

Scaled data based on original data using
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-State
Lighting Products

Test Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

Brand: METALUX

Report Number: P188587

Luminaire Tested: **24SR-LD2-59-C-UNV-L830-CD1-PL-U**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P188587
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24637)
Test Lab: INNOVATION CENTER-P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24SR-LD2-59-C-UNV-L830-CD1-PL-U
Description: METALUX 2X4 SKYRIDGE LED FIXTURE WITH PEARL SKYTRIM.

Light Source: EATON LED 3000K
Ballast/Driver: OSRAM ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5518.0 lumens
Efficiency: N/A
Efficacy: 109.9 lumens/watt
Spacing Criteria (0/90/45): 1.29 / 1.98 / 1.87
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

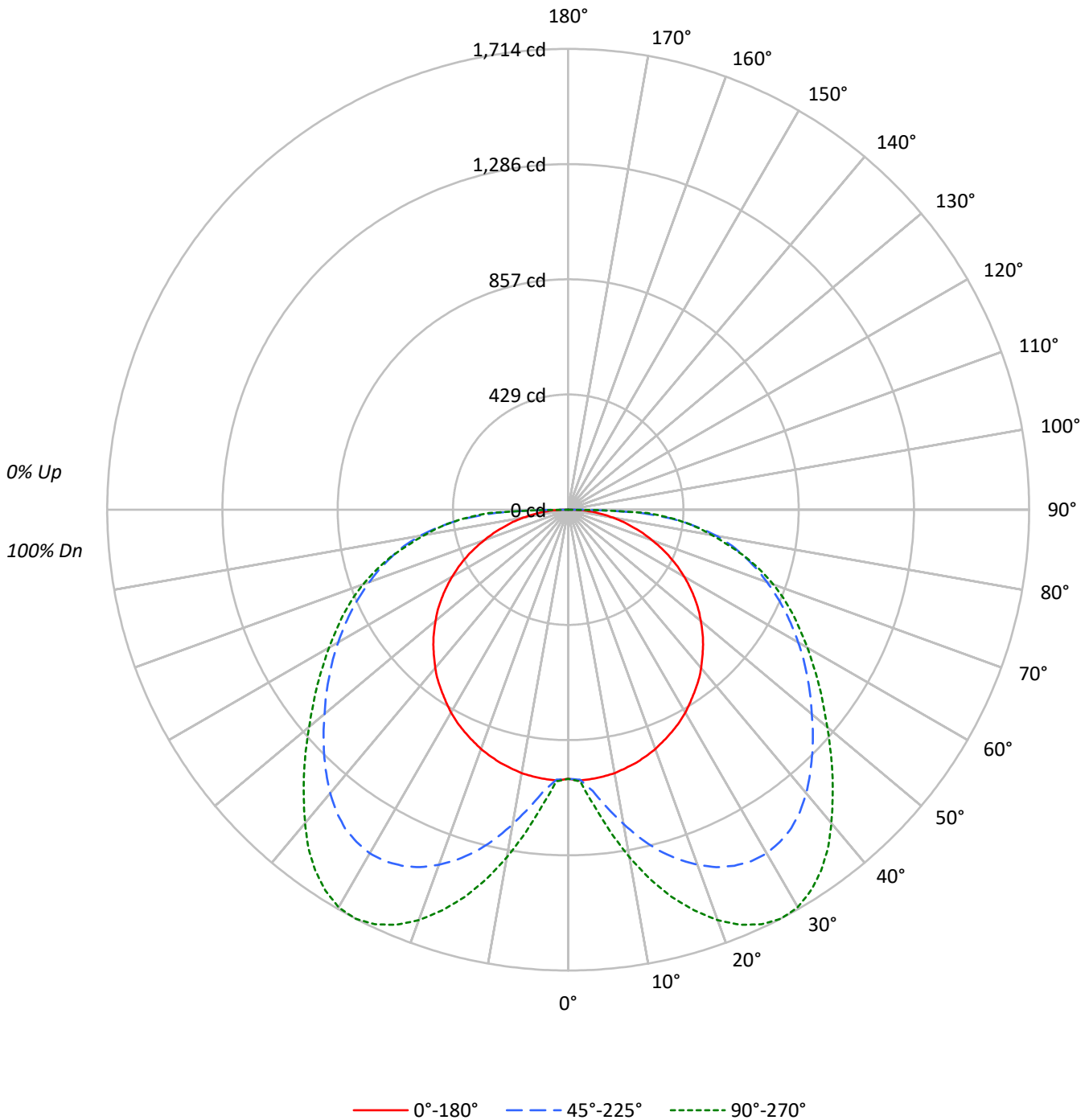
Input Watts (W): 50.2
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	106	100	95	90	103	98	93	88	93	89	85	89	86	83	86	83	80	78
2	95	85	77	70	92	83	76	70	80	73	68	76	71	66	73	69	65	62
3	86	74	64	57	83	72	63	56	69	61	55	66	60	54	63	58	53	51
4	78	64	55	47	75	63	54	47	60	52	46	58	51	45	56	50	45	42
5	71	57	47	40	69	56	47	40	54	45	39	52	44	39	50	43	38	36
6	65	51	41	34	63	50	41	34	48	40	34	46	39	33	45	38	33	31
7	60	46	36	30	59	45	36	30	43	35	29	42	35	29	40	34	29	27
8	56	42	32	26	54	41	32	26	39	32	26	38	31	26	37	30	26	23
9	52	38	29	23	51	37	29	23	36	28	23	35	28	23	34	27	23	21
10	49	35	26	21	48	34	26	21	33	26	21	32	25	21	31	25	20	19

