

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: P188579

Luminaire Tested: **24SR-LD2-48-C-UNV-L840-CD1-PL-U**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P188579
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-LD2-48-C-UNV-L840-CD1-PL-U
Description: METALUX 2X4 SKYRIDGE LED FIXTURE WITH PEARL SKYTRIM.

Light Source: EATON LED 4000K
Ballast/Driver: OSRAM ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4712.0 lumens
Efficiency: N/A
Efficacy: 123.4 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

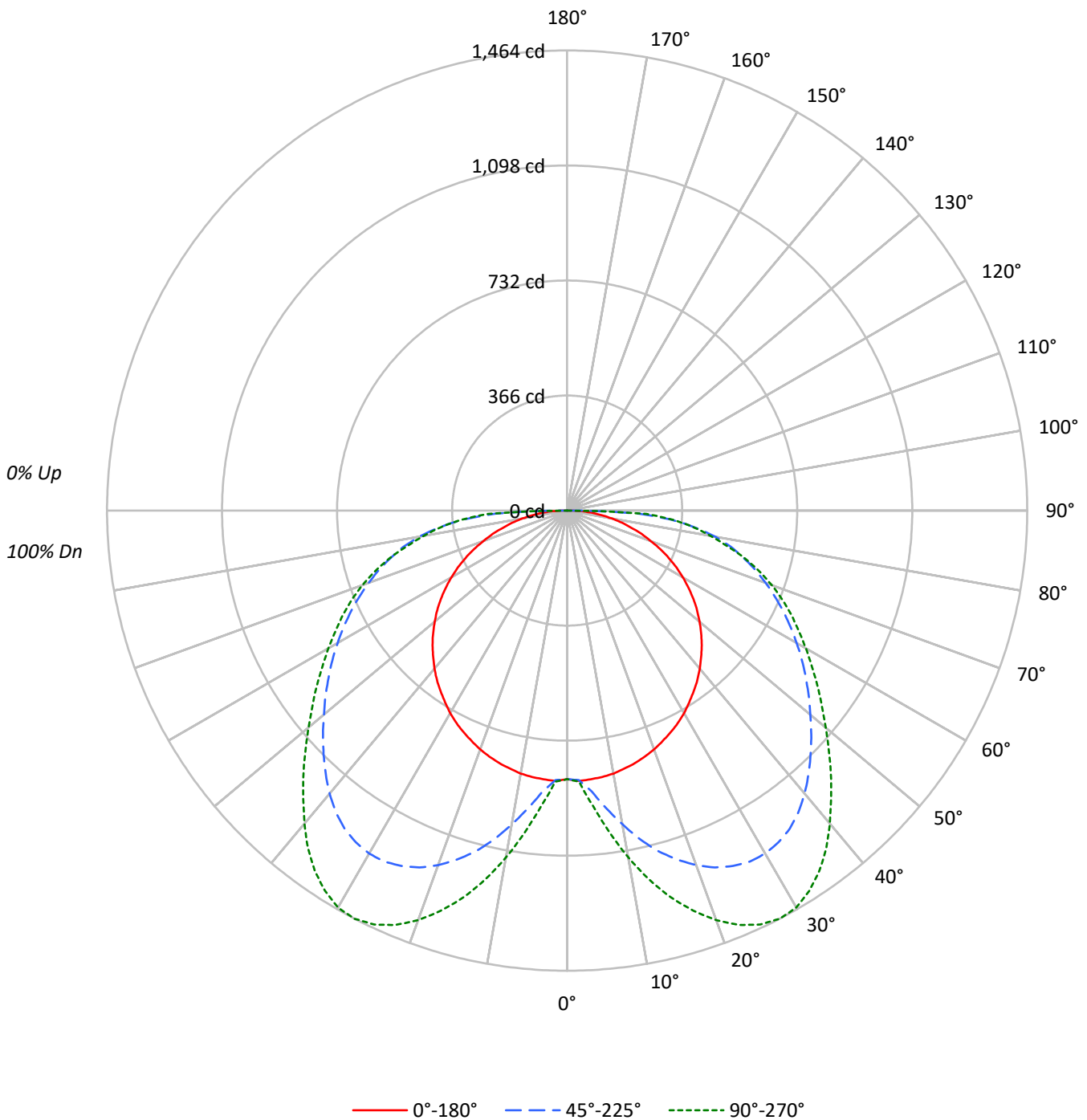
Input Watts (W): 38.2
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	1150	1150	1150
5°	1159	1211	1274
10°	1161	1385	1531
15°	1159	1563	1774
20°	1158	1719	1986
25°	1156	1852	2157
30°	1156	1958	2265
35°	1152	2029	2299
40°	1154	2065	2283
45°	1153	2085	2258
50°	1151	2114	2247
55°	1150	2174	2282
60°	1145	2270	2360
65°	1137	2416	2507
70°	1116	2642	2726
75°	1099	3020	3039
80°	1109	3701	3585
85°	1210	5127	5223



