

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: P854381

Luminaire Tested: SQ2-WBM-100U-075D-940-UNV-STD-W-4

Issue Date: 7/12/2024

**Test Information**

Test Method: LM-79-2019  
Report Number: P854381  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-12, G3-2104-222-6)  
Test Lab: INNOVATION CENTER  
Issue Date: 7/12/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ2-WBM-100U-075D-940-UNV-STD-W-4  
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE  
DOWNLIGHT 750 LUMENS PER FOOT  
UPLIGHT 1000 LUMENS PER FOOT  
Light Source: -  
Ballast/Driver: -

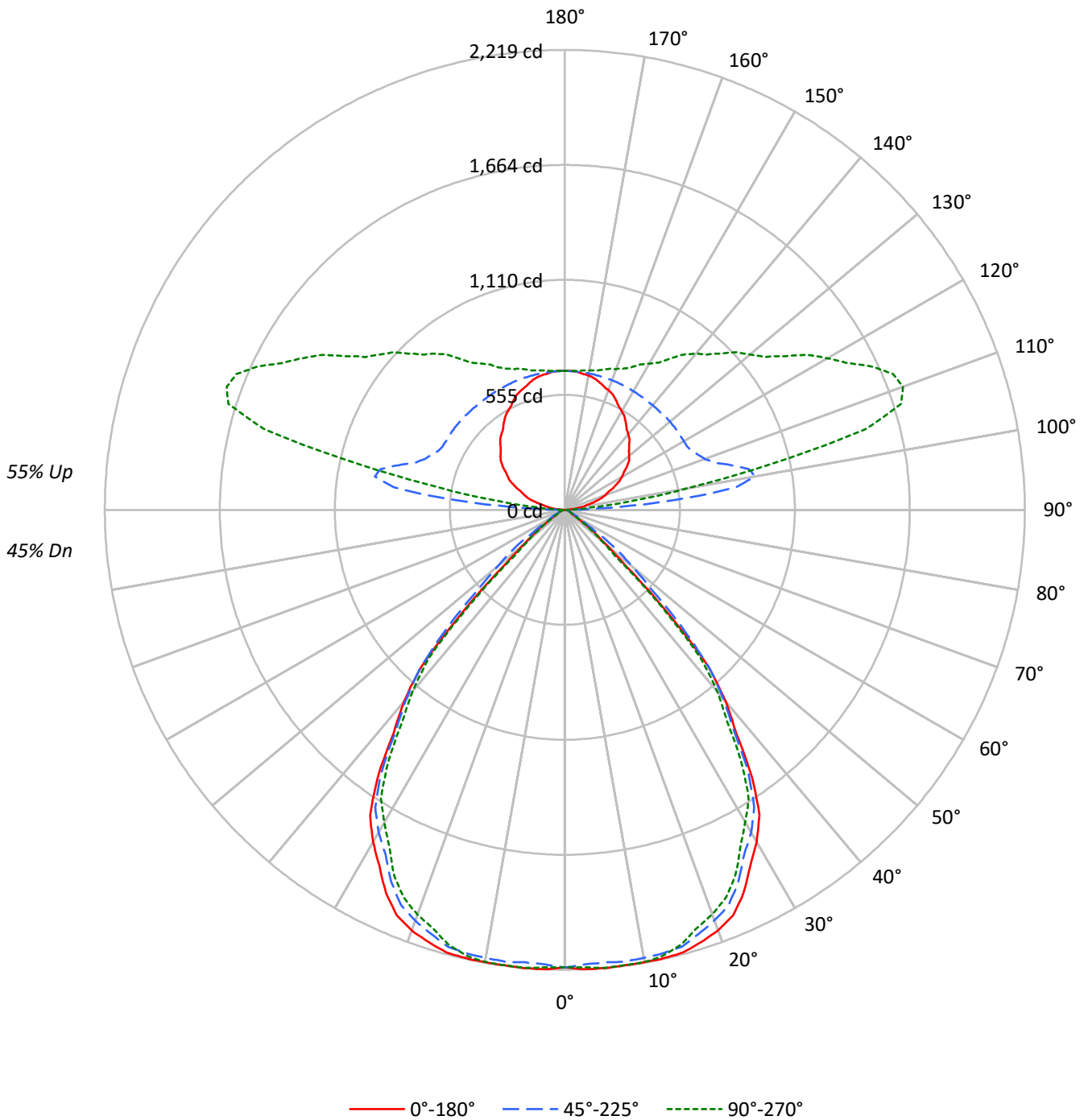
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 7627.9 lumens  
Efficiency: N/A  
Efficacy: 126.7 lumens/watt  
Spacing Criteria (0/90/45): 1.23 / 1.18 / 1.17  
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')  
CIE Type: General Diffuse  
  
