

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: P855193

Luminaire Tested: SQ2-FB-025U-100D-835-UNV-STD-W-4

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P855193
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-100D-835-UNV-STD-W-4
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE
DOWNLIGHT 1000 LUMENS PER FOOT
UPLIGHT 250 LUMENS PER FOOT
Light Source: -
Ballast/Driver: -

Summary

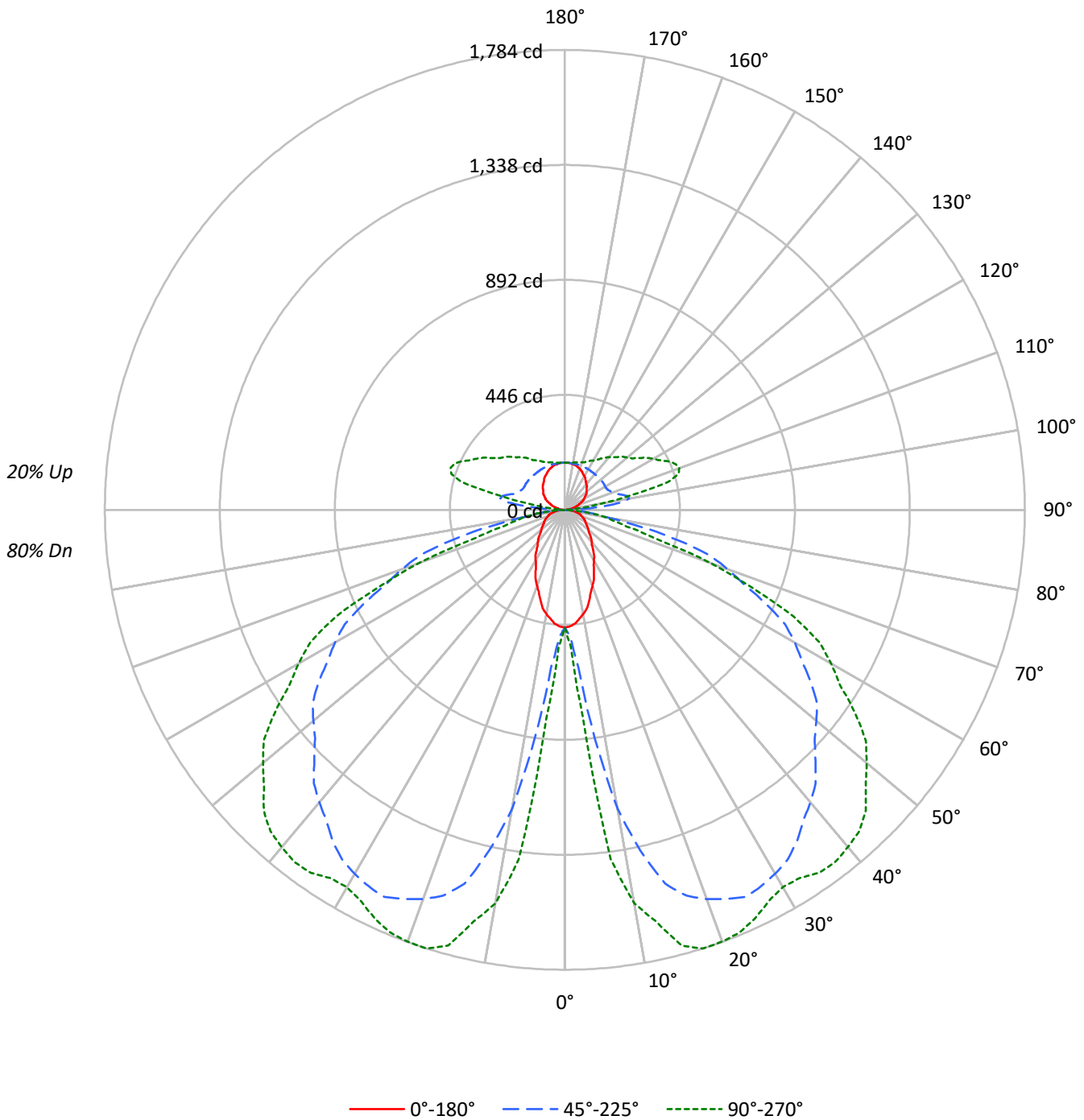
Lumens per Lamp: N/A
Luminaire Lumens: 5646.8 lumens
Efficiency: N/A
Efficacy: 125.5 lumens/watt
Spacing Criteria (0/90/45): 0.84 / 2.98 / 2.56
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: Semi-Direct

