

Scaled data based on original data using

LM-41-14 Approved Method for Photometric Testing Of Indoor Fluorescent Luminaires

Test Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

Brand: McGRAW-EDISON

Report Number: P148406

Luminaire Tested: **TLM-F05-LED-E1-5XQ-7050**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P148406
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (P33676)
Test Lab: INNOVATION CENTER-P3
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: MCGRAW-EDISON
Catalog Number: TLM-F05-LED-E1-5XQ-7050
Description: TALON MEDIUM LED SITE LUMINAIRE
(5) LIGHTBARS WITH AccuLED OPTICS - TYPE 5 SQUARE EXTRA WIDE
Light Source: (35) 5000K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

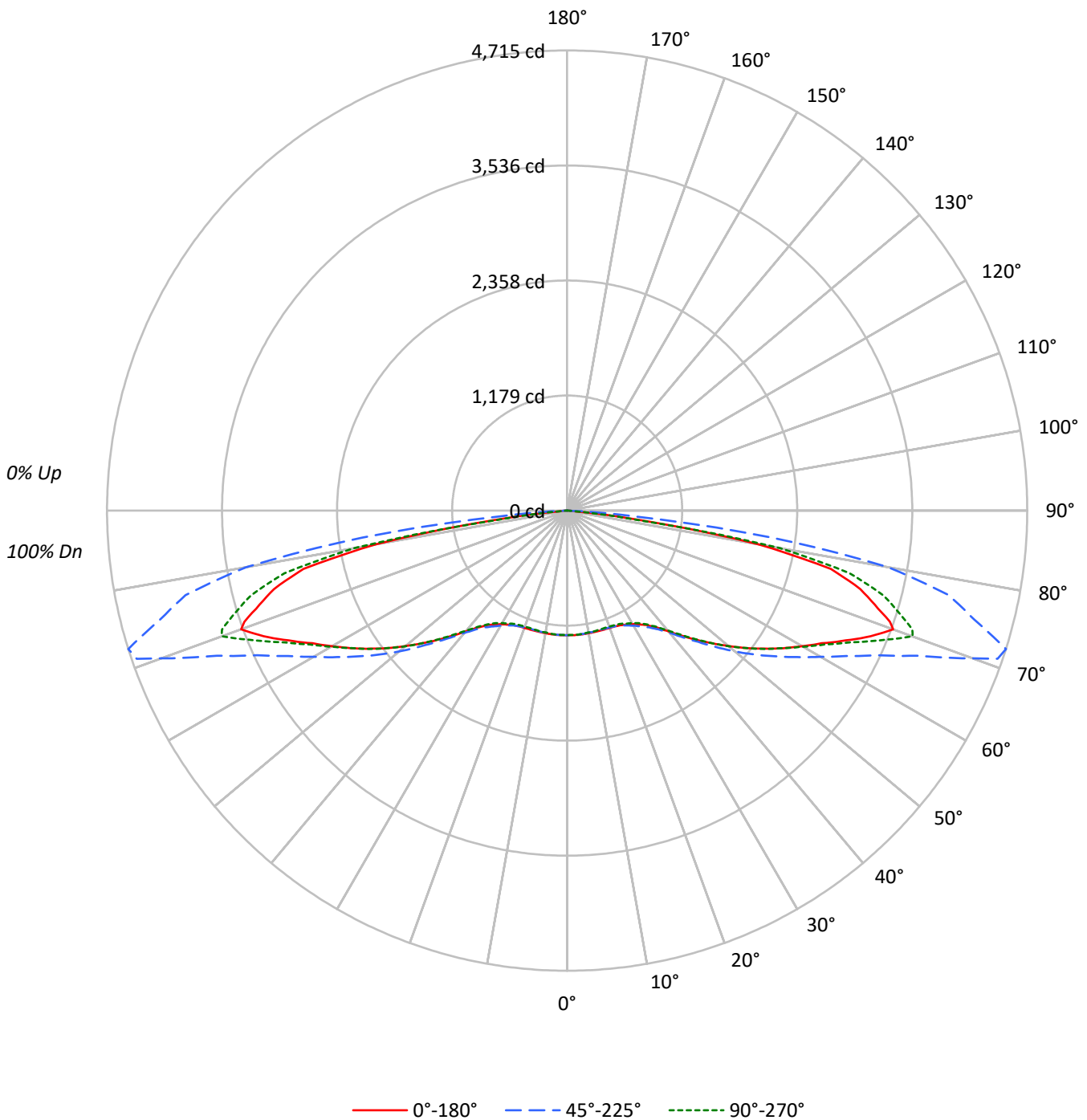
Lumens per Lamp: N/A
Luminaire Lumens: 13470.1 lumens
Efficiency: N/A
Efficacy: 101.1 lumens/watt
Spacing Criteria (0/90/45): 2.11 / 2.1 / 2.7
Luminous Opening: Rectangular (W 0.83' x L: 1' x H: 0')
CIE Type: Direct

