

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: P853637

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

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P853637
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-13, G3-2308-130-1)
Test Lab: INNOVATION CENTER
Issue Date: 7/12/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ2-BBN-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

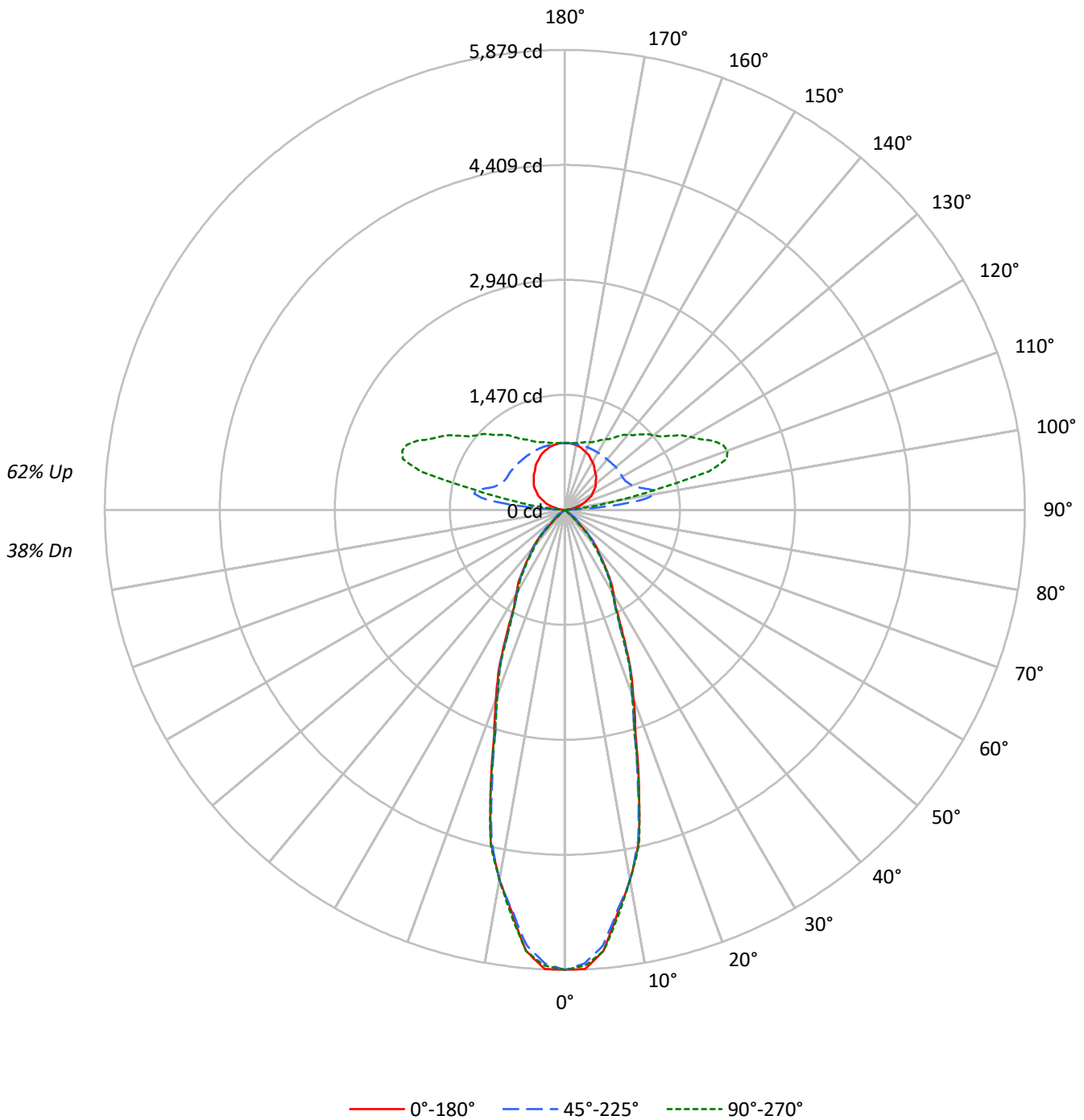
Lumens per Lamp: N/A
Luminaire Lumens: 8459.8 lumens
Efficiency: N/A
Efficacy: 118.3 lumens/watt
Spacing Criteria (0/90/45): 0.58 / 0.58 / 0.62
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: Semi-Indirect

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	0
RCR																		
0	104	104	104	104	95	95	95	95	76	76	76	60	60	60	45	45	45	38
1	97	93	90	87	88	85	82	80	70	68	66	55	54	53	42	42	41	35
2	90	84	79	75	82	77	73	69	64	61	58	51	50	48	40	39	38	33
3	84	76	70	65	76	70	65	61	58	55	52	48	45	43	38	36	35	31
4	78	69	63	58	71	64	58	54	54	50	47	44	42	40	35	34	33	29
5	73	63	56	51	66	58	53	48	49	45	42	41	38	36	33	32	31	27
6	68	58	51	46	62	54	48	44	46	42	38	38	36	33	32	30	29	26
7	64	53	47	42	58	50	44	40	43	38	35	36	33	31	30	28	27	24
8	60	49	43	38	55	46	40	36	40	36	33	34	31	29	28	27	25	23
9	56	46	39	35	52	43	37	34	37	33	30	32	29	27	27	25	24	22
10	53	43	37	32	49	40	35	31	35	31	28	30	27	25	26	24	22	21

