

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: P854309

Luminaire Tested: SQ2-PW1-125U-075D-940-UNV-STD-W-4

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P854309
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-13, G2-2308-131-8)
Test Lab: INNOVATION CENTER
Issue Date: 7/12/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ2-PW1-125U-075D-940-UNV-STD-W-4
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE
DOWNLIGHT 750 LUMENS PER FOOT
UPLIGHT 1250 LUMENS PER FOOT
Light Source: -
Ballast/Driver: -

Summary

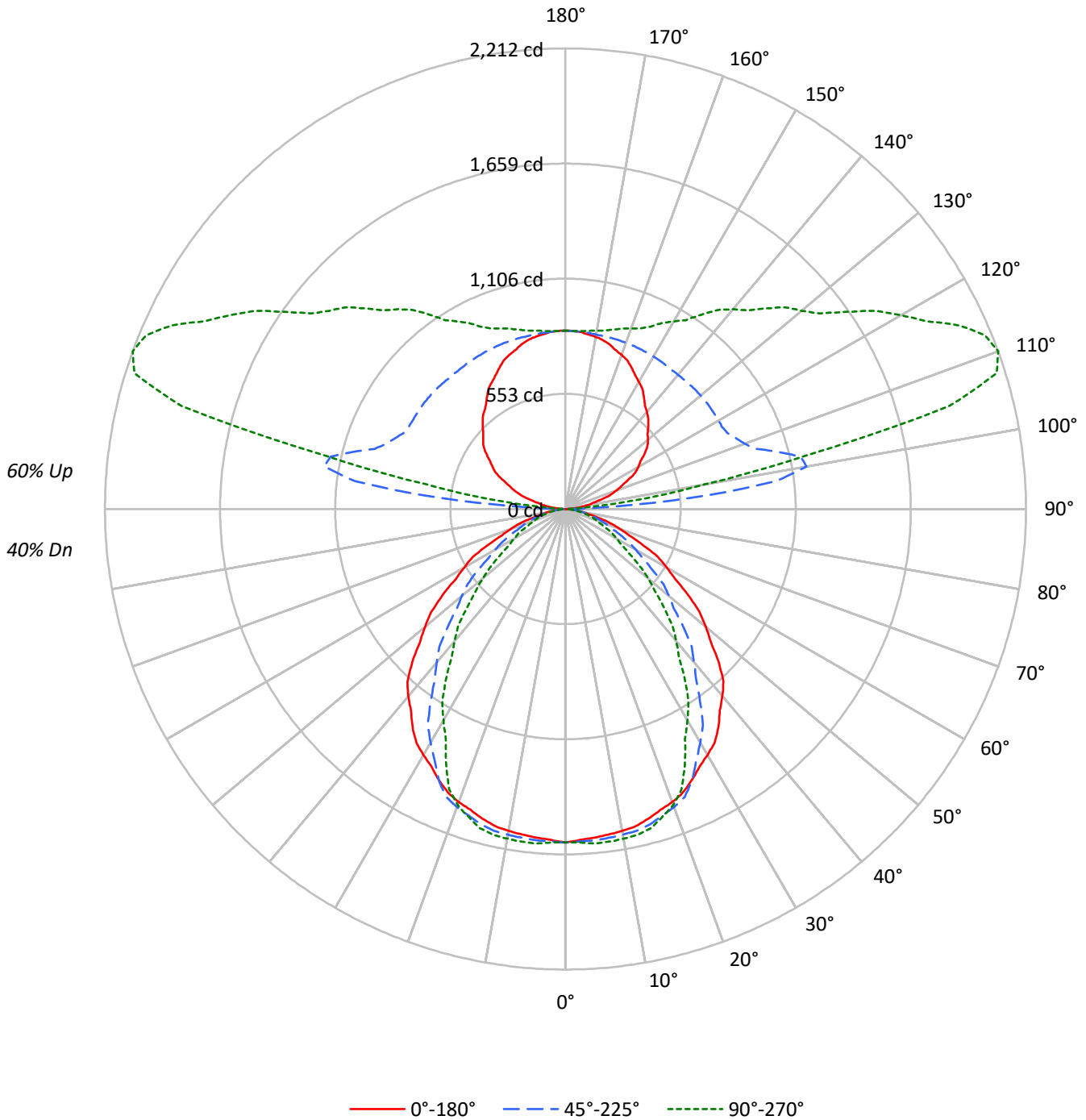
Lumens per Lamp: N/A
Luminaire Lumens: 8837.0 lumens
Efficiency: N/A
Efficacy: 125.2 lumens/watt
Spacing Criteria (0/90/45): 1.27 / 1.11 / 1.22
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: General Diffuse

