

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: P854477

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

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P854477
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-13, G3-2308-130-2)
Test Lab: INNOVATION CENTER
Issue Date: 7/12/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ2-WBN-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

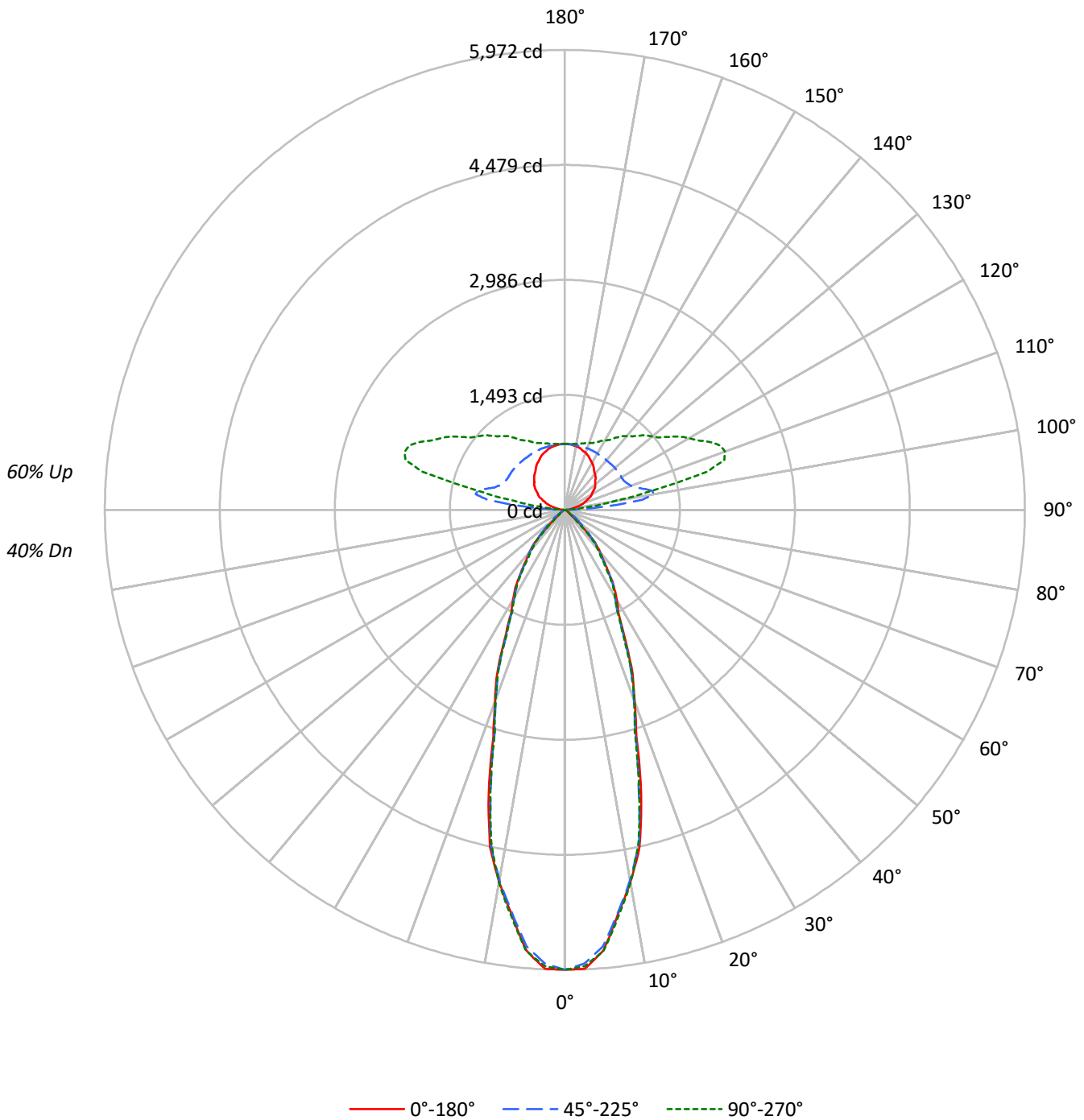
Lumens per Lamp: N/A
Luminaire Lumens: 8749.6 lumens
Efficiency: N/A
Efficacy: 122.4 lumens/watt
Spacing Criteria (0/90/45): 0.59 / 0.58 / 0.63
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: Semi-Indirect