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1347	1347	1347
5°	1358	1419	1491
10°	1359	1622	1793
15°	1357	1830	2078
20°	1356	2013	2326
25°	1354	2169	2526
30°	1353	2293	2652
35°	1350	2376	2692
40°	1351	2418	2674
45°	1350	2442	2644
50°	1348	2476	2631
55°	1346	2546	2672
60°	1341	2658	2764
65°	1331	2829	2936
70°	1306	3094	3192
75°	1287	3537	3559
80°	1298	4334	4199
85°	1417	6004	6116



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	104.1	1.9
10°-20°	361.4	6.5
20°-30°	640.6	11.6
30°-40°	843.0	15.3
40°-50°	914.2	16.6
50°-60°	889.9	16.1
60°-70°	799.6	14.5
70°-80°	633.3	11.5
80°-90°	331.9	6.0
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	1106.1	20.0
0°-40°	1949.1	35.3
0°-60°	3753.2	68.0
0°-90°	5518.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5518.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1001	1001	1001	1001	1001	
5°	1005	1005	1050	1090	1104	96
15°	974	1101	1314	1446	1492	275
25°	912	1161	1461	1638	1701	421
35°	822	1131	1446	1594	1639	515
45°	709	1026	1283	1368	1390	547
55°	574	892	1085	1123	1139	513
65°	418	748	889	905	922	413
75°	248	562	680	681	685	263
85°	92	299	389	390	396	98
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1000.8	1000.8	1000.8	1000.8	1000.8	1000.8	1000.8	1000.8	1000.8	1000.8	1000.8
2.5°	1008.0	1006.6	1005.1	1003.7	1002.2	1000.8	1000.8	1000.8	1002.2	1005.1	1009.5
5°	1005.1	1003.7	1002.2	1002.2	1003.7	1006.6	1015.3	1025.5	1035.7	1050.3	1066.3
7.5°	1000.8	999.3	999.3	1002.2	1013.9	1031.3	1051.7	1073.6	1095.4	1118.7	1140.6
10°	994.9	993.5	994.9	1008.0	1034.3	1063.4	1094.0	1124.6	1153.7	1187.2	1217.8
12.5°	984.7	984.7	992.0	1018.2	1056.1	1095.4	1134.8	1175.6	1213.4	1254.2	1289.2
15°	974.5	974.5	990.6	1029.9	1078.0	1124.6	1174.1	1222.2	1267.3	1313.9	1354.7
17.5°	961.4	961.4	989.1	1038.6	1094.0	1150.8	1207.6	1261.5	1312.5	1363.5	1407.2
20°	946.9	949.8	986.2	1045.9	1108.5	1172.6	1233.8	1293.5	1350.4	1405.7	1453.8
22.5°	929.4	935.2	981.8	1048.8	1120.2	1187.2	1254.2	1318.3	1378.0	1439.2	1487.3
25°	911.9	920.6	976.0	1048.8	1124.6	1197.4	1267.3	1334.3	1398.4	1461.1	1513.5