Input Watts (W): 60.2  
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	106	106	106	106	97	97	97	97	81	81	81	66	66	66	52	52	52	45				
1	98	95	91	88	90	87	84	82	73	71	69	60	59	58	48	48	47	41				
2	91	85	79	75	83	78	74	70	66	63	60	55	53	51	45	43	42	37				
3	84	76	70	65	77	70	65	61	60	56	53	50	48	45	41	39	38	34				
4	78	68	62	56	72	64	58	53	54	50	47	46	43	40	38	36	34	31				
5	72	62	55	50	66	58	51	47	50	45	41	42	39	36	35	33	31	28				
6	67	56	49	44	62	53	46	42	45	41	37	39	35	33	33	30	28	25				
7	62	51	44	39	58	48	42	37	42	37	33	36	32	30	30	28	26	23				
8	58	47	40	35	54	44	38	33	38	34	30	33	29	27	28	26	24	21				
9	54	43	36	32	50	41	34	30	35	31	27	31	27	25	26	24	22	20				
10	51	40	33	29	47	37	32	28	33	28	25	29	25	22	24	22	20	18				

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

	0°	45°	90°
0°	35645	35645	35645
5°	35971	35525	35953
10°	36334	35987	36316
15°	36939	36461	36284
20°	37115	36242	35697
25°	36351	35277	34693
30°	34491	33504	32438
35°	31020	30374	29268
40°	25429	25050	24091
45°	15901	18100	14936
50°	6222	10555	5689
55°	3068	4915	3040
60°	1437	2357	1298
65°	1295	1375	1215
70°	1251	1298	1199
75°	1254	1254	1123
80°	1181	1181	1079
85°	1186	982	982

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 45°  
 Vertical Angle: 45°  
 Luminance: 18100 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	211.1	2.8
10°-20°	617.2	8.1
20°-30°	912.6	12.0
30°-40°	944.2	12.4
40°-50°	568.0	7.4
50°-60°	135.9	1.8
60°-70°	37.1	0.5
70°-80°	20.8	0.3
80°-90°	7.8	0.1
90°-100°	280.0	3.7
100°-110°	847.0	11.1
110°-120°	826.8	10.8
120°-130°	675.6	8.9
130°-140°	551.5	7.2
140°-150°	429.3	5.6
150°-160°	309.5	4.1
160°-170°	189.5	2.5
170°-180°	64.0	0.8
0°-30°	1740.8	22.8
0°-40°	2685.1	35.2
0°-60°	3389.0	44.4
0°-90°	3454.6	45.3
90°-120°	1953.8	25.6
90°-150°	3610.3	47.3
90°-180°	4173.0	54.7
0°-180°	7627.9	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2208	2208	2208	2208	2208	
5°	2219	2212	2192	2221	2218	212
15°	2210	2226	2181	2181	2171	623
25°	2040	2057	1980	1959	1947	933
35°	1574	1572	1541	1506	1485	966
45°	696	791	793	753	654	539
55°	109	122	175	116	108	109
65°	34	35	36	34	32	34
75°	20	20	20	19	18	21
85°	6	6	5	5	5	6
90°	0	2	13	7	6	2
95°	35	110	528	195	123	41
105°	147	207	832	1579	1501	155
115°	262	312	673	1392	1635	259
125°	366	406	663	1099	1294	325
135°	439	485	659	948	1066	340
145°	513	551	659	815	892	321
155°	584	604	663	731	759	269
165°	639	646	666	692	700	180
175°	668	668	670	675	673	63
180°	670	670	670	670	670	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2207.7	2207.7	2207.7	2207.7	2207.7
2.5°	2218.7	2212.9	2195.0	2213.6	2209.4
5°	2219.4	2212.1	2191.9	2221.4	2218.3
7.5°	2217.0	2213.9	2198.4	2220.7	2216.0
10°	2216.2	2217.2	2195.0	2218.2	2215.1
12.5°	2215.4	2223.8	2191.6	2209.7	2202.4
15°	2209.9	2226.4	2181.3	2181.0	2170.7
17.5°	2186.4	2206.0	2145.7	2129.1	2116.5
20°	2160.1	2179.8	2109.3	2082.7	2077.6
22.5°	2118.6	2139.9	2064.4	2035.2	2026.8
25°	2040.5	2057.1	1980.2	1958.8	1947.4
27.5°	1936.4	1945.5	1873.3	1848.8	1833.1
30°	1850.0	1854.1	1797.1	1764.8	1739.9
32.5°	1747.6	1751.7	1701.4	1670.9	1651.0
35°	1573.8	1571.7	1541.0	1505.6	1484.9
37.5°	1356.4	1359.3	1335.0	1307.0	1286.1
40°	1206.5	1208.6	1188.5	1148.2	1143.0
42.5°	1023.6	1054.7	1027.7	996.2	972.0
45°	696.4	790.6	792.7	753.4	654.1
47.5°	393.3	500.5	562.4	449.6	328.9
50°	247.7	320.1	420.2	266.8	226.5
52.5°	175.7	212.5	316.9	187.7	166.4
55°	109.0	122.5	174.6	116.2	108.0
57.5°	64.8	78.6	99.3	78.7	65.6
60°	44.5	55.8	73.0	51.6	40.2
62.5°	38.5	43.3	57.8	40.8	36.8
65°	33.9	34.9	36.0	33.8	31.8
67.5°	29.8	30.9	30.1	29.8	27.9
70°	26.5	27.5	27.5	26.4	25.4
72.5°	23.9	25.0	24.1	23.9	22.0
75°	20.1	20.1	20.1	19.0	18.0
77.5°	15.2	16.3	15.2	15.2	14.2
80°	12.7	13.7	12.7	12.7	11.6
82.5°	10.2	10.4	10.2	10.1	9.1
85°	6.4	6.4	5.3	5.3	5.3
87.5°	1.7	2.9	4.2	3.2	3.0
90°	0.0	2.1	12.6	7.3	6.3
92.5°	11.8	47.6	171.0	56.7	40.8
95°	34.7	109.9	528.4	195.2	123.2
97.5°	67.2	139.8	832.9	551.1	335.6
100°	87.4	158.4	930.6	899.6	604.2
102.5°	110.1	178.7	910.3	1261.8	1005.9
105°	147.4	207.1	831.6	1579.3	1501.1
107.5°	182.7	239.8	755.8	1610.7	1701.3
110°	206.3	260.9	717.9	1571.2	1735.8