Input Watts (W): 45
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
RCR																				
0	114	114	114	114	109	109	109	109	100	100	100	91	91	91	84	84	84	84	80	
1	104	100	95	92	99	95	92	88	87	85	82	80	78	76	74	72	70	70	67	
2	94	86	80	74	90	83	77	72	76	71	67	70	66	62	64	61	58	55	55	
3	86	75	67	61	82	72	65	59	66	60	55	61	56	52	56	52	49	46	46	
4	78	66	57	51	74	63	56	49	58	52	47	54	48	44	49	45	41	38	38	
5	71	59	50	43	68	56	48	42	52	45	40	48	42	37	44	39	35	33	33	
6	66	52	43	37	62	50	42	36	46	39	34	43	37	32	40	34	31	28	28	
7	60	47	38	32	58	45	37	31	42	35	30	39	33	28	36	31	27	24	24	
8	56	43	34	28	53	41	33	28	38	31	26	35	29	25	33	27	24	21	21	
9	52	39	31	25	50	37	30	24	35	28	23	32	26	22	30	25	21	19	19	
10	49	35	28	22	46	34	27	22	32	25	21	30	24	20	28	23	19	17	17	

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	7371	7371	7371
5°	7186	9961	13055
10°	6730	19289	25406
15°	6091	25097	29240
20°	5393	27606	30624
25°	4771	29523	31126
30°	4215	30404	31510
35°	3763	30934	33876
40°	3423	31228	35993
45°	3158	31376	37689
50°	2977	31976	38371
55°	2905	32808	38680
60°	2977	33244	38488
65°	3106	32791	37398
70°	3210	31704	28287
75°	3556	28478	15608
80°	3673	14691	14486
85°	3668	10170	6095

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 52.5°
 Luminance: 39028 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	76.5	1.4
10°-20°	349.1	6.2
20°-30°	614.3	10.9
30°-40°	795.1	14.1
40°-50°	877.0	15.5
50°-60°	818.8	14.5
60°-70°	632.8	11.2
70°-80°	291.9	5.2
80°-90°	56.2	1.0
90°-100°	74.0	1.3
100°-110°	230.2	4.1
110°-120°	225.2	4.0
120°-130°	183.8	3.3
130°-140°	150.4	2.7
140°-150°	117.4	2.1
150°-160°	84.7	1.5
160°-170°	51.8	0.9
170°-180°	17.5	0.3
0°-30°	1039.9	18.4
0°-40°	1835.1	32.5
0°-60°	3530.8	62.5
0°-90°	4511.8	79.9
90°-120°	529.5	9.4
90°-150°	981.1	17.4
90°-180°	1135.0	20.1
0°-180°	5646.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	456	456	456	456	456	
5°	443	508	615	750	806	41
15°	364	718	1501	1681	1749	102
25°	268	965	1657	1730	1747	123
35°	191	931	1569	1624	1719	120
45°	138	713	1374	1578	1651	107
55°	103	425	1166	1340	1374	93
65°	81	240	858	962	979	80
75°	57	147	456	246	250	59
85°	20	43	55	37	33	21
90°	0	1	3	3	3	1
95°	10	30	136	50	33	12
105°	40	57	227	433	413	43
115°	72	85	184	380	444	71
125°	100	111	182	298	350	89
135°	120	133	181	258	290	93
145°	140	151	181	223	242	88
155°	160	166	182	200	206	74
165°	176	177	183	188	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°	456.5	456.5	456.5	456.5	456.5
2.5°	453.0	471.9	493.4	518.2	528.5
5°	443.4	507.8	614.6	749.7	805.5
7.5°	426.3	557.1	893.8	1255.4	1367.0
10°	410.5	592.9	1176.5	1489.5	1549.6
12.5°	392.9	640.5	1353.8	1573.8	1635.7
15°	364.4	718.5	1501.4	1680.6	1749.3
17.5°	335.0	806.2	1569.8	1746.7	1784.1
20°	313.9	867.5	1606.7	1758.7	1782.3
22.5°	294.6	913.5	1633.0	1748.2	1773.5
25°	267.8	965.3	1657.2	1730.0	1747.2
27.5°	241.8	978.9	1646.7	1694.4	1711.2
30°	226.1	975.0	1630.8	1666.5	1690.1
32.5°	212.1	964.5	1608.0	1642.5	1693.6
35°	190.9	931.4	1569.4	1624.2	1718.7
37.5°	172.9	878.2	1518.5	1630.7	1721.7
40°	162.4	838.4	1481.6	1630.4	1707.7
42.5°	151.9	791.8	1439.5	1612.8	1690.1
45°	138.3	713.4	1374.1	1577.7	1650.6
47.5°	125.5	625.1	1313.4	1528.9	1582.1
50°	118.5	564.9	1273.0	1484.7	1527.6
52.5°	111.5	506.4	1232.7	1432.0	1471.5
55°	103.2	425.1	1165.5	1339.7	1374.1
57.5°	95.7	355.3	1089.1	1237.7	1265.7
60°	92.2	317.5	1029.5	1163.9	1191.9
62.5°	86.9	283.0	962.7	1086.6	1112.9
65°	81.3	240.0	858.3	961.8	978.9
67.5°	73.3	208.1	747.1	810.5	778.4
70°	68.0	192.5	671.6	691.4	599.2
72.5°	64.5	175.3	589.1	536.9	362.1
75°	57.0	147.2	456.5	245.9	250.2
77.5°	46.5	114.0	300.2	188.9	192.7
80°	39.5	93.1	158.0	153.7	155.8
82.5°	32.5	72.4	108.9	113.2	110.2
85°	19.8	43.3	54.9	37.2	32.9
87.5°	7.0	15.8	9.5	9.5	9.5
90°	0.0	1.1	3.4	3.4	3.4
92.5°	3.6	12.6	42.9	14.0	11.4
95°	10.1	29.9	135.8	50.1	32.6
97.5°	18.4	38.8	224.9	140.0	88.2
100°	24.7	43.3	253.6	237.2	158.2
102.5°	31.0	48.8	248.2	338.7	265.9
105°	40.4	56.8	226.7	432.6	412.9
107.5°	49.8	65.2	206.0	439.9	461.6
110°	56.1	71.4	195.2	429.6	472.4



