

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: P853562

Luminaire Tested: SQ2-BBM-150U-050D-940-UNV-STD-W-4

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P853562
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-14, G3-2104-222-1)
Test Lab: INNOVATION CENTER
Issue Date: 7/12/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ2-BBM-150U-050D-940-UNV-STD-W-4
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE
DOWNLIGHT 500 LUMENS PER FOOT
UPLIGHT 1500 LUMENS PER FOOT
Light Source: -
Ballast/Driver: -

Summary

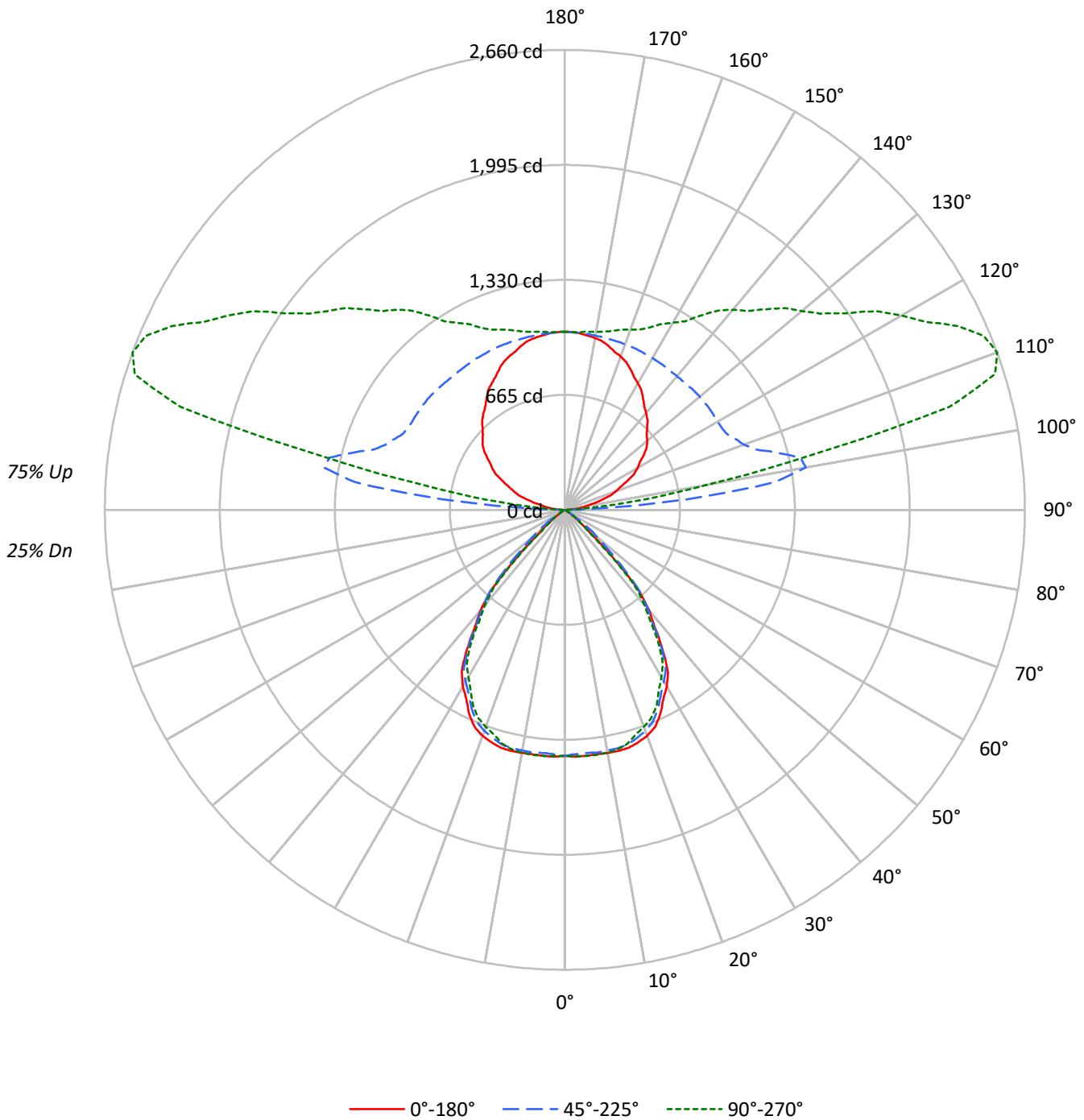
Lumens per Lamp: N/A
Luminaire Lumens: 8477.5 lumens
Efficiency: N/A
Efficacy: 113.5 lumens/watt
Spacing Criteria (0/90/45): 1.22 / 1.17 / 1.16
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: Semi-Indirect

