

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: P855242

Luminaire Tested: SQ2-FB-025U-075D-835-UNV-STD-W-4

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P855242
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-9, G2-2308-131-12)
Test Lab: INNOVATION CENTER
Issue Date: 7/12/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ2-FB-025U-075D-835-UNV-STD-W-4
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE
DOWNLIGHT 750 LUMENS PER FOOT
UPLIGHT 250 LUMENS PER FOOT
Light Source: -
Ballast/Driver: -

Summary

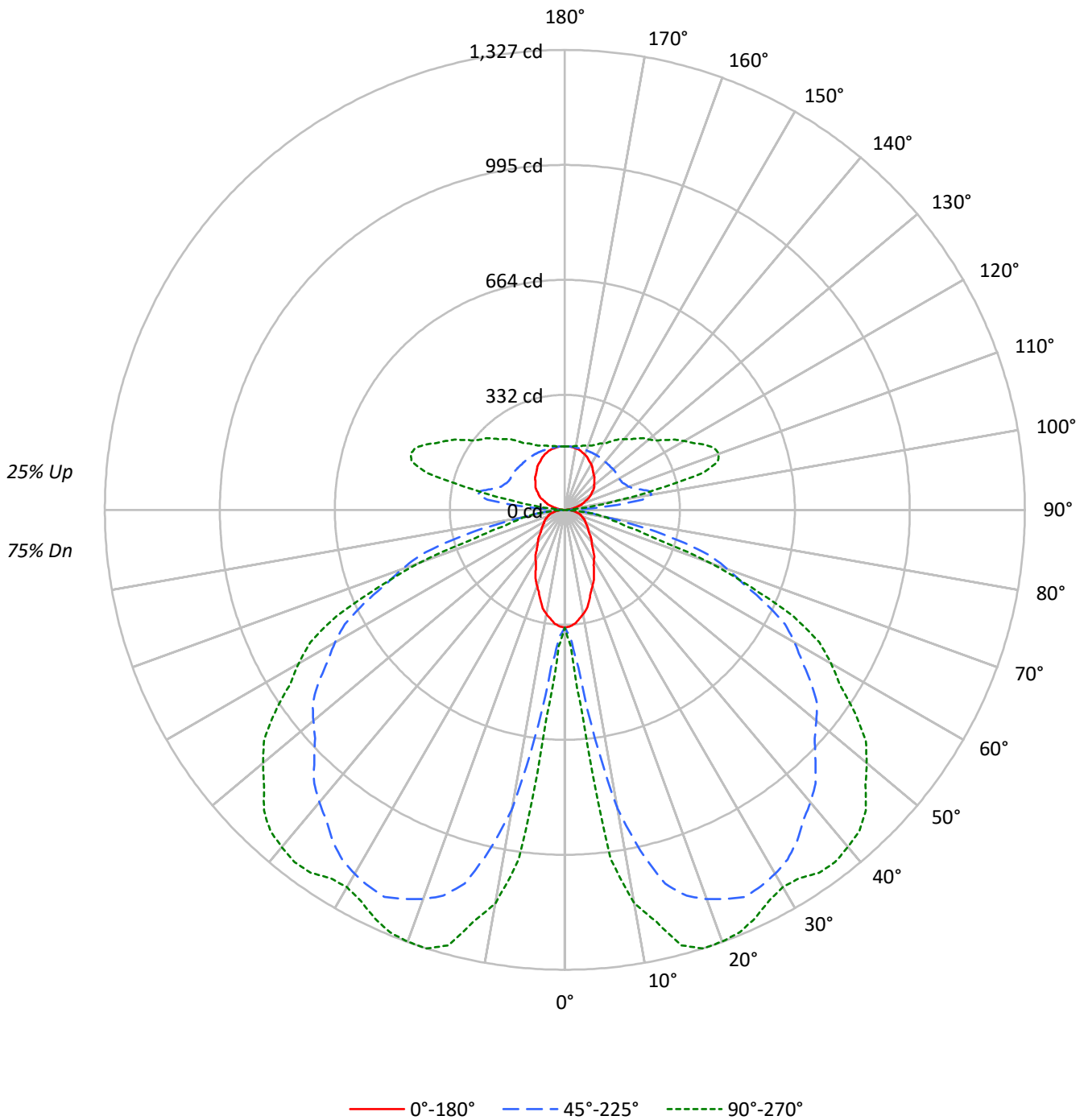
Lumens per Lamp: N/A
Luminaire Lumens: 4493.8 lumens
Efficiency: N/A
Efficacy: 131.8 lumens/watt
Spacing Criteria (0/90/45): 0.84 / 2.98 / 2.56
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: Semi-Direct

Input Watts (W): 34.1
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	113	113	113	113	107	107	107	107	97	97	97	88	88	88	79	79	79	75				
1	103	98	94	91	98	94	90	87	85	82	79	77	75	73	69	68	66	62				
2	93	85	79	73	88	81	75	70	74	69	65	67	63	60	60	57	55	51				
3	85	74	66	60	80	71	64	58	64	59	54	58	54	50	53	49	46	43				
4	77	65	57	50	73	62	55	49	57	50	45	52	46	42	47	42	39	36				
5	71	58	49	43	67	55	47	41	50	44	39	46	40	36	42	37	33	30				
6	65	52	43	37	61	49	41	35	45	38	33	41	35	31	37	33	29	26				
7	60	47	38	32	57	45	37	31	41	34	29	37	31	27	34	29	25	23				
8	55	42	34	28	52	40	33	27	37	30	25	34	28	24	31	26	22	20				
9	51	38	30	25	49	37	29	24	34	27	23	31	25	21	28	23	20	18				
10	48	35	27	22	46	34	26	21	31	25	20	28	23	19	26	21	18	16				

