

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: P854345

Luminaire Tested: SQ2-WBM-050U-075D-940-UNV-STD-W-4

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P854345
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-10, G3-2104-222-6)
Test Lab: INNOVATION CENTER
Issue Date: 7/12/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ2-WBM-050U-075D-940-UNV-STD-W-4
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE
DOWNLIGHT 750 LUMENS PER FOOT
UPLIGHT 500 LUMENS PER FOOT
Light Source: -
Ballast/Driver: -

Summary

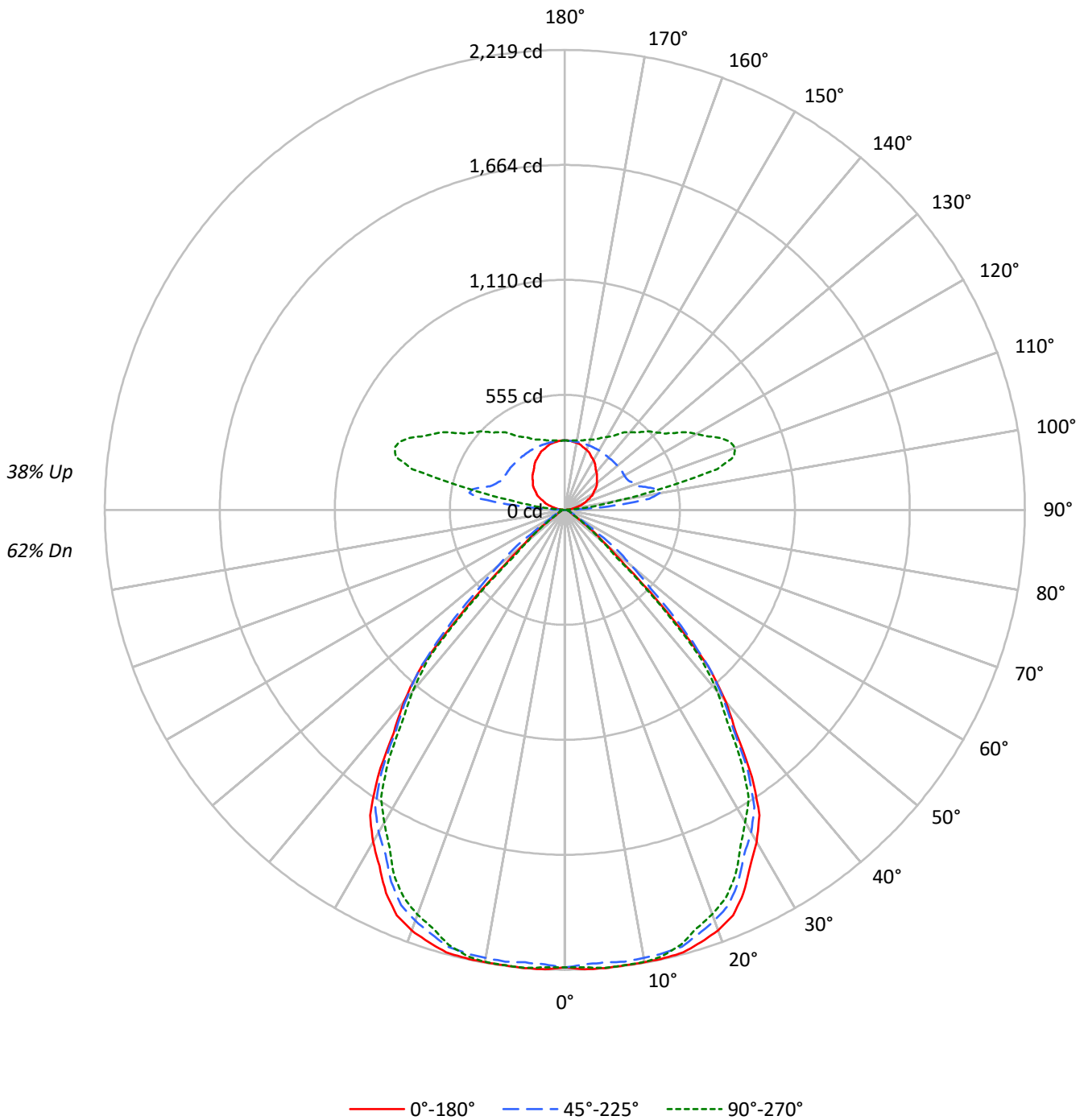
Lumens per Lamp: N/A
Luminaire Lumens: 5533.0 lumens
Efficiency: N/A
Efficacy: 130.5 lumens/watt
Spacing Criteria (0/90/45): 1.23 / 1.18 / 1.17
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: Semi-Direct