Input Watts (W): 133.3
Input Voltage (V): NR
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: 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										
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	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						100														
1	102	95	88	82	99	92	86	80	88	82	78	83	79	75	79	76	73	70						70														
2	88	76	66	57	85	74	64	56	70	62	55	66	59	53	63	57	52	49						49														
3	77	62	51	42	74	60	50	41	57	48	40	54	46	39	51	44	38	36						36														
4	69	53	41	32	66	51	40	31	48	38	31	46	37	30	43	36	30	27						27														
5	62	45	34	25	60	44	33	25	42	32	24	39	31	24	37	30	24	21						21														
6	57	40	29	20	54	39	28	20	37	27	20	35	26	20	33	25	19	17						17														
7	52	35	25	17	50	34	24	17	33	24	17	31	23	17	30	22	16	14						14														
8	48	32	22	15	46	31	21	15	30	21	14	28	20	14	27	20	14	12						12														
9	45	29	19	13	43	28	19	13	27	18	12	26	18	12	25	17	12	10						10														
10	42	26	17	11	40	26	17	11	25	17	11	24	16	11	23	16	11	9						9														

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	16552	16552	16552
5°	16642	16615	16606
10°	16798	16732	16704
15°	17136	17031	16984
20°	17653	17580	17458
25°	18535	18585	18313
30°	20126	20385	19936
35°	22687	23122	22541
40°	27354	27671	27127
45°	34307	34909	34179
50°	43511	45290	43607
55°	55781	58813	55892
60°	72064	77731	72339
65°	96631	107571	98040
70°	134793	167944	142820
75°	155947	216346	168078
80°	148403	249202	164639
85°	12082	101049	7886



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	121.6	0.9
10°-20°	359.8	2.7
20°-30°	602.5	4.5
30°-40°	918.5	6.8
40°-50°	1466.7	10.9
50°-60°	2255.1	16.7
60°-70°	3283.5	24.4
70°-80°	3698.8	27.5
80°-90°	763.6	5.7
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°	1083.9	8.0
0°-40°	2002.5	14.9
0°-60°	5724.3	42.5
0°-90°	13470.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	13470.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1276	1276	1276	1276	1276	
5°	1278	1278	1276	1275	1276	122
15°	1276	1273	1268	1263	1265	362
25°	1295	1297	1299	1286	1280	604
35°	1433	1443	1460	1435	1424	915
45°	1871	1870	1903	1873	1864	1459
55°	2467	2474	2601	2485	2472	2220
65°	3149	3162	3506	3207	3195	3138
75°	3112	3310	4318	3582	3354	3170
85°	81	214	679	172	53	505
90°	0	0	0	0	0	