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	1.3
10°-20°	259.7	5.8
20°-30°	456.9	10.2
30°-40°	591.4	13.2
40°-50°	652.3	14.5
50°-60°	609.0	13.6
60°-70°	470.7	10.5
70°-80°	217.1	4.8
80°-90°	41.9	0.9
90°-100°	74.2	1.7
100°-110°	230.8	5.1
110°-120°	225.8	5.0
120°-130°	184.3	4.1
130°-140°	150.8	3.4
140°-150°	117.7	2.6
150°-160°	84.9	1.9
160°-170°	51.9	1.2
170°-180°	17.5	0.4
0°-30°	773.5	17.2
0°-40°	1364.9	30.4
0°-60°	2626.2	58.4
0°-90°	3355.9	74.7
90°-120°	530.8	11.8
90°-150°	983.6	21.9
90°-180°	1138.0	25.3
0°-180°	4493.8	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°	0	1	3	3	3	1
95°	10	30	136	50	33	12
105°	40	57	227	434	414	43
115°	72	85	184	381	445	71
125°	100	111	182	299	351	89
135°	120	134	181	258	290	93
145°	141	152	181	223	243	88
155°	161	166	182	200	207	74
165°	176	178	183	189	191	50
175°	183	183	183	184	183	17
180°	183	183	183	183	183	



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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°	5.2	11.9	7.2	7.2	7.2
90°	0.0	1.1	3.4	3.4	3.4
92.5°	3.6	12.6	43.0	14.1	11.4
95°	10.1	29.9	136.1	50.2	32.6
97.5°	18.4	38.9	225.4	140.3	88.4
100°	24.8	43.5	254.2	237.8	158.5
102.5°	31.0	48.9	248.9	339.6	266.6
105°	40.5	57.0	227.2	433.8	414.0
107.5°	49.9	65.3	206.5	441.0	462.7
110°	56.2	71.6	195.7	430.6	473.5



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	62.6	77.1	190.3	412.0	466.4
115°	72.0	85.2	184.5	380.6	445.4
117.5°	81.3	93.4	182.0	350.5	416.9
120°	86.6	98.7	181.1	333.3	397.1
122.5°	92.0	104.1	182.0	318.8	377.3
125°	100.2	111.1	182.2	299.2	350.9
127.5°	106.6	117.8	182.2	284.7	328.6
130°	110.2	122.3	182.2	276.5	316.1
132.5°	114.8	126.9	181.3	269.2	306.1
135°	120.4	133.5	181.1	258.4	290.2
137.5°	126.9	139.0	181.1	247.5	276.5
140°	130.5	142.6	181.1	240.1	266.6
142.5°	135.0	146.2	181.1	232.9	256.7
145°	140.6	151.6	181.1	223.2	243.0
147.5°	147.3	156.8	182.2	214.1	229.7
150°	151.9	159.6	182.2	209.5	221.6
152.5°	155.5	162.3	182.2	204.9	215.2
155°	160.8	166.4	182.2	200.4	207.0
157.5°	166.2	170.4	182.2	196.2	200.4
160°	169.9	173.1	182.2	193.5	196.8
162.5°	172.6	175.0	182.2	191.7	194.2
165°	176.5	177.7	183.3	189.0	191.3
167.5°	179.0	179.3	182.2	187.4	188.5
170°	179.9	181.1	182.2	185.6	186.7
172.5°	181.7	182.0	183.1	184.7	184.9
175°	183.3	183.3	183.3	184.5	183.3
177.5°	183.3	183.3	183.3	183.3	183.3
180°	183.3	183.3	183.3	183.3	183.3



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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	14.97	16.15	15.68	16.89	17.75	23.71	24.89	24.41	25.62	26.49
	3H	15.73	16.79	16.45	17.53	18.43	25.35	26.42	26.07	27.16	28.06
	4H	16.04	17.05	16.78	17.80	18.71	25.55	26.55	26.29	27.31	28.22
	6H	16.27	17.20	17.03	17.96	18.89	25.65	26.58	26.40	27.34	28.27
	8H	16.34	17.23	17.10	18.01	18.93	25.67	26.55	26.43	27.33	28.26
	12H	16.38	17.23	17.15	18.00	18.96	25.65	26.49	26.42	27.27	28.22
4H	2H	19.41	20.41	20.15	21.16	22.08	24.19	25.19	24.93	25.95	26.86
	3H	20.37	21.21	21.13	22.00	22.93	26.05	26.88	26.80	27.67	28.60
	4H	20.67	21.43	21.44	22.22	23.18	26.30	27.06	27.07	27.85	28.80
	6H	20.82	21.48	21.61	22.29	23.26	26.46	27.12	27.25	27.94	28.90
	8H	20.85	21.47	21.64	22.27	23.25	26.50	27.11	27.29	27.92	28.90
	12H	20.86	21.41	21.67	22.24	23.23	26.49	27.04	27.30	27.87	28.85
8H	4H	21.87	22.49	22.67	23.30	24.27	26.44	27.06	27.24	27.87	28.85
	6H	22.13	22.64	22.95	23.48	24.46	26.67	27.17	27.49	28.02	29.00
	8H	22.20	22.65	23.04	23.50	24.50	26.73	27.18	27.57	28.03	29.02
	12H	22.24	22.64	23.08	23.48	24.53	26.74	27.14	27.58	27.98	29.03
12H	4H	21.91	22.46	22.72	23.29	24.27	26.41	26.97	27.23	27.80	28.78
	6H	22.22	22.68	23.06	23.52	24.52	26.65	27.10	27.49	27.95	28.95
	8H	22.34	22.74	23.18	23.58	24.63	26.74	27.13	27.57	27.97	29.02