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	88.9	1.9
10°-20°	308.6	6.5
20°-30°	547.0	11.6
30°-40°	719.9	15.3
40°-50°	780.6	16.6
50°-60°	759.9	16.1
60°-70°	682.8	14.5
70°-80°	540.8	11.5
80°-90°	283.4	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°	944.5	20.0
0°-40°	1664.4	35.3
0°-60°	3204.9	68.0
0°-90°	4712.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4712.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	855	855	855	855	855	
5°	858	858	897	931	943	82
15°	832	940	1122	1235	1274	235
25°	779	991	1248	1399	1453	359
35°	702	966	1235	1361	1399	439
45°	606	876	1096	1168	1187	467
55°	490	762	927	959	973	438
65°	357	639	759	773	787	353
75°	212	480	581	582	585	225
85°	78	255	332	333	338	83
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°	854.6	854.6	854.6	854.6	854.6	854.6	854.6	854.6	854.6	854.6	854.6
2.5°	860.8	859.5	858.3	857.1	855.8	854.6	854.6	854.6	855.8	858.3	862.0
5°	858.3	857.1	855.8	855.8	857.1	859.5	867.0	875.7	884.4	896.9	910.6
7.5°	854.6	853.3	853.3	855.8	865.8	880.7	898.1	916.8	935.4	955.3	974.0
10°	849.6	848.4	849.6	860.8	883.2	908.1	934.2	960.3	985.2	1013.8	1039.9
12.5°	840.9	840.9	847.1	869.5	901.8	935.4	969.0	1003.8	1036.2	1071.0	1100.9
15°	832.2	832.2	845.9	879.5	920.5	960.3	1002.6	1043.6	1082.2	1122.0	1156.8
17.5°	821.0	821.0	844.6	886.9	934.2	982.7	1031.2	1077.2	1120.8	1164.3	1201.6
20°	808.5	811.0	842.1	893.1	946.6	1001.4	1053.6	1104.6	1153.1	1200.4	1241.4
22.5°	793.6	798.6	838.4	895.6	956.6	1013.8	1071.0	1125.7	1176.7	1229.0	1270.0
25°	778.7	786.2	833.4	895.6	960.3	1022.5	1082.2	1139.4	1194.2	1247.7	1292.4
27.5°	762.5	772.5	826.0	891.9	961.6	1025.0	1087.2	1146.9	1204.1	1258.8	1304.9
30°	743.9	756.3	814.8	884.4	956.6	1021.3	1085.9	1148.1	1205.4	1260.1	1304.9
32.5°	722.7	738.9	801.1	873.2	946.6	1012.6	1077.2	1139.4	1197.9	1251.4	1293.7
35°	701.6	721.5	786.2	859.5	932.9	998.9	1063.6	1127.0	1184.2	1235.2	1272.5
37.5°	680.4	701.6	767.5	840.9	914.3	980.2	1046.1	1107.1	1161.8	1209.1	1242.7
40°	656.8	680.4	746.4	821.0	893.1	959.1	1023.7	1082.2	1132.0	1175.5	1206.6
42.5°	630.7	656.8	724.0	798.6	869.5	934.2	996.4	1051.1	1098.4	1136.9	1163.1
45°	605.8	633.2	700.3	775.0	844.6	908.1	967.8	1018.8	1061.1	1095.9	1118.3
47.5°	578.4	607.0	676.7	748.8	817.3	879.5	936.7	982.7	1023.7	1053.6	1073.5
50°	549.8	580.9	650.6	722.7	789.9	850.8	905.6	947.9	985.2	1010.1	1028.7
52.5°	521.2	553.5	623.2	695.4	762.5	821.0	873.2	914.3	946.6	969.0	985.2
55°	490.1	526.2	595.8	668.0	732.7	791.1	840.9	878.2	908.1	926.7	941.6
57.5°	457.8	496.3	568.5	640.6	705.3	761.3	808.5	843.4	869.5	885.7	896.9
60°	425.4	466.5	538.6	610.8	674.2	730.2	775.0	807.3	830.9	843.4	852.1
62.5°	391.8	435.4	508.8	580.9	645.6	697.8	740.1	770.0	791.1	801.1	809.8
65°	357.0	403.0	477.7	549.8	614.5	663.0	704.1	731.4	750.1	758.8	763.8
