

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: P853829

Luminaire Tested: SQ2-FB-025U-075D-940-UNV-STD-W-4

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P853829
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-940-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

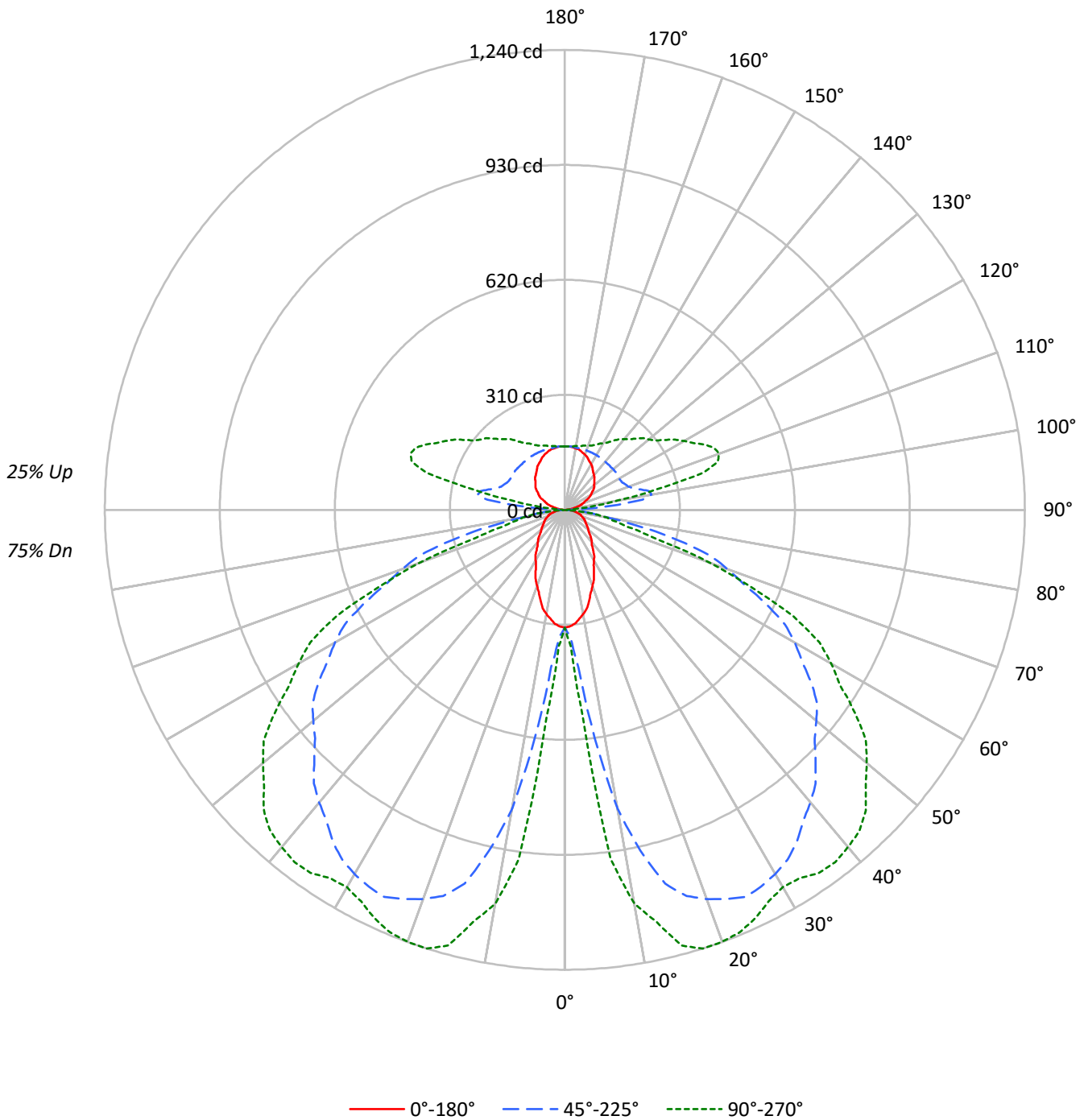
Lumens per Lamp: N/A
Luminaire Lumens: 4200.3 lumens
Efficiency: N/A
Efficacy: 123.2 lumens/watt
Spacing Criteria (0/90/45): 0.84 / 2.98 / 2.56
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: Semi-Direct

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°	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	1.3
10°-20°	242.7	5.8
20°-30°	427.1	10.2
30°-40°	552.8	13.2
40°-50°	609.7	14.5
50°-60°	569.2	13.6
60°-70°	440.0	10.5
70°-80°	202.9	4.8
80°-90°	39.2	0.9
90°-100°	69.4	1.7
100°-110°	215.7	5.1
110°-120°	211.0	5.0
120°-130°	172.3	4.1
130°-140°	140.9	3.4
140°-150°	110.0	2.6
150°-160°	79.4	1.9
160°-170°	48.5	1.2
170°-180°	16.4	0.4
0°-30°	723.0	17.2
0°-40°	1275.7	30.4
0°-60°	2454.6	58.4
0°-90°	3136.7	74.7
90°-120°	496.1	11.8
90°-150°	919.3	21.9
90°-180°	1064.0	25.3
0°-180°	4200.3	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°	0	1	3	3	3	1
95°	10	28	127	47	30	11
105°	38	53	212	405	387	40
115°	67	80	172	356	416	66
125°	94	104	170	280	328	83
135°	112	125	169	241	271	87
145°	131	142	169	209	227	83
155°	150	156	170	187	193	69
165°	165	166	171	177	179	46
175°	171	171	171	172	171	16
180°	171	171	171	171	171	