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	94918	94918	94918
5°	91743	90610	91795
10°	78735	78787	78735
15°	61113	60139	60971
20°	44106	43196	43160
25°	31274	30027	30084
30°	23267	22674	22458
35°	18104	17645	17268
40°	13399	13063	12237
45°	6846	8394	5514
50°	1490	4629	1090
55°	417	1878	329
60°	68	378	36
65°	0	42	0
70°	0	0	0
75°	0	0	0
80°	0	0	0
85°	0	0	0

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°
 Vertical Angle: 45°
 Luminance: 8394 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	508.3	6.0
10°-20°	1002.2	11.8
20°-30°	808.5	9.6
30°-40°	561.6	6.6
40°-50°	259.5	3.1
50°-60°	36.4	0.4
60°-70°	1.2	0.0
70°-80°	0.0	0.0
80°-90°	1.2	0.0
90°-100°	327.4	3.9
100°-110°	1066.0	12.6
110°-120°	1054.5	12.5
120°-130°	861.7	10.2
130°-140°	704.3	8.3
140°-150°	548.6	6.5
150°-160°	395.4	4.7
160°-170°	241.7	2.9
170°-180°	81.5	1.0
0°-30°	2319.0	27.4
0°-40°	2880.6	34.1
0°-60°	3176.5	37.5
0°-90°	3179.0	37.6
90°-120°	2447.9	28.9
90°-150°	4562.4	53.9
90°-180°	5281.0	62.4
0°-180°	8459.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	5879	5879	5879	5879	5879	
5°	5660	5630	5591	5660	5664	509
15°	3656	3703	3598	3649	3648	1006
25°	1756	1716	1686	1710	1689	822
35°	918	918	895	879	876	575
45°	300	358	368	334	242	242
55°	15	23	67	19	12	19
65°	0	0	1	0	0	0
75°	0	0	0	0	0	0
85°	0	0	0	0	0	0
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°	5878.8	5878.8	5878.8	5878.8	5878.8
2.5°	5875.4	5853.8	5802.5	5848.8	5834.7
5°	5660.5	5630.5	5590.6	5659.6	5663.7
7.5°	5186.3	5196.1	5159.0	5235.1	5227.0
10°	4802.4	4809.6	4805.6	4830.3	4802.4
12.5°	4357.4	4386.2	4331.8	4370.2	4382.0
15°	3656.1	3702.7	3597.8	3648.6	3647.6
17.5°	2998.4	2993.6	2939.5	2948.9	2945.8
20°	2567.0	2559.7	2514.0	2506.7	2511.9
22.5°	2197.5	2185.2	2169.1	2150.8	2157.6
25°	1755.5	1716.1	1685.5	1710.5	1688.7
27.5°	1409.0	1408.4	1383.2	1386.0	1390.2
30°	1248.0	1240.8	1216.2	1217.0	1204.6
32.5°	1104.8	1109.9	1079.8	1073.8	1061.3
35°	918.5	918.5	895.2	879.3	876.1
37.5°	745.8	744.0	727.4	704.8	696.7
40°	635.7	630.5	619.8	592.0	580.6
42.5°	510.2	524.1	513.8	485.9	468.7
45°	299.8	357.8	367.6	333.7	241.5
47.5°	128.8	192.6	245.4	159.9	83.3
50°	59.3	109.1	184.3	78.7	43.4
52.5°	34.7	59.6	136.9	46.0	27.3
55°	14.8	23.1	66.7	18.9	11.7
57.5°	5.5	10.1	25.2	8.2	4.4
60°	2.1	4.2	11.7	3.1	1.1
62.5°	0.4	1.7	5.7	1.5	0.2
65°	0.0	0.0	1.1	0.0	0.0
67.5°	0.0	0.0	0.0	0.0	0.0
70°	0.0	0.0	0.0	0.0	0.0
72.5°	0.0	0.0	0.0	0.0	0.0
75°	0.0	0.0	0.0	0.0	0.0
77.5°	0.0	0.0	0.0	0.0	0.0
80°	0.0	0.0	0.0	0.0	0.0
82.5°	0.0	0.0	0.0	0.0	0.0
85°	0.0	0.0	0.0	0.0	0.0
87.5°	0.0	0.6	1.5	1.3	1.3
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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	3H	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	4H	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	6H	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	8H	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	12H	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4H	2H	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	3H	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	4H	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	6H	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	8H	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	12H	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
8H	4H	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	6H	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	8H	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	12H	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12H	4H	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	6H	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	8H	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00