Input Watts (W): 71.5
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	61	61	61	47	47	47	40				
1	97	94	91	88	89	86	83	81	71	69	67	57	56	55	44	43	43	37				
2	90	84	79	75	82	77	73	70	64	61	59	52	50	49	41	40	39	34				
3	84	76	70	65	77	70	65	61	59	55	52	48	46	44	39	37	36	32				
4	78	69	63	58	71	64	58	54	54	50	47	45	42	40	36	35	33	30				
5	73	63	56	51	67	58	53	48	50	46	42	42	39	37	34	32	31	28				
6	68	58	51	46	62	54	48	44	46	42	39	39	36	34	32	30	29	26				
7	64	53	46	42	59	50	44	40	43	39	35	36	33	31	31	29	27	25				
8	60	49	43	38	55	46	40	36	40	36	33	34	31	29	29	27	25	23				
9	56	46	39	35	52	43	37	33	37	33	30	32	29	27	27	25	24	22				
10	53	43	36	32	49	40	35	31	35	31	28	31	27	25	26	24	23	21				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	96416	96416	96416
5°	93094	92166	93196
10°	80466	80084	80658
15°	64030	62012	62260
20°	45486	44886	45215
25°	32724	32083	31857
30°	25005	24332	24274
35°	19628	19293	18792
40°	14870	14670	13955
45°	8321	9942	7426
50°	2926	6121	2582
55°	1790	3339	1700
60°	1369	1744	1266
65°	1253	1295	1173
70°	1199	1199	1100
75°	1123	1123	1054
80°	986	986	986
85°	982	778	778

