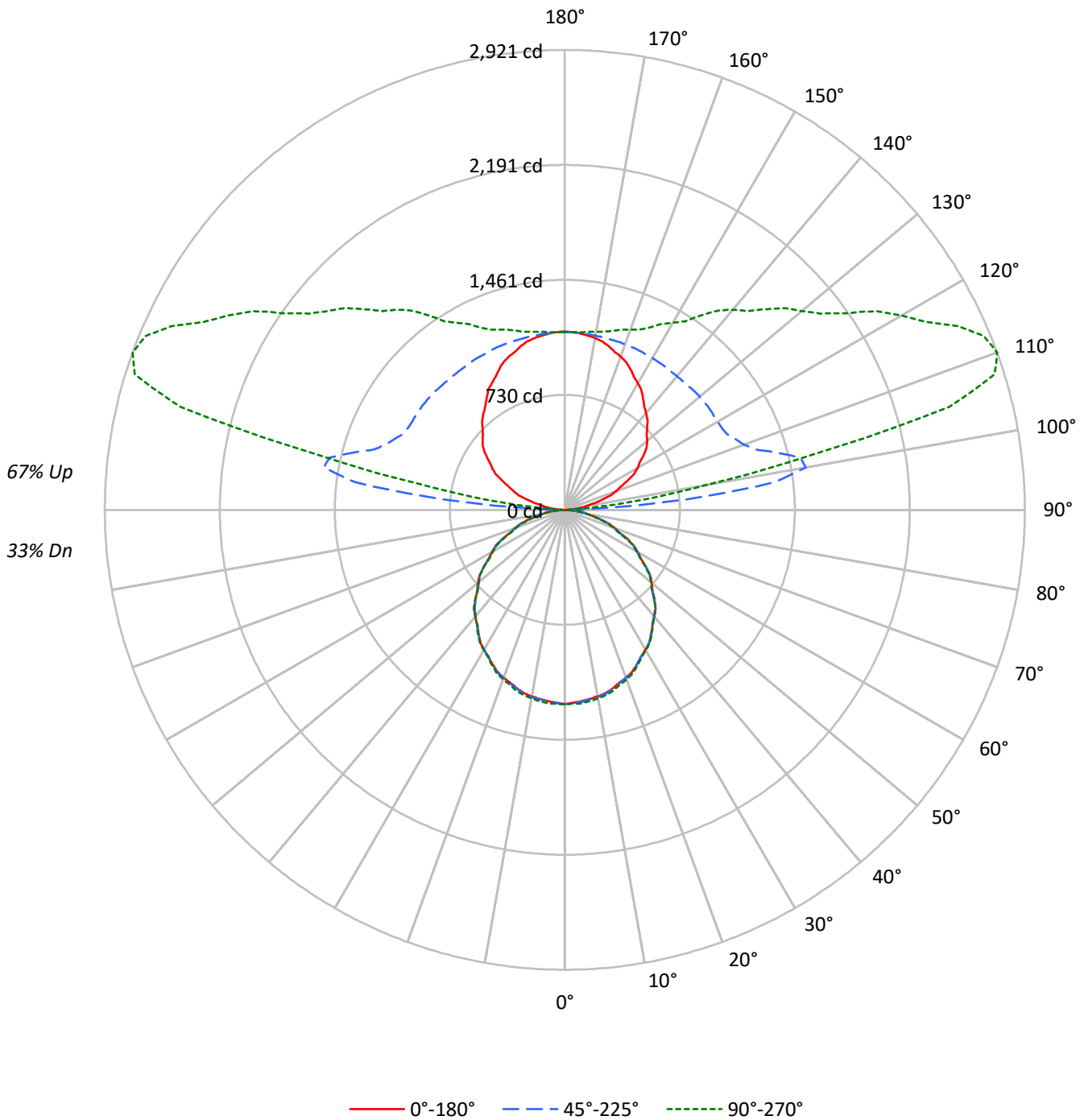
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 10439.9 lumens
Efficiency: N/A
Efficacy: 125.3 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): 83.3
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