Input Watts (W): 74.7
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	101	101	101	101	90	90	90	90	69	69	69	51	51	51	33	33	33	25
1	93	89	86	83	83	80	77	75	62	60	59	46	45	44	31	30	30	23
2	86	79	74	69	76	71	67	63	56	53	50	42	40	38	28	28	27	21
3	79	71	64	59	70	63	58	54	50	46	44	38	35	34	26	25	24	19
4	73	63	56	51	65	57	51	46	45	41	38	34	32	30	24	23	22	17
5	67	57	49	44	60	51	45	40	41	37	33	31	29	26	22	21	20	16
6	62	51	44	39	55	46	40	36	37	33	29	29	26	24	21	19	18	15
7	57	46	39	34	51	42	36	31	34	29	26	26	23	21	19	17	16	13
8	53	42	35	30	48	38	32	28	31	27	24	24	21	19	18	16	15	12
9	50	39	32	27	45	35	29	25	28	24	21	22	19	17	16	15	14	11
10	46	35	29	24	42	32	26	23	26	22	19	21	18	16	15	14	12	10

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	22976	22976	22976
5°	23131	22875	23167
10°	23399	23191	23382
15°	23821	23504	23397
20°	23886	23378	22941
25°	23259	22693	22335
30°	21973	21382	20810
35°	19478	19247	18705
40°	15900	15677	15051
45°	9373	11065	8720
50°	3162	6167	2816
55°	1072	2204	1132
60°	103	649	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: 11065 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	136.0	1.6
10°-20°	398.0	4.7
20°-30°	585.7	6.9
30°-40°	598.4	7.1
40°-50°	344.0	4.1
50°-60°	60.2	0.7
60°-70°	2.2	0.0
70°-80°	0.0	0.0
80°-90°	1.5	0.0
90°-100°	392.1	4.6
100°-110°	1284.0	15.1
110°-120°	1269.4	15.0
120°-130°	1037.7	12.2
130°-140°	846.8	10.0
140°-150°	659.0	7.8
150°-160°	474.5	5.6
160°-170°	290.3	3.4
170°-180°	98.1	1.2
0°-30°	1119.7	13.2
0°-40°	1718.0	20.3
0°-60°	2122.2	25.0
0°-90°	2125.9	25.1
90°-120°	2945.6	34.7
90°-150°	5489.1	64.7
90°-180°	6352.0	74.9
0°-180°	8477.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1423	1423	1423	1423	1423	
5°	1427	1424	1411	1431	1429	136
15°	1425	1438	1406	1407	1400	401
25°	1306	1317	1274	1260	1254	597
35°	988	993	976	960	949	610
45°	410	478	485	460	382	321
55°	38	45	78	44	40	43
65°	0	0	1	0	0	1
75°	0	0	0	0	0	0
85°	0	0	0	0	0	0
90°	1	3	8	7	8	3
95°	55	160	713	254	165	62
105°	223	318	1274	2422	2300	235
115°	402	480	1036	2140	2512	397
125°	560	624	1021	1687	1982	498
135°	674	745	1012	1455	1640	521
145°	788	846	1010	1252	1372	494
155°	898	928	1016	1120	1164	413
165°	980	990	1021	1060	1071	276
175°	1025	1025	1026	1033	1031	97
180°	1029	1029	1029	1029	1029	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1423.0	1423.0	1423.0	1423.0	1423.0
2.5°	1428.9	1425.6	1414.5	1427.2	1423.9
5°	1427.2	1424.1	1411.4	1431.4	1429.4
7.5°	1426.4	1423.9	1415.4	1432.9	1428.7
10°	1427.2	1427.2	1414.5	1430.3	1426.2
12.5°	1428.9	1433.1	1412.0	1424.4	1418.6
15°	1425.1	1437.5	1406.1	1407.0	1399.7
17.5°	1409.7	1426.4	1383.4	1373.2	1362.3
20°	1390.2	1407.8	1360.6	1344.5	1335.2
22.5°	1360.6	1377.3	1327.6	1314.0	1303.9
25°	1305.6	1316.9	1273.8	1259.9	1253.7
27.5°	1233.6	1239.4	1201.9	1187.5	1177.1
30°	1178.6	1178.6	1146.9	1130.7	1116.2
32.5°	1110.1	1106.7	1085.9	1067.2	1053.6
35°	988.2	993.3	976.5	960.4	949.0
37.5°	853.4	858.3	841.1	822.7	814.9
40°	754.4	758.5	743.8	724.5	714.1
42.5°	632.5	654.8	641.4	620.3	606.7
45°	410.5	477.7	484.6	459.5	381.9
47.5°	213.9	284.3	336.0	256.6	179.9
50°	125.9	171.4	245.5	140.1	112.1
52.5°	81.0	100.9	172.7	89.6	75.8
55°	38.1	45.3	78.3	44.3	40.2
57.5°	14.2	21.2	35.3	21.4	15.4
60°	3.2	9.4	20.1	6.2	1.1
62.5°	0.6	2.7	11.6	1.2	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°	0.2	0.6	1.7	1.5	1.7
90°	1.1	3.1	8.5	7.4	8.5
92.5°	18.0	65.6	201.4	65.5	52.5
95°	55.0	159.5	712.9	253.9	165.0
97.5°	99.8	210.3	1223.1	739.9	458.6
100°	131.2	236.6	1415.2	1263.8	837.7
102.5°	166.7	269.7	1394.0	1862.2	1443.5
105°	223.2	318.3	1274.5	2421.5	2300.5
107.5°	278.8	366.1	1158.0	2473.8	2606.8
110°	315.2	400.0	1102.1	2412.9	2660.1