Input Watts (W): 42.4
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

TEST NUMBER: P854345

CATALOG NUMBER: SQ2-WBM-050U-075D-940-UNV-STD-W-4

Luminous Intensity Polar Plot





TEST NUMBER: P854345

CATALOG NUMBER: SQ2-WBM-050U-075D-940-UNV-STD-W-4

COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	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	50	30	10	0														
RCR																																						
0	110	110	110	110	103	103	103	103	90	90	90	78	78	78	68	68	68	62																				
1	103	99	96	93	96	93	91	88	82	81	79	72	71	70	63	62	61	57																				
2	96	89	84	80	90	84	80	76	75	72	69	66	64	62	59	57	55	52																				
3	89	81	75	70	83	77	71	67	69	64	61	61	58	55	54	52	50	47																				
4	83	73	67	61	78	70	64	59	63	58	54	56	53	50	50	47	45	42																				
5	77	67	60	55	72	64	57	53	57	52	49	52	48	45	46	43	41	38																				
6	72	61	54	49	68	58	52	47	53	48	44	48	44	41	43	40	37	35																				
7	67	56	49	44	63	53	47	42	49	43	40	44	40	37	40	37	34	32																				
8	63	51	44	40	59	49	43	38	45	40	36	41	37	34	37	34	31	29																				
9	59	48	41	36	55	46	39	35	42	37	33	38	34	31	35	31	29	27																				
10	55	44	37	33	52	42	36	32	39	34	30	36	31	28	32	29	27	25																				

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



TEST NUMBER: P854345

CATALOG NUMBER: SQ2-WBM-050U-075D-940-UNV-STD-W-4

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	211.1	3.8
10°-20°	617.2	11.2
20°-30°	912.6	16.5
30°-40°	944.2	17.1
40°-50°	568.0	10.3
50°-60°	135.9	2.5
60°-70°	37.1	0.7
70°-80°	20.8	0.4
80°-90°	7.0	0.1
90°-100°	133.3	2.4
100°-110°	423.0	7.6
110°-120°	414.7	7.5
120°-130°	337.5	6.1
130°-140°	275.2	5.0
140°-150°	214.5	3.9
150°-160°	154.6	2.8
160°-170°	94.4	1.7
170°-180°	31.9	0.6
0°-30°	1740.8	31.5
0°-40°	2685.1	48.5
0°-60°	3389.0	61.3
0°-90°	3453.9	62.4
90°-120°	971.1	17.6
90°-150°	1798.2	32.5
90°-180°	2079.0	37.6
0°-180°	5533.0	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	1	3	3	3	1
95°	18	54	242	90	58	21
105°	74	104	417	794	761	78
115°	132	156	337	700	823	130
125°	182	204	332	549	646	162
135°	220	242	330	472	532	170
145°	257	276	330	407	443	161
155°	293	303	331	364	378	135
165°	319	322	332	344	347	90
175°	334	333	334	336	335	32
180°	335	335	335	335	335	



TEST NUMBER: P854345

CATALOG NUMBER: SQ2-WBM-050U-075D-940-UNV-STD-W-4

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	2.7	2.3	2.3	2.3
90°	0.0	1.0	3.2	3.2	3.2
92.5°	5.9	23.4	74.8	24.9	17.5
95°	17.9	53.9	242.2	89.8	57.9
97.5°	33.3	69.9	410.2	256.3	157.3
100°	44.2	79.2	467.5	426.2	276.9
102.5°	56.0	89.4	457.4	625.8	479.0
105°	73.7	103.6	416.9	794.2	761.2
107.5°	91.4	119.0	378.4	811.7	856.2
110°	103.2	129.9	359.0	791.5	873.9