Input Watts (W): 70.6
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	105	105	105	105	95	95	95	95	78	78	78	62	62	62	47	47	47	40				
1	96	92	88	85	87	84	81	78	69	67	65	55	54	52	42	42	41	35				
2	88	81	75	70	80	74	69	65	61	57	54	49	47	44	38	36	35	30				
3	80	71	64	59	73	65	59	55	54	50	46	44	41	38	34	32	30	26				
4	74	63	56	50	67	58	52	47	48	44	40	39	36	33	31	28	26	23				
5	68	57	49	43	62	52	45	40	43	38	34	35	32	29	28	25	23	20				
6	62	51	43	38	57	47	40	35	39	34	30	32	28	25	25	23	21	18				
7	58	46	38	33	53	42	36	31	36	30	27	29	25	23	23	21	19	16				
8	54	42	34	29	49	39	32	27	33	27	24	27	23	20	21	19	17	14				
9	50	38	31	26	46	35	29	24	30	25	21	25	21	18	20	17	15	13				
10	47	35	28	23	43	32	26	22	27	23	19	23	19	17	18	16	14	12				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	25869	25869	25869
5°	25695	25893	26141
10°	25743	26043	26368
15°	25737	26220	26527
20°	25747	26192	26008
25°	25607	25634	24166
30°	25434	24153	21848
35°	25233	22227	19730
40°	24732	20261	17431
45°	23763	18224	15225
50°	22117	16289	13031
55°	20231	14390	10567
60°	18132	12516	9116
65°	15855	10785	8103
70°	12968	9578	7345
75°	10087	8284	6756
80°	7522	7094	5960
85°	5094	5372	3390

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 23763 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	152.6	1.7
10°-20°	442.0	5.0
20°-30°	650.5	7.4
30°-40°	711.2	8.0
40°-50°	638.0	7.2
50°-60°	476.0	5.4
60°-70°	300.8	3.4
70°-80°	149.0	1.7
80°-90°	35.8	0.4
90°-100°	327.4	3.7
100°-110°	1066.0	12.1
110°-120°	1054.5	11.9
120°-130°	861.7	9.8
130°-140°	704.3	8.0
140°-150°	548.6	6.2
150°-160°	395.4	4.5
160°-170°	241.7	2.7
170°-180°	81.5	0.9
0°-30°	1245.1	14.1
0°-40°	1956.4	22.1
0°-60°	3070.4	34.7
0°-90°	3556.0	40.2
90°-120°	2447.9	27.7
90°-150°	4562.4	51.6
90°-180°	5281.0	59.8
0°-180°	8837.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1602	1602	1602	1602	1602	
5°	1585	1611	1598	1600	1613	151
15°	1540	1570	1569	1580	1587	435
25°	1437	1469	1439	1379	1356	662
35°	1280	1267	1128	1029	1001	798
45°	1041	957	798	698	667	798
55°	719	650	511	401	375	642
65°	415	381	282	227	212	411
75°	162	174	133	111	108	178
85°	28	35	29	20	18	35
90°	0	3	7	6	6	3
95°	44	135	600	214	132	51
105°	181	261	1056	2017	1910	193
115°	335	400	860	1773	2086	331
125°	465	519	849	1400	1650	414
135°	562	621	844	1208	1362	434
145°	657	705	842	1040	1139	411
155°	750	774	848	932	966	345
165°	818	825	850	881	892	230
175°	853	853	853	859	857	81
180°	856	856	856	856	856	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1602.2	1602.2	1602.2	1602.2	1602.2
2.5°	1591.2	1611.5	1598.6	1599.9	1603.4
5°	1585.4	1610.8	1597.6	1599.5	1612.9
7.5°	1577.5	1603.2	1593.4	1598.8	1612.0
10°	1570.2	1597.0	1588.5	1596.4	1608.3
12.5°	1560.4	1588.5	1582.4	1591.5	1603.4
15°	1539.7	1569.5	1568.6	1579.5	1587.0
17.5°	1515.5	1545.4	1543.9	1546.8	1550.3
20°	1498.5	1528.3	1524.4	1513.7	1513.7
22.5°	1474.0	1506.3	1496.3	1467.1	1457.6
25°	1437.4	1468.7	1438.9	1378.9	1356.5
27.5°	1394.7	1420.1	1360.2	1275.0	1243.9
30°	1364.2	1383.6	1295.5	1201.7	1171.9
32.5°	1332.4	1339.9	1229.6	1132.1	1099.9
35°	1280.2	1266.8	1127.7	1029.4	1001.0
37.5°	1218.6	1178.6	1029.7	926.7	895.4
40°	1173.4	1116.7	961.3	858.4	827.0
42.5°	1123.4	1052.4	896.6	793.7	761.1
45°	1040.7	957.1	798.1	698.2	666.8
47.5°	947.6	864.6	705.9	609.1	582.3
50°	880.5	799.9	648.5	551.6	518.8
52.5°	812.1	739.9	592.4	492.8	448.0
55°	718.7	650.1	511.2	400.7	375.4
57.5°	622.6	563.2	437.6	337.4	316.5
60°	561.5	509.3	387.6	303.2	282.3
62.5°	502.9	456.7	338.8	271.5	254.2
65°	415.0	380.7	282.3	227.0	212.1
67.5°	329.6	310.5	234.7	186.2	176.4
70°	274.7	268.7	202.9	163.1	155.6
72.5°	227.1	229.4	172.4	141.2	136.1
75°	161.7	173.7	132.8	111.3	108.3
77.5°	110.2	128.1	98.3	82.3	80.0
80°	80.9	98.8	76.3	64.1	64.1
82.5°	56.5	70.8	54.3	48.2	48.2
85°	27.5	34.9	29.0	19.8	18.3
87.5°	7.3	11.5	6.4	4.9	4.9
90°	0.0	3.1	7.4	6.3	6.3
92.5°	15.2	54.5	174.1	57.4	44.2
95°	44.2	134.8	600.1	214.0	131.6
97.5°	83.2	175.4	1018.5	620.3	378.6
100°	108.4	199.0	1176.0	1048.7	680.1
102.5°	137.1	224.4	1156.6	1551.4	1179.6
105°	181.1	261.4	1056.0	2016.9	1909.8
107.5°	228.7	304.2	960.4	2057.3	2170.7
110°	263.2	332.2	914.9	2007.1	2212.0