TEST NUMBER: P855468
CATALOG NUMBER: SQ2-F-150U-075D-840-UNV-STD-W-4

Luminous Intensity Polar Plot





TEST NUMBER: P855468

CATALOG NUMBER: SQ2-F-150U-075D-840-UNV-STD-W-4

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	103	103	103	103	93	93	93	93	74	74	74	57	57	57	41	41	41	33
1	94	90	86	82	85	81	78	75	65	62	60	50	48	47	36	35	34	28
2	85	78	72	67	77	71	65	61	56	53	50	43	41	39	31	30	29	23
3	78	69	61	56	70	62	56	51	50	45	42	38	35	33	28	26	24	19
4	71	60	53	47	64	55	48	43	44	39	35	34	31	28	25	22	21	17
5	65	54	46	40	58	49	42	37	39	34	30	30	27	24	22	20	18	14
6	60	48	40	34	54	44	37	32	35	30	26	27	24	21	20	18	16	13
7	55	43	35	30	50	39	32	28	32	27	23	25	21	18	18	16	14	11
8	51	39	32	26	46	36	29	24	29	24	20	23	19	16	17	14	12	10
9	48	36	28	23	43	32	26	22	26	21	18	21	17	15	15	13	11	9
10	44	32	25	21	40	30	23	19	24	19	16	19	16	13	14	12	10	8

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



TEST NUMBER: P855468

CATALOG NUMBER: SQ2-F-150U-075D-840-UNV-STD-W-4

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	116.6	1.1
10°-20°	333.3	3.2
20°-30°	501.4	4.8
30°-40°	600.0	5.7
40°-50°	619.0	5.9
50°-60°	558.5	5.3
60°-70°	426.2	4.1
70°-80°	245.0	2.3
80°-90°	65.2	0.6
90°-100°	430.6	4.1
100°-110°	1409.9	13.5
110°-120°	1393.9	13.4
120°-130°	1139.4	10.9
130°-140°	929.8	8.9
140°-150°	723.6	6.9
150°-160°	521.0	5.0
160°-170°	318.8	3.1
170°-180°	107.7	1.0
0°-30°	951.4	9.1
0°-40°	1551.4	14.9
0°-60°	2728.9	26.1
0°-90°	3465.3	33.2
90°-120°	3234.3	31.0
90°-150°	6027.2	57.7
90°-180°	6975.0	66.8
0°-180°	10439.9	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°	1	3	9	8	9	5
95°	60	175	783	279	181	69
105°	245	350	1399	2659	2526	258
115°	441	528	1137	2349	2758	436
125°	614	685	1121	1853	2176	547
135°	740	818	1111	1598	1801	572
145°	865	929	1109	1375	1506	542
155°	986	1019	1116	1230	1278	454
165°	1077	1087	1121	1164	1176	303
175°	1125	1125	1127	1135	1132	107
180°	1130	1130	1130	1130	1130	



TEST NUMBER: P855468

CATALOG NUMBER: SQ2-F-150U-075D-840-UNV-STD-W-4

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°	16.3	15.5	15.3	12.4	12.6
90°	1.2	3.4	9.3	8.2	9.3
92.5°	19.7	72.0	221.1	71.9	57.6
95°	60.4	175.0	782.8	278.9	181.2
97.5°	109.7	230.9	1343.0	812.4	503.6
100°	144.0	259.9	1553.9	1387.6	919.9
102.5°	183.1	296.1	1530.8	2044.7	1585.1
105°	245.1	349.5	1399.4	2658.9	2526.0
107.5°	306.2	401.9	1271.5	2716.3	2862.3
110°	346.1	439.2	1210.2	2649.4	2920.8