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	229.1	282.0	695.2	1504.8	1713.1
115°	262.1	312.5	672.7	1391.9	1634.8
117.5°	295.0	342.7	664.7	1286.1	1534.8
120°	316.9	362.1	662.1	1224.4	1463.2
122.5°	337.1	379.9	662.1	1170.1	1390.8
125°	366.3	406.5	663.2	1099.2	1293.7
127.5°	390.1	431.7	662.1	1045.7	1211.6
130°	405.3	448.5	662.1	1015.0	1165.3
132.5°	418.8	462.8	661.3	987.0	1125.7
135°	439.0	485.3	659.0	948.0	1066.3
137.5°	461.5	505.5	659.0	906.3	1016.0
140°	475.8	519.0	659.0	879.2	983.2
142.5°	490.1	531.7	658.1	854.5	945.3
145°	512.6	550.7	659.0	815.4	891.6
147.5°	535.2	567.5	660.2	783.2	841.7
150°	549.5	579.3	661.1	765.4	814.8
152.5°	563.0	589.5	661.9	750.0	790.3
155°	584.2	603.8	663.2	731.2	759.0
157.5°	602.8	618.6	664.4	717.3	736.7
160°	613.7	627.1	665.3	708.8	723.2
162.5°	624.7	634.7	666.1	701.1	713.1
165°	639.0	646.2	666.3	691.8	700.0
167.5°	651.2	654.9	667.6	684.5	688.0
170°	657.9	660.0	668.4	681.1	682.1
172.5°	662.1	663.4	668.4	677.7	677.9
175°	668.4	668.4	669.5	674.7	672.7
177.5°	671.4	670.6	669.7	672.2	670.5
180°	670.5	670.5	670.5	670.5	670.5

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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	4.85	5.54	5.88	6.56	7.91	4.50	5.20	5.53	6.21	7.56
	3H	5.35	5.96	6.38	6.99	8.36	5.01	5.63	6.05	6.65	8.02
	4H	5.61	6.19	6.66	7.22	8.59	5.25	5.83	6.30	6.86	8.24
	6H	5.84	6.37	6.89	7.40	8.79	5.45	5.99	6.51	7.02	8.41
	8H	5.91	6.42	6.98	7.47	8.85	5.52	6.02	6.58	7.07	8.45
	12H	5.96	6.44	7.03	7.48	8.89	5.55	6.03	6.61	7.07	8.47
4H	2H	4.85	5.43	5.91	6.46	7.84	4.54	5.12	5.59	6.14	7.52
	3H	5.56	6.04	6.62	7.09	8.48	5.26	5.74	6.32	6.79	8.18
	4H	5.96	6.40	7.02	7.44	8.85	5.63	6.07	6.70	7.12	8.53
	6H	6.34	6.71	7.41	7.78	9.19	5.98	6.35	7.05	7.42	8.83
	8H	6.48	6.83	7.55	7.89	9.31	6.10	6.45	7.17	7.51	8.93
	12H	6.57	6.88	7.66	7.96	9.38	6.16	6.47	7.25	7.55	8.97
8H	4H	6.04	6.39	7.12	7.45	8.87	5.74	6.09	6.81	7.15	8.57
	6H	6.55	6.83	7.64	7.94	9.36	6.21	6.50	7.31	7.60	9.02
	8H	6.78	7.03	7.88	8.11	9.55	6.41	6.66	7.51	7.75	9.19
	12H	6.95	7.17	8.06	8.25	9.73	6.55	6.77	7.65	7.85	9.33
12H	4H	6.01	6.33	7.10	7.40	8.82	5.72	6.03	6.81	7.11	8.53
	6H	6.57	6.82	7.67	7.90	9.34	6.24	6.49	7.34	7.58	9.02
	8H	6.82	7.04	7.92	8.12	9.60	6.46	6.69	7.57	7.77	9.24