27.5°	893.0	904.6	967.2	1044.5	1126.0	1200.3	1273.2	1343.1	1410.1	1474.2	1528.1
30°	871.1	885.7	954.1	1035.7	1120.2	1195.9	1271.7	1344.5	1411.5	1475.6	1528.1
32.5°	846.3	865.3	938.1	1022.6	1108.5	1185.8	1261.5	1334.3	1402.8	1465.4	1515.0
35°	821.6	844.9	920.6	1006.6	1092.5	1169.7	1245.5	1319.8	1386.8	1446.5	1490.2
37.5°	796.8	821.6	898.8	984.7	1070.7	1147.9	1225.1	1296.5	1360.6	1415.9	1455.2
40°	769.1	796.8	874.0	961.4	1045.9	1123.1	1198.9	1267.3	1325.6	1376.6	1413.0
42.5°	738.5	769.1	847.8	935.2	1018.2	1094.0	1166.8	1230.9	1286.3	1331.4	1362.0
45°	709.4	741.5	820.1	907.5	989.1	1063.4	1133.3	1193.0	1242.6	1283.4	1309.6
47.5°	677.4	710.9	792.4	876.9	957.1	1029.9	1096.9	1150.8	1198.9	1233.8	1257.1
50°	643.9	680.3	761.9	846.3	925.0	996.4	1060.5	1110.0	1153.7	1182.8	1204.7
52.5°	610.4	648.2	729.8	814.3	893.0	961.4	1022.6	1070.7	1108.5	1134.8	1153.7
55°	573.9	616.2	697.8	782.2	858.0	926.5	984.7	1028.4	1063.4	1085.2	1102.7
57.5°	536.1	581.2	665.7	750.2	825.9	891.5	946.9	987.6	1018.2	1037.2	1050.3
60°	498.2	546.3	630.7	715.2	789.5	855.1	907.5	945.4	973.1	987.6	997.8
62.5°	458.9	509.8	595.8	680.3	756.0	817.2	866.7	901.7	926.5	938.1	948.3
65°	418.1	472.0	559.4	643.9	719.6	776.4	824.5	856.5	878.4	888.6	894.4
67.5°	375.8	432.6	521.5	606.0	678.8	734.2	779.3	811.4	828.9	837.6	842.0
70°	332.1	391.9	480.7	565.2	635.1	687.6	731.3	760.4	777.9	786.6	788.1
72.5°	291.3	349.6	439.9	521.5	588.5	639.5	680.3	710.9	728.3	735.6	735.6
75°	247.6	305.9	394.8	473.4	537.5	587.0	627.8	657.0	673.0	680.3	680.3
77.5°	209.8	263.7	346.7	422.4	482.2	530.2	569.6	600.2	617.6	624.9	624.9
80°	167.5	220.0	297.2	367.1	422.4	466.1	506.9	539.0	556.5	559.4	555.0
82.5°	129.6	177.7	243.3	305.9	356.9	397.7	438.5	464.7	477.8	480.7	479.3
85°	91.8	131.1	186.5	237.4	279.7	317.6	346.7	371.5	384.6	388.9	391.9
87.5°	53.9	75.7	110.7	150.0	182.1	206.9	224.3	246.2	259.3	268.0	276.8
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	1000.8	1000.8	1000.8	1000.8	1000.8	1000.8	1000.8	1000.8
2.5°	1008.0	1009.5	1010.9	1010.9	1010.9	1012.4	1010.9	1010.9
