

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: P853901

Luminaire Tested: SQ2-FB-150U-075D-940-UNV-STD-W-4

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P853901
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-14, G2-2308-131-12)
Test Lab: INNOVATION CENTER
Issue Date: 7/12/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ2-FB-150U-075D-940-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

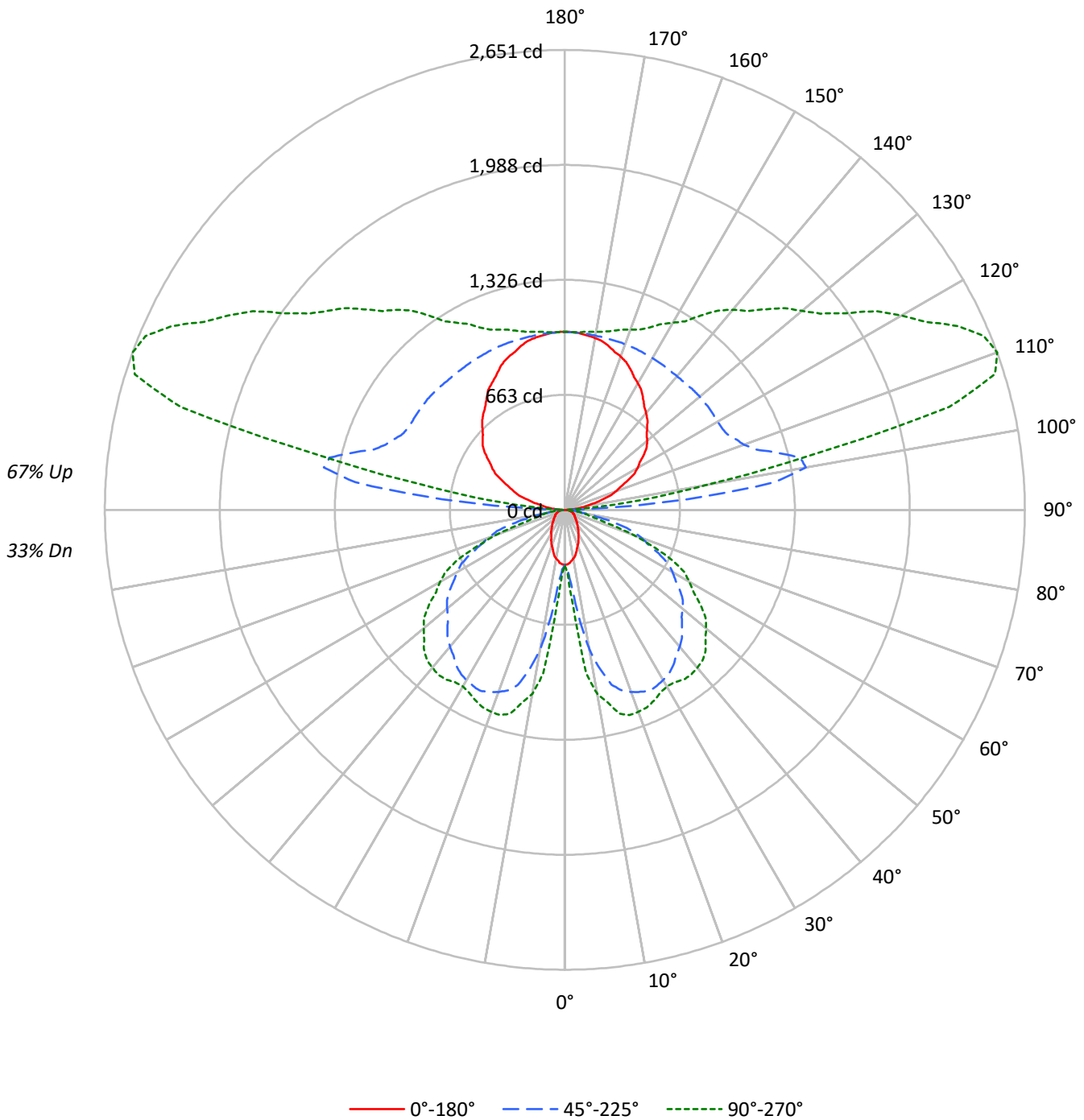
Lumens per Lamp: N/A
Luminaire Lumens: 9467.9 lumens
Efficiency: N/A
Efficacy: 113.7 lumens/watt
Spacing Criteria (0/90/45): 0.84 / 2.98 / 2.56
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: Semi-Indirect