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	291.8	360.0	886.3	1916.7	2180.8
115°	334.8	399.7	860.2	1772.7	2085.6
117.5°	379.0	437.5	850.1	1640.9	1952.4
120°	404.3	461.9	847.5	1559.8	1861.4
122.5°	428.7	485.5	848.4	1489.4	1770.4
125°	465.3	518.9	848.6	1399.6	1649.8
127.5°	496.7	551.5	848.4	1332.4	1540.9
130°	516.9	572.5	847.5	1293.9	1480.3
132.5°	534.6	592.7	846.7	1258.3	1433.1
135°	562.2	620.9	844.4	1207.9	1362.4
137.5°	589.2	648.3	842.0	1156.8	1293.9
140°	608.5	665.2	841.2	1122.1	1251.8
142.5°	627.1	681.2	841.2	1088.9	1204.6
145°	657.0	705.3	842.3	1040.3	1139.2
147.5°	686.0	728.0	843.7	999.0	1075.4
150°	705.4	742.5	845.4	974.3	1039.1
152.5°	724.8	755.2	846.3	955.5	1007.1
155°	749.6	774.3	847.5	931.5	966.5
157.5°	773.2	790.9	848.8	913.8	938.3
160°	787.5	801.9	849.6	902.7	922.3
162.5°	800.1	811.3	849.6	893.3	908.0
165°	818.0	825.3	849.6	881.4	891.7
167.5°	830.7	835.2	849.8	872.5	877.8
170°	839.1	841.2	850.7	866.5	868.6
172.5°	845.0	846.2	852.4	863.1	862.7
175°	852.8	852.8	852.8	859.1	857.0
177.5°	855.9	855.1	854.3	858.4	855.1
180°	855.9	855.9	855.9	855.9	855.9



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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	17.37	18.12	18.41	19.17	20.57	13.86	14.61	14.90	15.65	17.06
	3H	18.68	19.36	19.74	20.41	21.84	15.05	15.72	16.11	16.78	18.20
	4H	19.05	19.69	20.12	20.74	22.18	15.50	16.13	16.56	17.19	18.62
	6H	19.25	19.84	20.33	20.89	22.34	15.81	16.39	16.88	17.45	18.90
	8H	19.28	19.84	20.36	20.91	22.35	15.88	16.43	16.96	17.51	18.95
	12H	19.27	19.80	20.36	20.87	22.33	15.89	16.41	16.97	17.48	18.95
4H	2H	17.46	18.10	18.53	19.15	20.58	14.53	15.16	15.60	16.22	17.65
	3H	19.00	19.52	20.08	20.61	22.05	15.90	16.43	16.98	17.52	18.96
	4H	19.50	19.98	20.58	21.06	22.52	16.45	16.93	17.53	18.00	19.47
	6H	19.83	20.24	20.92	21.34	22.80	16.84	17.26	17.94	18.35	19.82
	8H	19.90	20.29	21.00	21.38	22.85	16.95	17.33	18.04	18.42	19.90
	12H	19.91	20.26	21.02	21.36	22.85	16.96	17.31	18.07	18.42	19.90
8H	4H	19.53	19.92	20.62	21.01	22.48	16.76	17.15	17.86	18.24	19.72
	6H	19.96	20.28	21.08	21.41	22.89	17.27	17.59	18.38	18.72	20.19
	8H	20.11	20.39	21.23	21.50	22.99	17.43	17.71	18.55	18.82	20.32
	12H	20.17	20.42	21.29	21.52	23.06	17.49	17.73	18.61	18.84	20.37
12H	4H	19.48	19.83	20.59	20.94	22.42	16.78	17.12	17.89	18.23	19.71
	6H	19.95	20.23	21.08	21.35	22.84	17.33	17.61	18.45	18.72	20.22
	8H	20.11	20.36	21.24	21.47	23.00	17.51	17.76	18.64	18.87	20.40