

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: P855434

Luminaire Tested: SQ2-FB-025U-125D-840-UNV-STD-W-4

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P855434
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-125D-840-UNV-STD-W-4
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE
DOWNLIGHT 1250 LUMENS PER FOOT
UPLIGHT 250 LUMENS PER FOOT
Light Source: -
Ballast/Driver: -

Summary

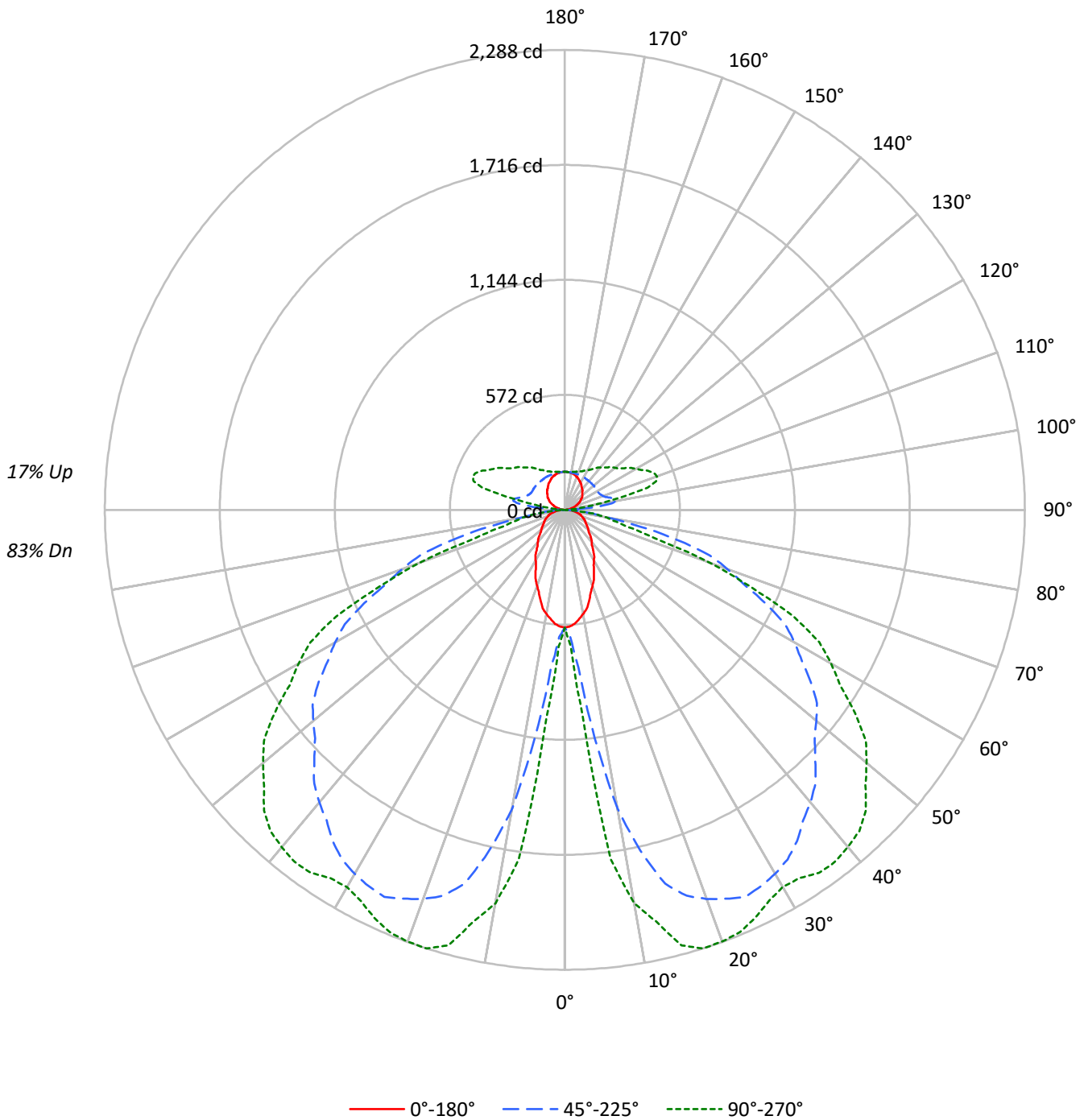
Lumens per Lamp: N/A
Luminaire Lumens: 6956.1 lumens
Efficiency: N/A
Efficacy: 122.9 lumens/watt
Spacing Criteria (0/90/45): 0.84 / 2.98 / 2.56
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: Semi-Direct