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

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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	103	103	103	103	93	93	93	93	74	74	74	57	57	57	41	41	41	33
1	94	90	86	82	84	81	78	75	65	62	60	50	48	47	36	35	34	28
2	85	78	72	67	77	70	65	61	56	53	50	43	41	39	31	30	28	23
3	78	68	61	55	70	62	55	50	49	45	41	38	35	32	27	25	24	19
4	71	60	52	46	63	54	48	42	43	39	35	33	30	27	24	22	20	16
5	65	53	45	39	58	48	41	36	39	33	30	30	26	23	21	19	17	14
6	59	47	39	34	53	43	36	31	34	29	25	27	23	20	19	17	15	12
7	55	42	35	29	49	39	32	27	31	26	22	24	20	17	17	15	13	10
8	50	38	31	25	45	35	28	23	28	23	19	22	18	15	16	13	11	9
9	47	35	27	22	42	32	25	21	26	21	17	20	16	14	15	12	10	8
10	44	32	25	20	39	29	22	18	23	19	15	18	15	12	13	11	9	7

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	5125	5125	5125
5°	4995	6925	9076
10°	4677	13409	17662
15°	4234	17446	20329
20°	3749	19192	21289
25°	3317	20525	21638
30°	2931	21138	21906
35°	2618	21504	23550
40°	2380	21709	25022
45°	2194	21811	26202
50°	2070	22230	26676
55°	2018	22809	26888
60°	2070	23111	26757
65°	2159	22793	26002
70°	2233	22041	19667
75°	2477	19800	10855
80°	2557	10219	10070
85°	2538	7058	4242

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 52.5°
 Luminance: 27132 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	53.2	0.6
10°-20°	242.7	2.6
20°-30°	427.1	4.5
30°-40°	552.8	5.8
40°-50°	609.7	6.4
50°-60°	569.2	6.0
60°-70°	440.0	4.6
70°-80°	202.9	2.1
80°-90°	39.9	0.4
90°-100°	390.8	4.1
100°-110°	1279.7	13.5
110°-120°	1265.1	13.4
120°-130°	1034.2	10.9
130°-140°	843.9	8.9
140°-150°	656.8	6.9
150°-160°	472.9	5.0
160°-170°	289.3	3.1
170°-180°	97.8	1.0
0°-30°	723.0	7.6
0°-40°	1275.7	13.5
0°-60°	2454.6	25.9
0°-90°	3137.4	33.1
90°-120°	2935.6	31.0
90°-150°	5470.5	57.8
90°-180°	6330.0	66.9
0°-180°	9467.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	317	317	317	317	317	
5°	308	353	427	521	560	29
15°	253	500	1044	1168	1216	71
25°	186	671	1152	1203	1215	86
35°	133	648	1091	1129	1195	84
45°	96	496	955	1097	1148	75
55°	72	296	810	931	955	65
65°	56	167	597	669	681	55
75°	40	102	317	171	174	41
85°	14	30	38	26	23	14
90°	1	3	8	7	8	3
95°	55	159	710	253	164	62
105°	222	317	1270	2413	2293	234
115°	401	479	1032	2132	2504	396
125°	558	622	1017	1682	1975	496
135°	672	743	1009	1450	1635	520
145°	785	843	1007	1248	1367	492
155°	895	925	1013	1116	1160	412
165°	977	986	1017	1056	1068	275
175°	1021	1021	1022	1030	1028	97
180°	1026	1026	1026	1026	1026	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	317.4	317.4	317.4	317.4	317.4
2.5°	314.9	328.1	343.0	360.3	367.4
5°	308.2	353.0	427.3	521.2	560.0
7.5°	296.3	387.3	621.4	872.8	950.3
10°	285.3	412.2	817.9	1035.5	1077.3
12.5°	273.1	445.3	941.2	1094.1	1137.1
15°	253.3	499.5	1043.7	1168.4	1216.2
17.5°	232.9	560.5	1091.3	1214.3	1240.3
20°	218.2	603.1	1117.0	1222.6	1239.0
22.5°	204.8	635.1	1135.3	1215.3	1232.9
25°	186.2	671.1	1152.1	1202.7	1214.6
27.5°	168.2	680.5	1144.7	1178.0	1189.6
30°	157.2	677.9	1133.8	1158.5	1175.0
32.5°	147.4	670.5	1117.9	1141.9	1177.4
35°	132.8	647.5	1091.0	1129.1	1194.8
37.5°	120.2	610.5	1055.6	1133.7	1196.9
40°	112.9	582.9	1030.0	1133.4	1187.2
42.5°	105.6	550.5	1000.7	1121.2	1175.0
45°	96.1	496.0	955.2	1096.8	1147.5
47.5°	87.3	434.6	913.1	1062.9	1099.9
50°	82.4	392.7	885.0	1032.2	1062.0
52.5°	77.5	352.0	857.0	995.5	1023.0
55°	71.7	295.5	810.3	931.3	955.2
57.5°	66.5	247.1	757.2	860.4	879.8
60°	64.1	220.7	715.7	809.2	828.6
62.5°	60.4	196.8	669.3	755.4	773.6
65°	56.5	166.9	596.6	668.6	680.6
67.5°	51.0	144.7	519.4	563.5	541.1
70°	47.3	133.8	466.9	480.7	416.6
72.5°	44.9	121.8	409.6	373.2	251.8
75°	39.7	102.3	317.4	171.0	174.0
77.5°	32.3	79.2	208.7	131.3	134.0
80°	27.5	64.8	109.9	106.8	108.3
82.5°	22.6	50.3	75.7	78.7	76.6
85°	13.7	30.1	38.1	25.9	22.9
87.5°	5.1	11.5	7.8	7.6	7.8
90°	1.1	3.1	8.4	7.4	8.4
92.5°	17.9	65.3	200.7	65.3	52.3
95°	54.8	158.9	710.5	253.1	164.4
97.5°	99.5	209.6	1219.0	737.4	457.1
100°	130.7	235.8	1410.4	1259.5	834.9
102.5°	166.1	268.8	1389.3	1855.9	1438.7
105°	222.4	317.2	1270.2	2413.3	2292.7
107.5°	277.9	364.9	1154.0	2465.4	2598.0
110°	314.1	398.6	1098.4	2404.8	2651.1