TEST NUMBER: P855468

CATALOG NUMBER: SQ2-F-150U-075D-840-UNV-STD-W-4

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	384.2	474.6	1173.0	2533.2	2880.9
115°	441.3	527.6	1137.0	2349.4	2758.3
117.5°	496.8	577.5	1123.3	2168.9	2584.0
120°	533.1	609.2	1119.6	2063.7	2468.0
122.5°	565.6	639.8	1119.6	1972.9	2348.1
125°	614.4	684.8	1120.8	1852.8	2176.4
127.5°	655.8	727.4	1119.4	1764.3	2045.9
130°	681.8	754.4	1118.4	1710.7	1965.1
132.5°	705.0	779.4	1115.6	1664.7	1895.4
135°	739.8	818.1	1111.4	1598.0	1801.2
137.5°	776.5	854.1	1108.9	1528.7	1712.3
140°	802.5	877.4	1107.9	1484.7	1658.5
142.5°	828.5	899.0	1107.9	1437.9	1595.3
145°	865.2	928.8	1109.1	1374.6	1506.3
147.5°	903.8	956.7	1110.7	1319.5	1419.0
150°	927.9	974.5	1112.6	1287.5	1371.6
152.5°	952.1	993.2	1113.5	1261.2	1330.7
155°	986.0	1018.9	1116.1	1229.8	1277.5
157.5°	1016.5	1040.2	1118.7	1205.1	1239.6
160°	1035.9	1055.3	1119.6	1191.0	1218.3
162.5°	1052.7	1068.3	1119.6	1179.7	1199.7
165°	1076.6	1086.9	1120.8	1164.0	1176.5
167.5°	1096.8	1101.8	1122.2	1151.8	1158.6
170°	1107.9	1110.3	1123.1	1145.1	1147.5
172.5°	1116.3	1117.7	1125.9	1140.5	1140.9
175°	1125.4	1125.4	1126.6	1134.6	1132.3
177.5°	1130.0	1129.2	1128.1	1133.7	1130.0
180°	1130.0	1130.0	1130.0	1130.0	1130.0



TEST NUMBER: P855468

CATALOG NUMBER: SQ2-F-150U-075D-840-UNV-STD-W-4

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	16.57	17.31	17.66	18.40	19.89	16.50	17.23	17.58	18.32	19.81
	3H	18.35	19.00	19.44	20.10	21.61	18.23	18.88	19.32	19.98	21.49
	4H	19.00	19.62	20.10	20.72	22.24	18.85	19.47	19.95	20.57	22.08
	6H	19.46	20.04	20.58	21.14	22.66	19.28	19.85	20.39	20.95	22.48
	8H	19.59	20.14	20.71	21.26	22.78	19.39	19.94	20.51	21.06	22.58
	12H	19.66	20.18	20.79	21.29	22.84	19.44	19.96	20.57	21.07	22.62
4H	2H	17.11	17.73	18.22	18.83	20.35	17.05	17.67	18.16	18.77	20.29
	3H	19.09	19.61	20.21	20.73	22.26	18.98	19.50	20.10	20.62	22.15
	4H	19.87	20.35	20.99	21.46	23.01	19.73	20.21	20.85	21.32	22.87
	6H	20.45	20.86	21.58	22.00	23.54	20.27	20.68	21.40	21.82	23.36
	8H	20.64	21.02	21.77	22.15	23.70	20.44	20.82	21.57	21.95	23.50
	12H	20.73	21.08	21.88	22.22	23.78	20.51	20.85	21.65	21.99	23.55
8H	4H	20.11	20.49	21.24	21.62	23.17	19.98	20.36	21.11	21.49	23.05
	6H	20.82	21.14	21.97	22.31	23.86	20.65	20.97	21.81	22.14	23.69
	8H	21.08	21.36	22.24	22.51	24.08	20.89	21.17	22.05	22.32	23.89
	12H	21.25	21.49	22.41	22.64	24.24	21.02	21.26	22.18	22.41	24.02
12H	4H	20.09	20.44	21.24	21.58	23.14	19.97	20.32	21.12	21.46	23.02
	6H	20.86	21.14	22.02	22.29	23.86	20.70	20.98	21.86	22.13	23.70
	8H	21.15	21.39	22.31	22.54	24.15	20.96	21.21	22.12	22.35	23.96