

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: P148391

Luminaire Tested: **TLM-E04-LED-E1-5XQ-7050**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P148391
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-E04-LED-E1-5XQ-7050
Description: TALON MEDIUM LED SITE LUMINAIRE
(4) LIGHTBARS WITH AccuLED OPTICS - TYPE 5 SQUARE EXTRA WIDE
Light Source: (84) 5000K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

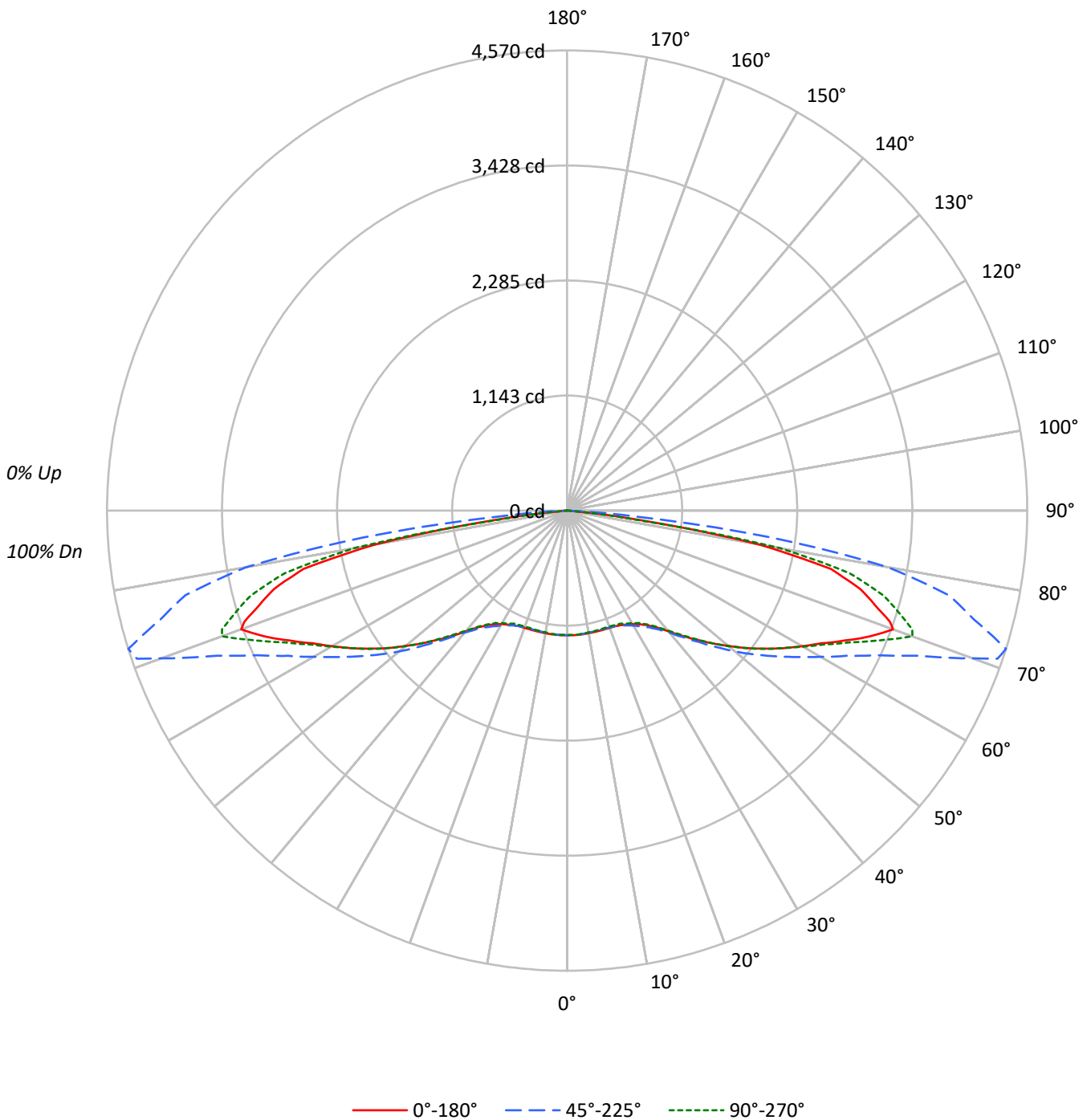
Lumens per Lamp: N/A
Luminaire Lumens: 13053.6 lumens
Efficiency: N/A
Efficacy: 134.3 lumens/watt
Spacing Criteria (0/90/45): 2.11 / 2.1 / 2.7
Luminous Opening: Rectangular (W 0.67' x L: 1' x H: 0')
CIE Type: Direct