TEST NUMBER: P854345

CATALOG NUMBER: SQ2-WBM-050U-075D-940-UNV-STD-W-4

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	115.0	140.1	348.1	756.6	861.2
115°	131.6	156.3	336.9	699.8	823.3
117.5°	147.8	171.3	332.5	645.1	769.6
120°	157.9	180.6	331.6	611.3	731.7
122.5°	168.0	189.9	331.6	584.1	696.4
125°	182.1	203.8	331.6	548.7	646.4
127.5°	194.6	215.4	331.6	521.2	604.5
130°	202.1	223.8	331.6	505.0	580.1
132.5°	209.7	231.3	330.8	492.2	559.9
135°	220.0	241.7	329.5	472.0	531.7
137.5°	230.2	252.8	329.3	452.7	506.0
140°	236.9	259.5	328.5	439.1	487.5
142.5°	245.3	267.1	329.3	425.5	470.6
145°	256.9	276.5	329.5	407.2	443.2
147.5°	268.5	285.2	329.8	391.1	420.5
150°	276.9	290.3	330.6	381.7	405.3
152.5°	283.6	295.4	330.6	374.0	393.6
155°	292.7	303.0	330.6	363.6	378.0
157.5°	302.4	309.4	331.6	357.1	367.0
160°	307.4	313.6	331.6	352.9	361.1
162.5°	312.5	317.0	331.6	349.5	355.2
165°	319.0	322.1	331.6	344.4	347.4
167.5°	325.1	325.9	332.7	340.8	343.4
170°	328.5	328.5	332.7	339.0	340.1
172.5°	330.2	331.0	332.7	337.3	337.5
175°	333.8	332.7	333.8	335.8	334.8
177.5°	334.8	334.0	334.0	335.6	334.0
180°	334.8	334.8	334.8	334.8	334.8

TEST NUMBER: P854345

CATALOG NUMBER: SQ2-WBM-050U-075D-940-UNV-STD-W-4

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	6.46	7.25	7.34	8.12	9.22	6.12	6.91	6.99	7.78	8.87
	3H	6.96	7.66	7.85	8.55	9.67	6.63	7.33	7.52	8.21	9.33
	4H	7.23	7.89	8.14	8.78	9.91	6.87	7.53	7.78	8.42	9.55
	6H	7.46	8.06	8.38	8.96	10.10	7.08	7.68	7.99	8.58	9.72
	8H	7.54	8.11	8.46	9.02	10.17	7.14	7.71	8.07	8.63	9.77
	12H	7.59	8.13	8.52	9.04	10.20	7.18	7.72	8.10	8.62	9.79
4H	2H	6.47	7.13	7.38	8.02	9.15	6.16	6.81	7.07	7.70	8.84
	3H	7.19	7.73	8.11	8.65	9.79	6.89	7.42	7.80	8.35	9.49
	4H	7.59	8.08	8.52	8.99	10.17	7.26	7.75	8.19	8.67	9.84
	6H	7.97	8.38	8.91	9.32	10.50	7.61	8.03	8.55	8.97	10.14
	8H	8.11	8.50	9.05	9.43	10.62	7.73	8.12	8.67	9.05	10.24
	12H	8.20	8.55	9.16	9.50	10.69	7.80	8.14	8.75	9.10	10.28
8H	4H	7.67	8.06	8.62	9.00	10.18	7.37	7.76	8.31	8.69	9.88
	6H	8.18	8.50	9.15	9.48	10.66	7.84	8.16	8.81	9.14	10.33
	8H	8.41	8.69	9.38	9.65	10.86	8.04	8.32	9.02	9.29	10.49
	12H	8.59	8.83	9.56	9.79	11.05	8.18	8.43	9.15	9.38	10.64
12H	4H	7.65	7.99	8.61	8.95	10.14	7.35	7.70	8.31	8.65	9.84
	6H	8.20	8.48	9.17	9.45	10.65	7.87	8.15	8.85	9.12	10.32
	8H	8.45	8.70	9.43	9.66	10.91	8.10	8.34	9.07	9.30	10.56