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°
 Vertical Angle: 45°
 Luminance: 9942 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	518.4	5.9
10°-20°	1030.2	11.8
20°-30°	853.2	9.8
30°-40°	613.8	7.0
40°-50°	312.7	3.6
50°-60°	81.4	0.9
60°-70°	33.8	0.4
70°-80°	18.7	0.2
80°-90°	6.5	0.1
90°-100°	327.4	3.7
100°-110°	1066.0	12.2
110°-120°	1054.5	12.1
120°-130°	861.7	9.8
130°-140°	704.3	8.0
140°-150°	548.6	6.3
150°-160°	395.4	4.5
160°-170°	241.7	2.8
170°-180°	81.5	0.9
0°-30°	2401.7	27.4
0°-40°	3015.5	34.5
0°-60°	3409.6	39.0
0°-90°	3468.6	39.6
90°-120°	2447.9	28.0
90°-150°	4562.4	52.1
90°-180°	5281.0	60.4
0°-180°	8749.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	5972	5972	5972	5972	5972	
5°	5744	5736	5687	5769	5750	518
15°	3831	3787	3710	3736	3725	1040
25°	1837	1834	1801	1785	1788	864
35°	996	1002	979	963	953	625
45°	364	419	435	405	325	291
55°	64	74	119	69	60	63
65°	33	34	34	32	31	33
75°	18	18	18	17	17	19
85°	5	5	4	5	4	6
90°	0	3	7	6	6	2
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°	5971.6	5971.6	5971.6	5971.6	5971.6
2.5°	5962.3	5952.3	5895.3	5942.5	5930.9
5°	5743.9	5735.6	5686.6	5768.9	5750.2
7.5°	5292.8	5299.8	5271.2	5343.8	5323.9
10°	4908.0	4926.7	4884.7	4990.1	4919.7
12.5°	4483.4	4471.4	4442.3	4458.6	4419.7
15°	3830.6	3787.1	3709.9	3736.1	3724.7
17.5°	3085.5	3102.3	3035.3	3032.4	3019.6
20°	2647.3	2652.5	2612.4	2633.5	2631.5
22.5°	2294.8	2295.8	2244.6	2275.5	2256.9
25°	1836.9	1833.8	1800.9	1785.1	1788.2
27.5°	1506.4	1493.6	1468.7	1479.1	1471.5
30°	1341.2	1330.8	1305.1	1311.3	1302.0
32.5°	1192.8	1193.3	1167.0	1163.9	1157.0
35°	995.8	1002.0	978.8	962.7	953.4
37.5°	819.9	825.7	806.2	782.7	774.8
40°	705.5	709.7	696.0	668.3	662.1
42.5°	581.0	598.4	585.0	558.8	545.1
45°	364.4	419.3	435.4	405.0	325.2
47.5°	184.3	260.4	310.6	229.4	151.1
50°	116.5	169.4	243.7	138.0	102.8
52.5°	89.4	116.5	194.5	101.9	82.4
55°	63.6	73.9	118.6	68.7	60.4
57.5°	49.2	55.0	71.0	52.0	46.8
60°	42.4	46.5	54.0	44.4	39.2
62.5°	38.1	40.6	43.9	37.7	35.8
65°	32.8	33.9	33.9	31.8	30.7
67.5°	28.0	29.0	28.8	27.7	26.7
70°	25.4	26.5	25.4	24.3	23.3
72.5°	22.0	23.1	22.0	21.8	20.8
75°	18.0	18.0	18.0	16.9	16.9
77.5°	14.0	14.2	13.1	13.1	12.3
80°	10.6	11.6	10.6	10.6	10.6
82.5°	8.9	9.1	8.1	8.1	8.1
85°	5.3	5.3	4.2	5.3	4.2
87.5°	1.7	2.3	3.2	3.0	3.0
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	1.67	2.31	2.74	3.36	4.79	1.28	1.93	2.36	2.98	4.41
	3H	2.71	3.28	3.80	4.35	5.79	2.28	2.85	3.36	3.91	5.36
	4H	3.13	3.68	4.23	4.74	6.19	2.70	3.24	3.79	4.30	5.75
	6H	3.45	3.94	4.55	5.01	6.47	3.03	3.52	4.13	4.59	6.05
	8H	3.54	4.01	4.65	5.10	6.55	3.13	3.60	4.23	4.68	6.13
	12H	3.61	4.05	4.71	5.13	6.60	3.17	3.62	4.28	4.70	6.17
4H	2H	1.88	2.42	2.98	3.49	4.94	1.55	2.10	2.66	3.16	4.61
	3H	3.18	3.62	4.28	4.72	6.18	2.79	3.24	3.90	4.33	5.79
	4H	3.74	4.15	4.84	5.23	6.71	3.35	3.76	4.45	4.84	6.32
	6H	4.19	4.54	5.30	5.64	7.12	3.81	4.16	4.92	5.26	6.74
	8H	4.35	4.67	5.46	5.77	7.26	3.96	4.29	5.08	5.38	6.87
	12H	4.45	4.74	5.58	5.85	7.35	4.04	4.34	5.17	5.45	6.94
8H	4H	3.88	4.21	4.99	5.30	6.79	3.53	3.86	4.64	4.95	6.44
	6H	4.46	4.73	5.60	5.87	7.36	4.12	4.38	5.25	5.52	7.01
	8H	4.71	4.94	5.85	6.06	7.57	4.36	4.59	5.50	5.71	7.22
	12H	4.90	5.10	6.04	6.22	7.76	4.53	4.73	5.67	5.84	7.39
12H	4H	3.85	4.15	4.98	5.25	6.75	3.51	3.80	4.64	4.91	6.41
	6H	4.49	4.72	5.63	5.84	7.35	4.15	4.38	5.29	5.50	7.01
	8H	4.76	4.96	5.90	6.08	7.62	4.42	4.62	5.56	5.74	7.28