

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: P855187

Luminaire Tested: SQ2-FB-150U-075D-835-UNV-STD-W-4

Issue Date: 7/12/2024

**Test Information**

Test Method: LM-79-2019  
Report Number: P855187  
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-835-UNV-STD-W-4  
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE  
DOWNLIGHT 750 LUMENS PER FOOT  
UPLIGHT 1500 LUMENS PER FOOT  
Light Source: -  
Ballast/Driver: -

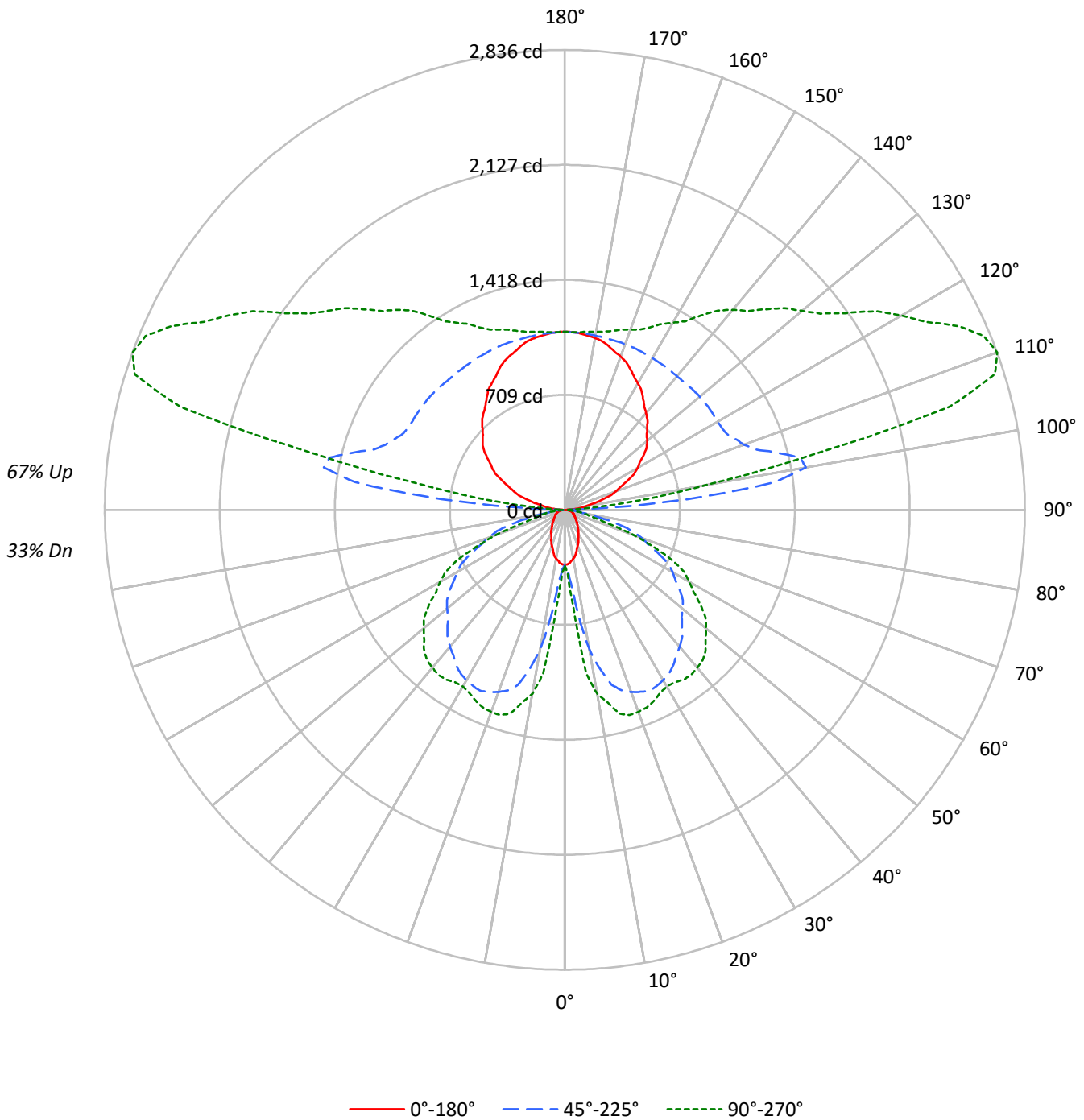
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 10129.4 lumens  
Efficiency: N/A  
Efficacy: 121.6 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	50	30	10	0	
RCR																						
0	103	103	103	103	93	93	93	93	74	74	74	57	57	57	41	41	41	33				33
1	94	90	86	82	84	81	78	75	65	62	60	50	48	47	36	35	34	28				28
2	85	78	72	67	77	70	65	61	56	53	50	43	41	39	31	30	28	23				23
3	78	68	61	55	70	62	55	50	49	45	41	38	35	32	27	25	24	19				19
4	71	60	52	46	63	54	48	42	43	39	35	33	30	27	24	22	20	16				16
5	65	53	45	39	58	48	41	36	39	33	30	30	26	23	21	19	17	14				14
6	59	47	39	34	53	43	36	31	34	29	25	27	23	20	19	17	15	12				12
7	55	42	35	29	49	39	32	27	31	26	22	24	20	17	17	15	13	10				10
8	50	38	31	25	45	35	28	23	28	23	19	22	18	15	16	13	11	9				9
9	47	35	27	22	42	32	25	21	26	21	17	20	16	14	15	12	10	8				8
10	44	32	25	20	39	29	22	18	23	19	15	18	15	12	13	11	9	7				7