Input Watts (W): 97.2
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																				
1	102	95	88	82	99	92	86	80	88	82	78	83	79	75	79	76	73	70																				
2	88	76	66	57	85	74	64	56	70	62	55	66	59	53	63	57	52	49																				
3	77	62	51	42	74	60	50	41	57	48	40	54	46	39	51	44	38	36																				
4	69	53	41	32	66	51	40	31	48	38	31	46	37	30	43	36	30	27																				
5	62	45	34	25	60	44	33	25	42	32	24	39	31	24	37	30	24	21																				
6	57	40	29	20	54	39	28	20	37	27	20	35	26	20	33	25	19	17																				
7	52	35	25	17	50	34	24	17	33	24	17	31	23	17	30	22	16	14																				
8	48	32	22	15	46	31	21	15	30	21	14	28	20	14	27	20	14	12																				
9	45	29	19	13	43	28	19	13	27	18	12	26	18	12	25	17	12	10																				
10	42	26	17	11	40	26	17	11	25	17	11	24	16	11	23	16	11	9																				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	19870	19870	19870
5°	19978	19946	19934
10°	20167	20087	20052
15°	20571	20444	20388
20°	21193	21104	20957
25°	22250	22312	21984
30°	24161	24472	23934
35°	27234	27759	27061
40°	32838	33218	32565
45°	41187	41910	41030
50°	52232	54371	52351
55°	66965	70606	67099
60°	86513	93315	86844
65°	116004	129138	117696
70°	161820	201615	171459
75°	187211	259718	201779
80°	178161	299166	197655
85°	14488	121309	9456