67.5°	320.9	369.4	445.3	517.5	579.7	626.9	665.5	692.9	707.8	715.3	719.0
70°	283.6	334.6	410.5	482.6	542.3	587.1	624.4	649.3	664.3	671.7	673.0
72.5°	248.8	298.5	375.7	445.3	502.5	546.1	580.9	607.0	622.0	628.2	628.2
75°	211.5	261.2	337.1	404.3	459.0	501.3	536.1	561.0	574.7	580.9	580.9
77.5°	179.1	225.1	296.1	360.7	411.7	452.8	486.4	512.5	527.4	533.6	533.6
80°	143.1	187.8	253.8	313.5	360.7	398.1	432.9	460.3	475.2	477.7	473.9
82.5°	110.7	151.8	207.7	261.2	304.8	339.6	374.4	396.8	408.0	410.5	409.3
85°	78.4	112.0	159.2	202.8	238.8	271.2	296.1	317.2	328.4	332.1	334.6
87.5°	46.0	64.7	94.5	128.1	155.5	176.6	191.6	210.2	221.4	228.9	236.3
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°	854.6	854.6	854.6	854.6	854.6	854.6	854.6	854.6
2.5°	860.8	862.0	863.3	863.3	863.3	864.5	863.3	863.3
5°	915.5	923.0	929.2	932.9	936.7	942.9	941.6	942.9
7.5°	983.9	996.4	1010.1	1017.5	1022.5	1030.0	1032.5	1032.5
10°	1054.8	1072.3	1088.4	1099.6	1107.1	1118.3	1119.5	1120.8
12.5°	1122.0	1143.2	1161.8	1174.3	1185.5	1195.4	1200.4	1201.6
15°	1179.2	1205.4	1226.5	1242.7	1253.9	1265.1	1271.3	1273.8
17.5°	1230.2	1257.6	1281.2	1299.9	1313.6	1324.8	1332.2	1334.7
20°	1270.0	1299.9	1326.0	1345.9	1362.1	1374.5	1384.5	1387.0
22.5°	1302.4	1333.5	1360.8	1383.2	1399.4	1414.3	1423.0	1426.8
25°	1326.0	1359.6	1388.2	1409.4	1426.8	1440.5	1449.2	1452.9
27.5°	1339.7	1373.3	1400.7	1421.8	1439.2	1451.7	1460.4	1464.1
30°	1339.7	1372.0	1399.4	1419.3	1435.5	1447.9	1454.1	1457.9
32.5°	1326.0	1357.1	1382.0	1399.4	1414.3	1426.8	1431.8	1434.2
35°	1303.6	1331.0	1353.4	1368.3	1380.8	1391.9	1396.9	1399.4
37.5°	1271.3	1296.2	1313.6	1327.3	1337.2	1348.4	1352.1	1354.6
40°	1230.2	1253.9	1266.3	1278.8	1287.5	1297.4	1299.9	1299.9
42.5°	1185.5	1205.4	1217.8	1226.5	1232.7	1238.9	1242.7	1242.7
45°	1138.2	1155.6	1164.3	1171.8	1178.0	1183.0	1186.7	1186.7
47.5°	1090.9	1104.6	1112.1	1117.0	1122.0	1127.0	1129.5	1129.5
50°	1043.6	1053.6	1059.8	1063.6	1068.5	1072.3	1074.7	1073.5
52.5°	996.4	1003.8	1008.8	1012.6	1015.0	1018.8	1020.0	1021.3
55°	949.1	954.1	957.8	960.3	965.3	969.0	970.3	972.7
57.5°	903.1	905.6	910.6	911.8	916.8	920.5	921.7	923.0
60°	855.8	858.3	862.0	864.5	870.7	873.2	874.5	877.0
62.5°	809.8	811.0	816.0	821.0	826.0	828.5	829.7	830.9
65°	763.8	767.5	771.2	775.0	779.9	783.7	784.9	787.4
67.5°	719.0	721.5	726.4	730.2	733.9	737.6	740.1	741.4
70°	673.0	675.4	679.2	681.7	685.4	689.1	692.9	692.9
72.5°	628.2	628.2	630.7	633.2	636.9	639.4	640.6	640.6
75°	579.7	578.4	580.9	582.2	582.2	582.2	583.4	584.6
77.5°	527.4	522.4	520.0	520.0	521.2	518.7	520.0	521.2
80°	467.7	462.7	461.5	461.5	462.7	461.5	462.7	462.7
82.5°	404.3	404.3	400.5	401.8	403.0	400.5	403.0	405.5
85°	330.9	332.1	330.9	334.6	334.6	334.6	335.9	338.3
87.5°	237.6	245.1	242.6	247.5	246.3	247.5	248.8	252.5
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)