Input Watts (W): 56.6
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	115	115	115	115	110	110	110	110	102	102	102	94	94	94	87	87	87	87	87	87	83
1	105	100	96	92	101	96	93	89	89	86	83	82	80	78	76	74	73	76	74	73	69
2	95	87	80	74	91	84	77	72	77	72	68	72	68	64	66	63	60	66	63	60	57
3	86	76	68	61	82	73	66	60	68	61	56	63	58	53	58	54	50	58	54	50	47
4	79	67	58	51	75	64	56	50	59	53	47	55	50	45	51	46	43	51	46	43	40
5	72	59	50	43	69	57	49	42	53	46	40	49	43	38	46	41	36	46	41	36	34
6	66	53	44	37	63	51	42	36	47	40	35	44	38	33	41	36	32	41	36	32	29
7	61	47	39	32	58	46	38	32	43	36	30	40	34	29	37	32	28	37	32	28	25
8	56	43	34	28	54	41	33	28	39	32	27	36	30	26	34	28	24	34	28	24	22
9	52	39	31	25	50	38	30	25	35	29	24	33	27	23	31	26	22	31	26	22	20
10	49	36	28	23	47	35	27	22	32	26	21	30	25	20	29	23	20	29	23	20	18

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	9452	9452	9452
5°	9214	12772	16741
10°	8629	24733	32577
15°	7809	32179	37496
20°	6916	35398	39268
25°	6116	37857	39913
30°	5407	38988	40404
35°	4827	39665	43438
40°	4390	40042	46152
45°	4048	40231	48327
50°	3818	41003	49205
55°	3724	42069	49596
60°	3817	42625	49351
65°	3981	42044	47958
70°	4121	40655	36269
75°	4566	36519	20012
80°	4714	18847	18587
85°	4687	13042	7818

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 52.5°
 Luminance: 50045 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	98.1	1.4
10°-20°	447.7	6.4
20°-30°	787.7	11.3
30°-40°	1019.6	14.7
40°-50°	1124.5	16.2
50°-60°	1049.9	15.1
60°-70°	811.5	11.7
70°-80°	374.3	5.4
80°-90°	71.9	1.0
90°-100°	76.3	1.1
100°-110°	237.5	3.4
110°-120°	232.3	3.3
120°-130°	189.6	2.7
130°-140°	155.2	2.2
140°-150°	121.1	1.7
150°-160°	87.4	1.3
160°-170°	53.4	0.8
170°-180°	18.0	0.3
0°-30°	1333.5	19.2
0°-40°	2353.1	33.8
0°-60°	4527.5	65.1
0°-90°	5785.3	83.2
90°-120°	546.1	7.9
90°-150°	1012.0	14.5
90°-180°	1171.0	16.8
0°-180°	6956.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	585	585	585	585	585	
5°	568	651	788	961	1033	53
15°	467	921	1925	2155	2243	130
25°	343	1238	2125	2218	2240	158
35°	245	1194	2012	2083	2204	154
45°	177	915	1762	2023	2116	137
55°	132	545	1494	1718	1762	119
65°	104	308	1100	1233	1255	102
75°	73	189	585	315	321	75
85°	25	56	70	48	42	26
90°	0	1	4	4	4	2
95°	10	31	140	52	34	12
105°	42	59	234	446	426	44
115°	74	88	190	392	458	73
125°	103	114	188	308	361	91
135°	124	137	186	266	299	96
145°	145	156	186	230	250	91
155°	166	171	188	206	213	76
165°	182	183	189	194	197	51
175°	189	189	189	190	189	18
180°	189	189	189	189	189	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	585.4	585.4	585.4	585.4	585.4
2.5°	581.0	605.1	632.7	664.5	677.7
5°	568.5	651.1	788.0	961.3	1032.9
7.5°	546.6	714.4	1146.1	1609.8	1752.9
10°	526.3	760.2	1508.6	1910.0	1987.0
12.5°	503.8	821.4	1736.0	2018.1	2097.4
15°	467.2	921.2	1925.1	2155.1	2243.2
17.5°	429.5	1033.8	2012.9	2239.8	2287.7
20°	402.5	1112.5	2060.2	2255.1	2285.4
22.5°	377.7	1171.3	2094.0	2241.6	2274.2
25°	343.3	1237.8	2125.0	2218.3	2240.4
27.5°	310.1	1255.1	2111.5	2172.8	2194.2
30°	290.0	1250.4	2091.2	2136.9	2167.2
32.5°	271.9	1236.7	2061.9	2106.2	2171.7
35°	244.9	1194.3	2012.4	2082.7	2203.8
37.5°	221.8	1126.1	1947.0	2091.0	2207.7
40°	208.3	1075.2	1899.8	2090.6	2189.7
42.5°	194.7	1015.4	1845.8	2068.1	2167.2
45°	177.3	914.8	1761.9	2022.9	2116.5
47.5°	160.9	801.7	1684.2	1960.4	2028.7
50°	152.0	724.4	1632.4	1903.9	1958.9
52.5°	143.0	649.4	1580.6	1836.2	1886.9
55°	132.3	545.1	1494.5	1717.8	1761.9
57.5°	122.7	455.7	1396.6	1587.0	1622.8
60°	118.2	407.2	1320.0	1492.5	1528.3
62.5°	111.4	363.0	1234.4	1393.4	1426.9
65°	104.2	307.8	1100.5	1233.2	1255.3
67.5°	94.0	266.9	958.1	1039.3	998.0
70°	87.3	246.8	861.2	886.6	768.3
72.5°	82.7	224.8	755.4	688.4	464.4
75°	73.2	188.8	585.4	315.4	320.8
77.5°	59.7	146.0	385.0	242.2	247.1
80°	50.7	119.5	202.7	197.1	199.9
82.5°	41.6	92.9	139.6	145.1	141.2
85°	25.3	55.6	70.4	47.7	42.2
87.5°	9.0	20.3	12.0	12.0	12.0
90°	0.0	1.2	3.5	3.5	3.5
92.5°	3.7	12.9	44.2	14.6	11.8
95°	10.4	30.8	140.1	51.6	33.6
97.5°	19.0	40.0	231.9	144.4	91.0
100°	25.4	44.8	261.5	244.6	163.2
102.5°	31.9	50.2	256.0	349.4	274.3
105°	41.7	58.6	233.8	446.2	426.0
107.5°	51.4	67.2	212.5	453.7	476.2
110°	57.9	73.7	201.4	443.1	487.3