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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°	4.9	11.1	6.7	6.7	6.7
90°	0.0	1.0	3.2	3.2	3.2
92.5°	3.4	11.8	40.2	13.2	10.7
95°	9.5	28.0	127.2	46.9	30.5
97.5°	17.2	36.4	210.7	131.2	82.6
100°	23.1	40.6	237.6	222.3	148.2
102.5°	29.0	45.7	232.6	317.4	249.2
105°	37.8	53.3	212.4	405.4	386.9
107.5°	46.7	61.1	193.0	412.2	432.5
110°	52.6	67.0	182.9	402.5	442.6



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	58.5	72.0	177.9	385.1	435.9
115°	67.3	79.6	172.4	355.7	416.3
117.5°	75.9	87.2	170.1	327.5	389.6
120°	81.0	92.3	169.3	311.5	371.1
122.5°	86.0	97.3	170.1	297.9	352.6
125°	93.6	103.9	170.3	279.7	328.0
127.5°	99.7	110.2	170.3	266.1	307.2
130°	103.0	114.3	170.3	258.4	295.4
132.5°	107.2	118.5	169.5	251.6	286.2
135°	112.5	124.8	169.3	241.4	271.2
137.5°	118.6	129.9	169.3	231.3	258.4
140°	122.0	133.3	169.3	224.5	249.2
142.5°	126.2	136.6	169.3	217.7	239.9
145°	131.4	141.7	169.3	208.6	227.1
147.5°	137.7	146.6	170.3	200.1	214.7
150°	141.9	149.1	170.3	195.8	207.1
152.5°	145.3	151.7	170.3	191.6	201.2
155°	150.3	155.5	170.3	187.3	193.4
157.5°	155.4	159.3	170.3	183.4	187.4
160°	158.8	161.8	170.3	180.9	184.0
162.5°	161.3	163.5	170.3	179.2	181.5
165°	165.1	166.1	171.4	176.7	178.7
167.5°	167.4	167.6	170.3	175.2	176.2
170°	168.2	169.2	170.3	173.5	174.5
172.5°	169.9	170.1	171.2	172.6	172.8
175°	171.4	171.4	171.4	172.4	171.4
177.5°	171.4	171.4	171.4	171.4	171.4
180°	171.4	171.4	171.4	171.4	171.4



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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	14.74	15.92	15.44	16.65	17.52	23.47	24.66	24.18	25.39	26.25
	3H	15.49	16.56	16.21	17.30	18.19	25.12	26.18	25.84	26.92	27.82
	4H	15.81	16.81	16.54	17.56	18.47	25.32	26.32	26.05	27.07	27.98
	6H	16.04	16.97	16.79	17.73	18.65	25.42	26.35	26.17	27.11	28.03
	8H	16.11	16.99	16.87	17.77	18.70	25.43	26.32	26.19	27.10	28.02
	12H	16.15	16.99	16.92	17.77	18.72	25.41	26.26	26.18	27.03	27.99
4H	2H	19.17	20.18	19.92	20.93	21.84	23.96	24.96	24.70	25.71	26.62
	3H	20.14	20.98	20.89	21.76	22.69	25.81	26.65	26.57	27.44	28.37
	4H	20.44	21.20	21.21	21.98	22.94	26.06	26.83	26.84	27.61	28.57
	6H	20.59	21.25	21.38	22.06	23.02	26.23	26.89	27.02	27.70	28.66
	8H	20.62	21.23	21.41	22.04	23.02	26.26	26.88	27.06	27.69	28.66
	12H	20.62	21.18	21.44	22.01	22.99	26.25	26.81	27.07	27.64	28.62
8H	4H	21.64	22.25	22.43	23.06	24.04	26.21	26.83	27.00	27.63	28.61
	6H	21.89	22.40	22.71	23.25	24.23	26.43	26.94	27.25	27.79	28.77
	8H	21.97	22.42	22.80	23.27	24.26	26.50	26.95	27.33	27.80	28.79
	12H	22.01	22.41	22.85	23.24	24.30	26.51	26.90	27.34	27.74	28.79
12H	4H	21.67	22.23	22.49	23.06	24.04	26.18	26.73	26.99	27.56	28.54
	6H	21.99	22.44	22.82	23.29	24.28	26.42	26.87	27.25	27.72	28.71
	8H	22.11	22.51	22.95	23.35	24.40	26.50	26.90	27.34	27.74	28.79