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	5483	5483	5483
5°	5345	7408	9710
10°	5005	14346	18897
15°	4530	18664	21748
20°	4012	20533	22777
25°	3549	21957	23151
30°	3136	22613	23437
35°	2799	23006	25194
40°	2548	23225	26770
45°	2350	23336	28031
50°	2215	23785	28540
55°	2159	24403	28769
60°	2215	24726	28623
65°	2308	24386	27817
70°	2389	23580	21036
75°	2645	21185	11616
80°	2734	10934	10776
85°	2723	7577	4520

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 52.5°  
 Luminance: 29026 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	56.9	0.6
10°-20°	259.7	2.6
20°-30°	456.9	4.5
30°-40°	591.4	5.8
40°-50°	652.3	6.4
50°-60°	609.0	6.0
60°-70°	470.7	4.6
70°-80°	217.1	2.1
80°-90°	42.7	0.4
90°-100°	418.1	4.1
100°-110°	1369.1	13.5
110°-120°	1353.5	13.4
120°-130°	1106.4	10.9
130°-140°	902.9	8.9
140°-150°	702.7	6.9
150°-160°	505.9	5.0
160°-170°	309.5	3.1
170°-180°	104.6	1.0
0°-30°	773.5	7.6
0°-40°	1364.9	13.5
0°-60°	2626.2	25.9
0°-90°	3356.6	33.1
90°-120°	3140.7	31.0
90°-150°	5852.7	57.8
90°-180°	6773.0	66.9
0°-180°	10129.4	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	340	340	340	340	340	
5°	330	378	457	558	599	31
15°	271	534	1117	1250	1301	76
25°	199	718	1232	1287	1300	92
35°	142	693	1167	1208	1278	89
45°	103	531	1022	1173	1228	80
55°	77	316	867	996	1022	69
65°	60	179	638	715	728	59
75°	42	109	340	183	186	44
85°	15	32	41	28	24	15
90°	1	3	9	8	9	4
95°	59	170	760	271	176	67
105°	238	339	1359	2582	2453	251
115°	429	512	1104	2281	2678	423
125°	597	665	1088	1799	2113	531
135°	718	794	1079	1552	1749	556
145°	840	902	1077	1335	1463	526
155°	958	989	1084	1194	1240	441
165°	1045	1055	1088	1130	1142	295
175°	1093	1093	1094	1102	1100	104
180°	1097	1097	1097	1097	1097	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	339.6	339.6	339.6	339.6	339.6
2.5°	336.9	351.0	367.0	385.4	393.1
5°	329.8	377.6	457.1	557.7	599.1
7.5°	317.0	414.4	664.7	933.7	1016.7
10°	305.3	441.0	875.0	1107.9	1152.6
12.5°	292.2	476.4	1007.0	1170.6	1216.5
15°	271.0	534.4	1116.6	1250.0	1301.1
17.5°	249.1	599.7	1167.5	1299.1	1326.9
20°	233.5	645.3	1195.0	1308.1	1325.6
22.5°	219.1	679.5	1214.6	1300.3	1319.1
25°	199.2	717.9	1232.5	1286.7	1299.5
27.5°	179.9	728.0	1224.7	1260.2	1272.7
30°	168.2	725.3	1212.9	1239.5	1257.1
32.5°	157.8	717.4	1195.9	1221.6	1259.7
35°	142.0	692.7	1167.2	1208.1	1278.2
37.5°	128.7	653.2	1129.4	1212.9	1280.6
40°	120.9	623.7	1101.9	1212.6	1270.1
42.5°	112.9	588.9	1070.6	1199.6	1257.1
45°	102.9	530.6	1022.0	1173.4	1227.6
47.5°	93.4	465.0	976.9	1137.1	1176.7
50°	88.2	420.2	946.9	1104.3	1136.2
52.5°	83.0	376.6	916.9	1065.1	1094.4
55°	76.7	316.2	866.9	996.4	1022.0
57.5°	71.2	264.4	810.0	920.6	941.3
60°	68.6	236.2	765.7	865.7	886.4
62.5°	64.6	210.5	716.0	808.2	827.7
65°	60.4	178.6	638.3	715.3	728.1
67.5°	54.5	154.8	555.8	602.8	578.8
70°	50.6	143.2	499.5	514.3	445.6
72.5°	48.0	130.4	438.2	399.3	269.3
75°	42.4	109.4	339.6	182.9	186.2
77.5°	34.6	84.8	223.3	140.4	143.4
80°	29.4	69.3	117.6	114.3	115.9
82.5°	24.2	53.9	81.0	84.2	81.9
85°	14.7	32.3	40.9	27.7	24.4
87.5°	5.4	12.2	8.4	8.1	8.4
90°	1.1	3.3	9.1	7.9	9.1
92.5°	19.1	69.9	214.7	69.8	55.9
95°	58.6	170.0	760.1	270.8	176.0
97.5°	106.5	224.2	1304.1	788.9	489.0
100°	139.9	252.4	1509.0	1347.5	893.2
102.5°	177.8	287.6	1486.4	1985.5	1539.2
105°	238.0	339.4	1358.9	2581.9	2452.9
107.5°	297.3	390.3	1234.6	2637.7	2779.5
110°	336.1	426.5	1175.1	2572.7	2836.3