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	348.7	430.7	1064.7	2299.2	2614.8
115°	400.6	478.9	1032.0	2132.5	2503.5
117.5°	451.0	524.1	1019.5	1968.6	2345.4
120°	483.8	552.9	1016.2	1873.1	2240.0
122.5°	513.4	580.8	1016.2	1790.7	2131.2
125°	557.6	621.5	1017.2	1681.7	1975.4
127.5°	595.2	660.3	1016.0	1601.3	1856.9
130°	618.8	684.7	1015.1	1552.7	1783.6
132.5°	639.8	707.5	1012.6	1510.9	1720.3
135°	671.5	742.6	1008.8	1450.4	1634.9
137.5°	704.8	775.3	1006.5	1387.4	1554.2
140°	728.4	796.4	1005.6	1347.6	1505.3
142.5°	752.0	815.9	1005.6	1305.1	1447.9
145°	785.3	843.0	1006.7	1247.6	1367.2
147.5°	820.3	868.3	1008.2	1197.6	1287.9
150°	842.2	884.5	1009.8	1168.6	1244.9
152.5°	864.2	901.5	1010.7	1144.7	1207.8
155°	894.9	924.8	1013.0	1116.2	1159.5
157.5°	922.6	944.2	1015.3	1093.8	1125.2
160°	940.3	957.8	1016.2	1081.0	1105.8
162.5°	955.5	969.7	1016.2	1070.8	1088.9
165°	977.2	986.4	1017.2	1056.5	1067.8
167.5°	995.5	1000.0	1018.5	1045.4	1051.6
170°	1005.6	1007.7	1019.3	1039.4	1041.5
172.5°	1013.2	1014.5	1021.9	1035.2	1035.6
175°	1021.4	1021.4	1022.5	1029.8	1027.8
177.5°	1025.7	1024.8	1024.0	1029.0	1025.7
180°	1025.7	1025.7	1025.7	1025.7	1025.7

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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	10.95	11.70	12.04	12.78	14.27	19.69	20.43	20.77	21.52	23.01
	3H	11.67	12.34	12.77	13.44	14.94	21.30	21.97	22.40	23.06	24.57
	4H	11.97	12.60	13.07	13.70	15.21	21.48	22.11	22.58	23.21	24.72
	6H	12.18	12.76	13.29	13.86	15.39	21.56	22.14	22.67	23.24	24.76
	8H	12.23	12.79	13.35	13.90	15.42	21.56	22.11	22.67	23.23	24.75
	12H	12.26	12.78	13.38	13.89	15.44	21.52	22.05	22.65	23.16	24.70
4H	2H	15.34	15.97	16.45	17.07	18.58	20.12	20.75	21.23	21.85	23.36
	3H	16.26	16.78	17.38	17.91	19.44	21.93	22.46	23.05	23.58	25.11
	4H	16.53	17.02	17.66	18.13	19.68	22.16	22.65	23.29	23.76	25.31
	6H	16.66	17.07	17.79	18.21	19.75	22.30	22.72	23.43	23.85	25.39
	8H	16.68	17.06	17.81	18.19	19.75	22.32	22.71	23.45	23.84	25.40
	12H	16.66	17.01	17.81	18.15	19.72	22.29	22.64	23.44	23.78	25.34
8H	4H	17.70	18.09	18.83	19.21	20.77	22.27	22.66	23.40	23.79	25.34
	6H	17.93	18.25	19.08	19.42	20.97	22.47	22.79	23.62	23.96	25.51
	8H	18.00	18.28	19.16	19.43	21.00	22.53	22.81	23.69	23.96	25.53
	12H	18.02	18.27	19.18	19.41	21.02	22.52	22.76	23.68	23.91	25.52
12H	4H	17.71	18.06	18.86	19.20	20.76	22.22	22.57	23.36	23.71	25.27
	6H	18.02	18.30	19.18	19.45	21.03	22.45	22.73	23.61	23.88	25.45
	8H	18.12	18.37	19.28	19.51	21.12	22.51	22.76	23.68	23.90	25.51