5°	1072.1	1080.9	1088.2	1092.5	1096.9	1104.2	1102.7	1104.2
7.5°	1152.2	1166.8	1182.8	1191.6	1197.4	1206.1	1209.1	1209.1
10°	1235.3	1255.7	1274.6	1287.7	1296.5	1309.6	1311.0	1312.5
12.5°	1313.9	1338.7	1360.6	1375.1	1388.2	1399.9	1405.7	1407.2
15°	1380.9	1411.5	1436.3	1455.2	1468.4	1481.5	1488.7	1491.7
17.5°	1440.7	1472.7	1500.4	1522.2	1538.3	1551.4	1560.1	1563.0
20°	1487.3	1522.2	1552.8	1576.1	1595.1	1609.7	1621.3	1624.2
22.5°	1525.2	1561.6	1593.6	1619.8	1638.8	1656.3	1666.5	1670.8
25°	1552.8	1592.2	1625.7	1650.4	1670.8	1686.9	1697.1	1701.4
27.5°	1568.9	1608.2	1640.2	1665.0	1685.4	1700.0	1710.2	1714.5
30°	1568.9	1606.7	1638.8	1662.1	1681.0	1695.6	1702.9	1707.2
32.5°	1552.8	1589.3	1618.4	1638.8	1656.3	1670.8	1676.7	1679.6
35°	1526.6	1558.7	1584.9	1602.4	1616.9	1630.0	1635.9	1638.8
37.5°	1488.7	1517.9	1538.3	1554.3	1565.9	1579.1	1583.4	1586.3
40°	1440.7	1468.4	1482.9	1497.5	1507.7	1519.3	1522.2	1522.2
42.5°	1388.2	1411.5	1426.1	1436.3	1443.6	1450.9	1455.2	1455.2
45°	1332.9	1353.3	1363.5	1372.2	1379.5	1385.3	1389.7	1389.7
47.5°	1277.5	1293.5	1302.3	1308.1	1313.9	1319.8	1322.7	1322.7
50°	1222.2	1233.8	1241.1	1245.5	1251.3	1255.7	1258.6	1257.1
52.5°	1166.8	1175.6	1181.4	1185.8	1188.7	1193.0	1194.5	1195.9
55°	1111.5	1117.3	1121.7	1124.6	1130.4	1134.8	1136.2	1139.1
57.5°	1057.6	1060.5	1066.3	1067.8	1073.6	1078.0	1079.4	1080.9
60°	1002.2	1005.1	1009.5	1012.4	1019.7	1022.6	1024.1	1027.0
62.5°	948.3	949.8	955.6	961.4	967.2	970.2	971.6	973.1
65°	894.4	898.8	903.2	907.5	913.3	917.7	919.2	922.1
67.5°	842.0	844.9	850.7	855.1	859.5	863.8	866.7	868.2
70°	788.1	791.0	795.4	798.3	802.6	807.0	811.4	811.4
72.5°	735.6	735.6	738.5	741.5	745.8	748.7	750.2	750.2
75°	678.8	677.4	680.3	681.7	681.7	681.7	683.2	684.6
77.5°	617.6	611.8	608.9	608.9	610.4	607.4	608.9	610.4
80°	547.7	541.9	540.4	540.4	541.9	540.4	541.9	541.9
82.5°	473.4	473.4	469.1	470.5	472.0	469.1	472.0	474.9
85°	387.5	388.9	387.5	391.9	391.9	391.9	393.3	396.2
87.5°	278.2	287.0	284.1	289.9	288.4	289.9	291.3	295.7
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)