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	64.3	79.2	195.8	424.0	479.8
115°	74.1	87.6	189.8	391.6	458.4
117.5°	83.6	96.0	187.3	360.6	428.9
120°	89.2	101.6	186.3	342.9	408.6
122.5°	94.6	107.1	187.3	327.9	388.2
125°	103.0	114.3	187.5	307.9	361.0
127.5°	109.7	121.3	187.5	292.9	338.2
130°	113.4	125.9	187.5	284.5	325.3
132.5°	118.1	130.5	186.6	277.0	315.0
135°	123.9	137.4	186.3	265.8	298.6
137.5°	130.5	143.0	186.3	254.6	284.5
140°	134.3	146.7	186.3	247.2	274.3
142.5°	138.9	150.5	186.3	239.7	264.1
145°	144.6	155.9	186.3	229.6	250.0
147.5°	151.6	161.3	187.5	220.3	236.3
150°	156.3	164.2	187.5	215.6	228.0
152.5°	159.9	167.0	187.5	210.9	221.5
155°	165.5	171.2	187.5	206.2	212.9
157.5°	171.1	175.4	187.5	202.0	206.3
160°	174.8	178.2	187.5	199.2	202.5
162.5°	177.5	180.1	187.5	197.3	199.7
165°	181.7	182.9	188.7	194.5	196.7
167.5°	184.2	184.5	187.5	192.9	193.9
170°	185.2	186.3	187.5	191.0	192.2
172.5°	187.0	187.3	188.4	190.1	190.3
175°	188.7	188.7	188.7	189.7	188.7
177.5°	188.7	188.7	188.7	188.7	188.7
180°	188.7	188.7	188.7	188.7	188.7



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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	17.47	18.79	18.07	19.41	20.11	26.21	27.53	26.81	28.15	28.85
	3H	18.24	19.43	18.85	20.05	20.79	27.86	29.05	28.48	29.68	30.42
	4H	18.56	19.68	19.20	20.32	21.07	28.07	29.19	28.70	29.83	30.58
	6H	18.80	19.84	19.45	20.49	21.25	28.18	29.21	28.83	29.87	30.63
	8H	18.87	19.86	19.53	20.53	21.30	28.19	29.18	28.86	29.86	30.63
	12H	18.91	19.86	19.58	20.53	21.32	28.18	29.13	28.85	29.79	30.59
4H	2H	21.93	23.05	22.57	23.69	24.44	26.71	27.83	27.35	28.47	29.22
	3H	22.90	23.84	23.56	24.52	25.29	28.57	29.51	29.23	30.19	30.96
	4H	23.21	24.06	23.88	24.74	25.54	28.83	29.68	29.51	30.37	31.17
	6H	23.37	24.10	24.06	24.81	25.62	29.01	29.74	29.70	30.45	31.26
	8H	23.40	24.09	24.10	24.79	25.62	29.04	29.73	29.74	30.44	31.26
	12H	23.41	24.03	24.13	24.76	25.59	29.04	29.66	29.76	30.39	31.22
8H	4H	24.42	25.11	25.12	25.82	26.64	28.99	29.68	29.69	30.39	31.21
	6H	24.68	25.25	25.41	26.00	26.83	29.22	29.79	29.95	30.54	31.36
	8H	24.76	25.26	25.50	26.02	26.86	29.29	29.79	30.03	30.55	31.39
	12H	24.81	25.25	25.55	25.99	26.90	29.30	29.75	30.04	30.49	31.39
12H	4H	24.46	25.08	25.18	25.81	26.64	28.97	29.59	29.68	30.32	31.15
	6H	24.78	25.29	25.52	26.04	26.88	29.21	29.72	29.95	30.47	31.31
	8H	24.91	25.35	25.65	26.10	27.00	29.30	29.74	30.04	30.49	31.39