

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: P853553

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

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P853553
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-13, G3-2104-222-2)
Test Lab: INNOVATION CENTER
Issue Date: 7/12/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ2-BBM-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

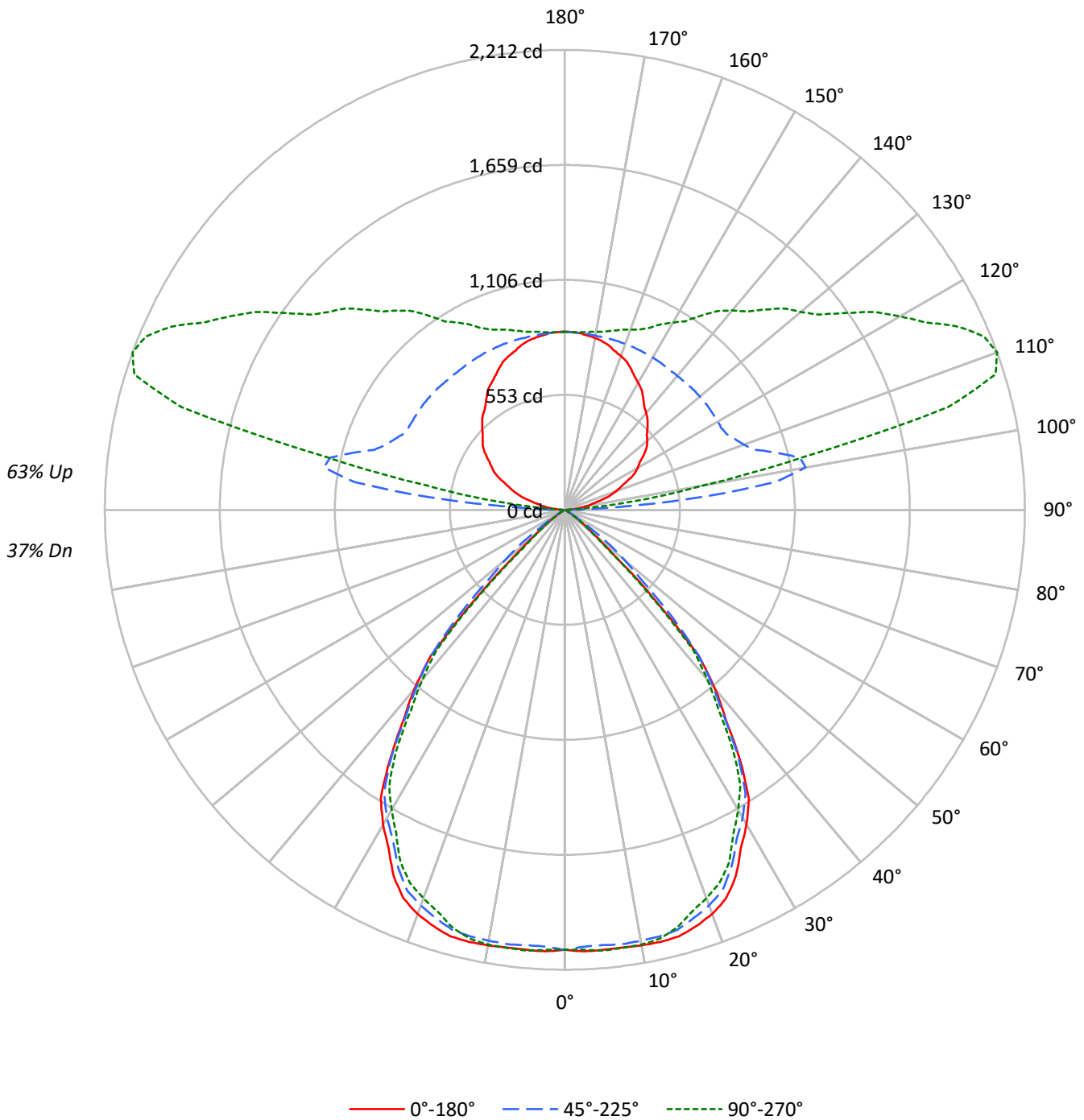
Lumens per Lamp: N/A
Luminaire Lumens: 8445.3 lumens
Efficiency: N/A
Efficacy: 118.1 lumens/watt
Spacing Criteria (0/90/45): 1.22 / 1.17 / 1.16
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: Semi-Indirect

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

TEST NUMBER: P853553

CATALOG NUMBER: SQ2-BBM-125U-075D-940-UNV-STD-W-4

Luminous Intensity Polar Plot





TEST NUMBER: P853553

CATALOG NUMBER: SQ2-BBM-125U-075D-940-UNV-STD-W-4

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	94	94	94	94	76	76	76	60	60	60	45	45	45	37
1	96	93	90	87	88	85	82	79	69	67	66	55	54	53	42	41	40	35
2	89	83	78	73	81	76	71	68	62	59	57	50	48	46	39	38	37	31
3	82	74	68	63	75	68	63	58	56	53	50	46	43	41	36	34	33	29
4	76	67	60	55	69	61	56	51	51	47	44	42	39	37	33	31	30	26
5	70	60	53	48	64	56	49	45	47	42	39	38	35	33	31	29	27	24
6	65	55	47	42	60	50	44	40	43	38	35	35	32	30	28	26	25	22
7	61	50	43	38	55	46	40	35	39	34	31	32	29	27	26	24	23	20
8	57	45	39	34	52	42	36	32	36	31	28	30	27	24	24	22	21	18
9	53	42	35	30	48	39	33	29	33	29	25	28	25	22	23	21	19	17
10	49	38	32	28	45	36	30	26	31	26	23	26	23	20	21	19	17	16