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	373.1	460.8	1139.0	2459.9	2797.5
115°	428.6	512.3	1104.1	2281.4	2678.4
117.5°	482.4	560.7	1090.8	2106.1	2509.2
120°	517.6	591.5	1087.2	2004.0	2396.5
122.5°	549.2	621.3	1087.2	1915.8	2280.1
125°	596.6	665.0	1088.3	1799.1	2113.4
127.5°	636.8	706.4	1087.0	1713.2	1986.6
130°	662.0	732.5	1086.1	1661.2	1908.2
132.5°	684.5	756.9	1083.3	1616.5	1840.5
135°	718.4	794.4	1079.3	1551.7	1749.1
137.5°	754.0	829.4	1076.8	1484.4	1662.8
140°	779.3	852.0	1075.9	1441.7	1610.5
142.5°	804.5	873.0	1075.9	1396.2	1549.1
145°	840.1	901.9	1077.0	1334.8	1462.7
147.5°	877.6	929.0	1078.6	1281.3	1377.9
150°	901.0	946.3	1080.4	1250.3	1331.9
152.5°	924.6	964.4	1081.3	1224.7	1292.1
155°	957.5	989.4	1083.8	1194.2	1240.5
157.5°	987.0	1010.1	1086.3	1170.3	1203.8
160°	1005.9	1024.7	1087.2	1156.6	1183.0
162.5°	1022.2	1037.4	1087.2	1145.6	1164.9
165°	1045.4	1055.4	1088.3	1130.3	1142.4
167.5°	1065.0	1069.9	1089.7	1118.4	1125.1
170°	1075.9	1078.1	1090.6	1112.0	1114.2
172.5°	1084.0	1085.4	1093.3	1107.4	1107.9
175°	1092.8	1092.8	1094.0	1101.8	1099.5
177.5°	1097.3	1096.5	1095.5	1100.9	1097.3
180°	1097.3	1097.3	1097.3	1097.3	1097.3



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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	11.19	11.93	12.27	13.02	14.51	19.92	20.67	21.01	21.75	23.25
	3H	11.91	12.58	13.00	13.67	15.18	21.54	22.20	22.63	23.30	24.81
	4H	12.20	12.84	13.31	13.93	15.45	21.71	22.34	22.82	23.44	24.96
	6H	12.41	12.99	13.53	14.09	15.62	21.79	22.37	22.90	23.47	25.00
	8H	12.47	13.02	13.59	14.14	15.66	21.79	22.34	22.91	23.46	24.98
	12H	12.49	13.02	13.61	14.13	15.67	21.76	22.28	22.88	23.39	24.94
4H	2H	15.57	16.20	16.68	17.30	18.81	20.35	20.98	21.46	22.08	23.60
	3H	16.49	17.02	17.61	18.14	19.67	22.17	22.69	23.28	23.82	25.34
	4H	16.77	17.25	17.89	18.37	19.91	22.40	22.88	23.52	23.99	25.54
	6H	16.89	17.31	18.02	18.44	19.98	22.54	22.95	23.67	24.09	25.63
	8H	16.91	17.30	18.04	18.43	19.98	22.56	22.94	23.69	24.07	25.63
	12H	16.90	17.25	18.05	18.39	19.95	22.53	22.88	23.67	24.02	25.58
8H	4H	17.93	18.32	19.07	19.45	21.01	22.51	22.89	23.64	24.02	25.58
	6H	18.17	18.48	19.32	19.66	21.21	22.71	23.02	23.86	24.19	25.75
	8H	18.24	18.51	19.39	19.66	21.24	22.76	23.04	23.92	24.19	25.77
	12H	18.26	18.50	19.42	19.65	21.26	22.75	23.00	23.91	24.14	25.75
12H	4H	17.95	18.30	19.09	19.44	21.00	22.45	22.80	23.60	23.94	25.50
	6H	18.26	18.54	19.42	19.69	21.26	22.69	22.96	23.84	24.11	25.69
	8H	18.36	18.60	19.52	19.75	21.36	22.75	22.99	23.91	24.14	25.75