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	349.9	432.2	1068.3	2307.0	2623.7
115°	401.9	480.5	1035.5	2139.7	2512.0
117.5°	452.5	525.9	1023.0	1975.3	2353.4
120°	485.5	554.8	1019.6	1879.4	2247.6
122.5°	515.1	582.7	1019.6	1796.7	2138.4
125°	559.5	623.6	1020.7	1687.4	1982.1
127.5°	597.2	662.5	1019.4	1606.7	1863.2
130°	620.9	687.1	1018.6	1558.0	1789.6
132.5°	642.0	709.9	1016.0	1516.0	1726.1
135°	673.7	745.1	1012.2	1455.4	1640.5
137.5°	707.2	777.9	1009.9	1392.1	1559.5
140°	730.9	799.1	1009.0	1352.2	1510.4
142.5°	754.6	818.7	1009.0	1309.5	1452.8
145°	788.0	845.9	1010.1	1251.9	1371.8
147.5°	823.1	871.3	1011.6	1201.7	1292.3
150°	845.1	887.5	1013.3	1172.6	1249.1
152.5°	867.1	904.5	1014.1	1148.6	1211.9
155°	898.0	928.0	1016.4	1120.0	1163.5
157.5°	925.7	947.4	1018.8	1097.5	1129.0
160°	943.5	961.0	1019.6	1084.7	1109.5
162.5°	958.7	973.0	1019.6	1074.4	1092.6
165°	980.5	989.8	1020.7	1060.1	1071.4
167.5°	998.9	1003.4	1021.9	1048.9	1055.2
170°	1009.0	1011.1	1022.8	1042.9	1045.0
172.5°	1016.7	1017.9	1025.3	1038.7	1039.1
175°	1024.9	1024.9	1026.0	1033.3	1031.2
177.5°	1029.1	1028.3	1027.4	1032.4	1029.1
180°	1029.1	1029.1	1029.1	1029.1	1029.1

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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