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	34168	34168	34168
5°	34434	34057	34486
10°	34869	34503	34816
15°	35497	34965	34788
20°	35541	34795	34160
25°	34663	33777	33305
30°	32585	31875	31066
35°	28919	28691	27835
40°	23718	23317	22447
45°	14141	16630	13271
50°	4413	9226	4175
55°	1669	3277	1669
60°	103	924	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: 16630 cd/sqm



TEST NUMBER: P853553

CATALOG NUMBER: SQ2-BBM-125U-075D-940-UNV-STD-W-4

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	202.3	2.4
10°-20°	592.7	7.0
20°-30°	871.9	10.3
30°-40°	891.2	10.6
40°-50°	513.4	6.1
50°-60°	88.5	1.0
60°-70°	3.2	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°	1666.9	19.7
0°-40°	2558.1	30.3
0°-60°	3160.0	37.4
0°-90°	3164.5	37.5
90°-120°	2447.9	29.0
90°-150°	4562.4	54.0
90°-180°	5281.0	62.5
0°-180°	8445.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2116	2116	2116	2116	2116	
5°	2125	2120	2101	2130	2128	203
15°	2124	2141	2092	2095	2081	598
25°	1946	1963	1896	1877	1870	888
35°	1467	1479	1456	1428	1412	906
45°	619	711	728	688	581	479
55°	59	68	116	66	59	63
65°	0	0	1	0	0	1
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	

TEST NUMBER: P853553

CATALOG NUMBER: SQ2-BBM-125U-075D-940-UNV-STD-W-4

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2116.2	2116.2	2116.2	2116.2	2116.2
2.5°	2125.5	2119.7	2102.6	2122.0	2117.9
5°	2124.6	2119.5	2101.3	2129.9	2127.8
7.5°	2123.4	2119.8	2107.1	2130.4	2125.3
10°	2126.8	2125.7	2104.5	2128.8	2123.6
12.5°	2128.4	2134.9	2102.0	2121.0	2111.7
15°	2123.6	2141.2	2091.8	2094.7	2081.2
17.5°	2099.9	2124.7	2059.0	2046.9	2027.9
20°	2068.5	2097.5	2025.1	2004.6	1988.1
22.5°	2024.5	2051.0	1981.9	1956.4	1943.2
25°	1945.7	1963.3	1896.0	1876.8	1869.5
27.5°	1834.2	1839.1	1788.4	1764.5	1755.2
30°	1747.8	1747.8	1709.7	1683.9	1666.3
32.5°	1647.0	1644.5	1617.3	1589.0	1571.4
35°	1467.2	1478.6	1455.6	1427.7	1412.2
37.5°	1272.7	1277.0	1259.5	1229.6	1216.6
40°	1125.3	1126.3	1106.3	1084.6	1065.0
42.5°	953.4	974.3	955.5	921.4	913.4
45°	619.3	711.4	728.3	687.8	581.2
47.5°	311.2	425.9	497.8	386.6	273.8
50°	175.7	244.0	367.3	204.5	166.2
52.5°	117.3	147.5	254.7	133.7	112.0
55°	59.3	67.6	116.4	65.5	59.3
57.5°	20.1	31.3	50.6	32.4	22.2
60°	3.2	13.5	28.6	10.4	1.1
62.5°	0.6	3.5	17.6	2.9	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



TEST NUMBER: P853553

CATALOG NUMBER: SQ2-BBM-125U-075D-940-UNV-STD-W-4

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



TEST NUMBER: P853553

CATALOG NUMBER: SQ2-BBM-125U-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	0.00	0.00	0.00	0.42	1.87	0.00	0.00	0.00	0.04	1.49
	3H	0.00	0.00	0.00	0.16	1.63	0.00	0.00	0.00	0.00	1.25
	4H	0.00	0.00	0.00	0.02	1.50	0.00	0.00	0.00	0.00	1.12
	6H	0.00	0.00	0.00	0.00	1.35	0.00	0.00	0.00	0.00	0.97
	8H	0.00	0.00	0.00	0.00	1.27	0.00	0.00	0.00	0.00	0.89
	12H	0.00	0.00	0.00	0.00	1.20	0.00	0.00	0.00	0.00	0.82
4H	2H	0.00	0.00	0.00	0.03	1.50	0.00	0.00	0.00	0.00	1.12
	3H	0.00	0.00	0.00	0.00	1.24	0.00	0.00	0.00	0.00	0.86
	4H	0.00	0.00	0.00	0.00	1.10	0.00	0.00	0.00	0.00	0.72
	6H	0.00	0.00	0.00	0.00	0.94	0.00	0.00	0.00	0.00	0.56
	8H	0.00	0.00	0.00	0.00	0.86	0.00	0.00	0.00	0.00	0.48
	12H	0.00	0.00	0.00	0.00	0.77	0.00	0.00	0.00	0.00	0.39
8H	4H	0.00	0.00	0.00	0.00	0.86	0.00	0.00	0.00	0.00	0.48
	6H	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00	0.34
	8H	0.00	0.00	0.00	0.00	0.63	0.00	0.00	0.00	0.00	0.25
	12H	0.00	0.00	0.00	0.00	0.57	0.00	0.00	0.00	0.00	0.19
12H	4H	0.00	0.00	0.00	0.00	0.77	0.00	0.00	0.00	0.00	0.39
	6H	0.00	0.00	0.00	0.00	0.63	0.00	0.00	0.00	0.00	0.25
	8H	0.00	0.00	0.00	0.00	0.57	0.00	0.00	0.00	0.00	0.19