TEST NUMBER: P148406

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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1276.3	1276.3	1276.3	1276.3	1276.3	1276.3	1276.3	1276.3	1276.3	1276.3	1276.3
2.5°	1278.4	1279.1	1278.7	1278.0	1278.4	1278.0	1277.3	1277.0	1274.5	1275.9	1278.0
5°	1278.4	1277.6	1277.3	1276.9	1277.0	1278.0	1277.0	1275.9	1275.6	1276.3	1275.2
7.5°	1277.7	1276.2	1275.6	1275.2	1275.6	1275.9	1274.8	1273.4	1274.5	1273.4	1272.0
10°	1275.6	1274.5	1274.9	1273.4	1273.8	1273.4	1272.0	1271.0	1271.7	1270.6	1268.8
12.5°	1276.3	1274.5	1274.1	1273.4	1273.1	1272.7	1271.0	1269.2	1269.6	1268.8	1267.1
15°	1276.3	1275.2	1274.8	1273.4	1273.1	1272.4	1270.3	1269.6	1269.6	1268.5	1266.4
17.5°	1277.0	1276.3	1276.3	1274.5	1273.8	1273.4	1271.0	1269.9	1271.0	1268.8	1267.4
20°	1279.1	1278.4	1278.7	1277.7	1276.3	1276.2	1274.5	1273.8	1274.1	1273.8	1269.9
22.5°	1283.3	1283.3	1284.0	1283.6	1283.3	1283.6	1282.2	1282.2	1282.6	1282.6	1279.4
25°	1295.3	1295.0	1295.7	1295.7	1296.0	1298.5	1297.4	1297.1	1298.8	1298.8	1295.7
27.5°	1317.9	1317.2	1317.9	1318.6	1320.4	1323.5	1322.8	1323.9	1326.8	1326.0	1323.2
30°	1344.0	1343.3	1345.1	1347.2	1348.6	1353.6	1351.4	1356.7	1359.2	1361.3	1359.2
32.5°	1382.2	1382.1	1385.3	1386.8	1389.9	1394.9	1395.6	1399.8	1403.0	1406.5	1404.0
35°	1433.0	1432.2	1434.7	1437.2	1441.1	1445.7	1447.4	1453.1	1458.0	1460.5	1455.9
37.5°	1510.6	1506.8	1511.3	1512.7	1515.9	1516.9	1521.9	1529.0	1534.2	1533.6	1530.4
40°	1615.8	1615.1	1613.3	1611.2	1616.1	1617.9	1617.9	1627.4	1635.9	1634.5	1634.2
42.5°	1738.6	1735.4	1733.3	1733.3	1736.2	1736.9	1747.8	1754.8	1760.9	1762.3	1760.9
45°	1870.6	1867.5	1868.2	1866.8	1867.8	1872.4	1878.8	1891.8	1903.1	1903.4	1897.4
47.5°	2012.5	2002.6	2010.4	1999.4	2006.2	2009.7	2025.6	2044.6	2064.4	2068.0	2062.6
50°	2156.6	2155.4	2154.8	2152.6	2155.8	2163.6	2183.0	2213.0	2232.0	2244.8	2236.3
52.5°	2313.9	2308.6	2306.2	2302.6	2305.8	2321.0	2348.1	2374.3	2408.5	2423.0	2411.3
55°	2467.1	2465.4	2456.2	2455.8	2462.5	2486.2	2515.8	2547.9	2585.0	2601.2	2597.0
57.5°	2624.5	2614.3	2611.5	2607.2	2620.7	2642.9	2679.2	2737.1	2775.6	2794.0	2783.4
60°	2778.4	2770.6	2764.6	2763.2	2772.4	2803.5	2855.7	2925.2	2972.9	2996.9	2979.9
62.5°	2943.6	2938.6	2931.6	2923.4	2942.9	2982.8	3047.7	3124.6	3194.9	3224.5	3198.7
65°	3149.0	3138.7	3131.0	3120.8	3136.6	3186.8	3268.3	3376.6	3470.9	3505.5	3487.1
67.5°	3365.7	3356.2	3356.9	3350.5	3378.8	3448.3	3553.5	3700.7	3827.0	3886.0	3851.4
70°	3554.9	3560.2	3561.6	3587.4	3636.0	3742.0	3917.0	4147.5	4339.1	4429.2	4392.1
71°	3499.1	3510.8	3528.8	3555.6	3639.6	3764.9	4003.8	4283.0	4511.8	4664.2	4613.0
72.5°	3341.0	3348.0	3357.2	3398.2	3493.1	3659.0	3905.0	4224.1	4518.1	4715.4	4656.1
75°	3112.3	3119.0	3122.2	3150.8	3237.2	3382.0	3607.2	3890.2	4149.6	4317.7	4301.0