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	62.4	76.8	189.9	411.0	465.2
115°	71.9	85.0	184.0	379.6	444.3
117.5°	81.0	93.0	181.5	349.6	415.8
120°	86.3	98.5	180.6	332.5	396.1
122.5°	91.8	103.9	181.5	318.0	376.3
125°	99.8	110.8	181.7	298.5	350.0
127.5°	106.4	117.6	181.7	283.9	327.8
130°	110.0	122.0	181.7	275.8	315.3
132.5°	114.4	126.5	180.8	268.5	305.4
135°	120.1	133.2	180.6	257.7	289.5
137.5°	126.5	138.6	180.6	246.8	275.8
140°	130.1	142.3	180.6	239.6	265.9
142.5°	134.7	145.9	180.6	232.3	256.0
145°	140.2	151.2	180.6	222.6	242.4
147.5°	147.0	156.4	181.7	213.5	229.2
150°	151.4	159.1	181.7	209.0	221.0
152.5°	155.0	161.8	181.7	204.5	214.8
155°	160.5	165.9	181.7	199.9	206.4
157.5°	165.8	170.0	181.7	195.8	200.0
160°	169.4	172.7	181.7	193.1	196.3
162.5°	172.1	174.5	181.7	191.3	193.6
165°	176.2	177.2	182.9	188.5	190.7
167.5°	178.6	178.8	181.7	187.0	188.1
170°	179.5	180.6	181.7	185.1	186.3
172.5°	181.3	181.5	182.7	184.2	184.5
175°	182.9	182.9	182.9	184.0	182.9
177.5°	182.9	182.9	182.9	182.9	182.9
180°	182.9	182.9	182.9	182.9	182.9

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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	16.38	17.64	17.02	18.30	19.07	25.11	26.38	25.76	27.04	27.81
	3H	17.14	18.28	17.80	18.95	19.75	26.77	27.90	27.42	28.58	29.38
	4H	17.46	18.53	18.13	19.22	20.03	26.96	28.04	27.64	28.72	29.54
	6H	17.69	18.69	18.38	19.38	20.21	27.07	28.06	27.76	28.76	29.59
	8H	17.76	18.71	18.47	19.43	20.26	27.09	28.04	27.79	28.75	29.58
	12H	17.81	18.71	18.51	19.42	20.28	27.07	27.98	27.78	28.69	29.55
4H	2H	20.82	21.90	21.50	22.58	23.40	25.60	26.68	26.29	27.37	28.18
	3H	21.80	22.69	22.49	23.42	24.25	27.47	28.37	28.16	29.09	29.92
	4H	22.10	22.91	22.81	23.64	24.50	27.72	28.54	28.44	29.26	30.13
	6H	22.25	22.96	22.98	23.71	24.58	27.89	28.60	28.63	29.35	30.22
	8H	22.28	22.94	23.02	23.69	24.58	27.93	28.59	28.67	29.34	30.22
	12H	22.30	22.89	23.05	23.66	24.55	27.92	28.52	28.68	29.29	30.18
8H	4H	23.31	23.97	24.04	24.71	25.60	27.88	28.54	28.61	29.28	30.17
	6H	23.56	24.11	24.33	24.90	25.78	28.10	28.65	28.87	29.44	30.32
	8H	23.64	24.12	24.42	24.91	25.82	28.17	28.65	28.95	29.44	30.35
	12H	23.68	24.11	24.47	24.89	25.85	28.18	28.61	28.96	29.39	30.35
12H	4H	23.34	23.94	24.10	24.71	25.60	27.85	28.44	28.61	29.21	30.10
	6H	23.66	24.15	24.44	24.94	25.84	28.09	28.58	28.87	29.37	30.27
	8H	23.79	24.21	24.57	24.99	25.96	28.18	28.60	28.96	29.38	30.35