77.5°	2767.1	2768.2	2792.9	2837.0	2934.0	3099.6	3336.8	3630.4	3874.3	4004.9	3922.0
80°	1987.1	1973.7	1999.1	2055.9	2175.9	2365.8	2608.6	2944.0	3214.6	3336.8	3208.3
82.5°	756.1	796.9	861.6	955.4	996.0	1207.1	1433.7	1630.6	1858.6	2113.5	2049.6
85°	81.2	91.4	114.7	142.2	179.6	248.5	343.4	468.7	577.8	679.1	602.8
87.5°	30.4	31.0	34.6	39.9	40.6	42.4	45.2	52.6	49.0	42.3	34.2
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°	1276.3	1276.3	1276.3	1276.3	1276.3	1276.3	1276.3	1276.3
2.5°	1276.3	1276.6	1276.3	1276.6	1276.6	1275.2	1275.6	1274.8
5°	1275.9	1274.9	1275.2	1275.6	1275.2	1275.9	1274.8	1275.6
7.5°	1274.1	1272.0	1272.8	1272.8	1272.0	1273.1	1272.4	1272.0
10°	1270.6	1267.8	1269.2	1268.5	1268.1	1268.5	1268.5	1268.5
12.5°	1267.4	1265.7	1266.0	1265.6	1265.3	1266.4	1266.0	1266.4
15°	1266.8	1263.9	1263.6	1262.8	1263.2	1263.9	1263.9	1265.0
17.5°	1266.0	1262.5	1262.2	1261.4	1261.8	1263.2	1263.6	1262.8
20°	1268.2	1265.4	1264.6	1263.9	1263.6	1265.3	1265.0	1265.0
22.5°	1278.0	1274.5	1274.2	1271.3	1270.2	1271.3	1270.6	1270.6
25°	1293.9	1289.6	1288.2	1284.4	1281.5	1281.5	1280.5	1279.8
27.5°	1322.5	1316.1	1314.7	1311.6	1307.7	1308.4	1306.3	1306.0
30°	1355.6	1350.0	1345.1	1340.5	1335.9	1334.2	1331.7	1331.3
32.5°	1399.1	1392.7	1386.8	1381.1	1374.7	1372.3	1368.0	1366.0
35°	1452.4	1443.9	1436.8	1433.0	1426.6	1423.4	1420.6	1423.8
37.5°	1526.8	1516.6	1513.1	1508.5	1504.3	1499.3	1500.4	1499.3
40°	1629.9	1620.8	1617.2	1609.1	1608.0	1602.4	1605.9	1602.4
42.5°	1757.3	1740.4	1737.9	1731.6	1729.4	1726.3	1727.7	1725.2
45°	1896.0	1880.8	1878.0	1867.8	1868.2	1860.7	1863.6	1863.6
47.5°	2052.0	2036.2	2023.1	2015.7	2012.9	2008.3	2010.8	2010.4
50°	2213.0	2191.4	2177.0	2162.5	2156.2	2157.9	2153.0	2161.4
52.5°	2385.9	2353.8	2333.4	2319.6	2307.6	2310.0	2310.7	2313.2
55°	2564.9	2523.9	2494.3	2476.3	2465.4	2466.0	2469.2	2472.0
57.5°	2744.9	2693.7	2653.5	2626.6	2619.6	2622.8	2622.8	2622.4
60°	2931.6	2870.2	2818.3	2787.9	2781.6	2779.8	2793.6	2789.0
62.5°	3132.0	3058.3	3004.6	2965.8	2956.6	2963.0	2975.4	2972.6
65°	3397.8	3295.8	3226.6	3188.2	3172.7	3179.0	3195.6	3194.9
67.5°	3740.6	3598.0	3506.5	3457.1	3445.8	3453.6	3462.8	3471.6
70°	4253.0	4049.4	3918.8	3811.8	3766.0	3757.2	3766.3	3766.6
71°	4433.4	4199.4	3991.5	3860.9	3785.7	3754.0	3756.4	3740.6
72.5°	4426.0	4137.6	3894.4	3757.8	3653.4	3628.0	3615.6	3596.6
75°	4127.7	3868.0	3656.9	3508.0	3407.4	3377.4	3355.5	3354.4
77.5°	3743.4	3551.7	3319.1	3161.4	3038.9	2989.1	2966.9	2966.2
80°	3009.2	2722.3	2552.2	2457.2	2309.4	2266.6	2221.5	2204.5
82.5°	1819.8	1422.0	1156.3	1027.4	956.1	787.4	706.6	668.5
85°	423.9	301.1	207.5	136.3	98.1	78.0	60.0	53.0
87.5°	28.6	22.6	20.1	16.2	12.4	12.0	7.4	6.4
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)