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	117.9	0.9
10°-20°	348.7	2.7
20°-30°	583.9	4.5
30°-40°	890.1	6.8
40°-50°	1421.3	10.9
50°-60°	2185.4	16.7
60°-70°	3181.9	24.4
70°-80°	3584.4	27.5
80°-90°	740.0	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°	1050.4	8.0
0°-40°	1940.5	14.9
0°-60°	5547.3	42.5
0°-90°	13053.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	13053.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1237	1237	1237	1237	1237	
5°	1239	1238	1237	1236	1236	118
15°	1237	1233	1229	1224	1226	351
25°	1255	1257	1259	1246	1240	585
35°	1389	1399	1415	1391	1380	887
45°	1813	1812	1845	1815	1806	1414
55°	2391	2398	2521	2408	2396	2151
65°	3052	3064	3397	3108	3096	3041
75°	3016	3207	4184	3472	3251	3072
85°	79	207	658	167	51	489
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°	1236.8	1236.8	1236.8	1236.8	1236.8	1236.8	1236.8	1236.8	1236.8	1236.8	1236.8
2.5°	1238.8	1239.5	1239.2	1238.5	1238.8	1238.5	1237.8	1237.5	1235.1	1236.4	1238.5
5°	1238.8	1238.2	1237.8	1237.5	1237.5	1238.5	1237.5	1236.5	1236.1	1236.8	1235.8
7.5°	1238.2	1236.8	1236.1	1235.8	1236.1	1236.5	1235.4	1234.0	1235.1	1234.1	1232.7
10°	1236.2	1235.1	1235.4	1234.0	1234.4	1234.0	1232.7	1231.7	1232.4	1231.3	1229.6
12.5°	1236.8	1235.1	1234.8	1234.1	1233.7	1233.4	1231.6	1230.0	1230.3	1229.6	1227.9
15°	1236.8	1235.8	1235.4	1234.1	1233.7	1233.0	1231.0	1230.3	1230.3	1229.2	1227.2
17.5°	1237.4	1236.8	1236.8	1235.1	1234.4	1234.1	1231.6	1230.6	1231.7	1229.6	1228.2
20°	1239.6	1238.8	1239.2	1238.2	1236.8	1236.8	1235.1	1234.4	1234.7	1234.4	1230.6
22.5°	1243.6	1243.6	1244.3	1244.0	1243.6	1244.0	1242.6	1242.6	1243.0	1242.9	1239.9
25°	1255.2	1254.9	1255.6	1255.6	1255.9	1258.3	1257.3	1257.0	1258.7	1258.7	1255.6
27.5°	1277.2	1276.5	1277.1	1277.8	1279.6	1282.6	1282.0	1283.0	1285.7	1285.0	1282.3
30°	1302.4	1301.8	1303.5	1305.6	1306.9	1311.7	1309.6	1314.8	1317.2	1319.2	1317.2
32.5°	1339.4	1339.4	1342.5	1343.8	1346.9	1351.7	1352.4	1356.5	1359.6	1363.0	1360.6
35°	1388.6	1388.0	1390.4	1392.8	1396.5	1401.0	1402.7	1408.2	1412.9	1415.4	1410.9
37.5°	1463.9	1460.1	1464.6	1465.9	1469.0	1470.1	1474.8	1481.7	1486.8	1486.2	1483.0
40°	1565.8	1565.1	1563.4	1561.4	1566.2	1567.9	1567.9	1577.1	1585.4	1583.9	1583.6
42.5°	1684.8	1681.8	1679.7	1679.7	1682.5	1683.2	1693.7	1700.6	1706.4	1707.8	1706.4
45°	1812.8	1809.7	1810.4	1809.0	1810.1	1814.5	1820.6	1833.3	1844.2	1844.6	1838.8
47.5°	1950.3	1940.7	1948.2	1937.6	1944.1	1947.6	1963.0	1981.4	2000.6	2004.0	1998.8
50°	2089.8	2088.8	2088.2	2086.1	2089.1	2096.7	2115.4	2144.6	2163.0	2175.4	2167.1
52.5°	2242.4	2237.3	2234.9	2231.4	2234.5	2249.2	2275.6	2300.8	2334.0	2348.1	2336.8
55°	2390.8	2389.1	2380.2	2379.9	2386.4	2409.3	2438.0	2469.2	2505.0	2520.8	2516.7
57.5°	2543.4	2533.4	2530.7	2526.6	2539.6	2561.2	2596.4	2652.5	2689.8	2707.5	2697.3
60°	2692.5	2685.0	2679.2	2677.8	2686.7	2716.8	2767.4	2834.8	2881.0	2904.2	2887.8
62.5°	2852.6	2847.8	2841.0	2833.1	2851.9	2890.6	2953.5	3028.0	3096.1	3124.8	3099.9
65°	3051.6	3041.7	3034.2	3024.2	3039.7	3088.2	3167.2	3272.2	3363.6	3397.1	3379.3
67.5°	3261.6	3252.4	3253.1	3247.0	3274.3	3341.7	3443.6	3586.2	3708.7	3765.8	3732.3
70°	3445.0	3450.1	3451.5	3476.4	3523.6	3626.2	3795.9	4019.3	4205.0	4292.2	4256.3
71°	3390.9	3402.2	3419.6	3445.6	3527.1	3648.5	3880.0	4150.6	4372.2	4520.0	4470.4
72.5°	3237.7	3244.6	3253.4	3293.1	3385.1	3545.9	3784.3	4093.5	4378.4	4569.6	4512.1
75°	3016.0	3022.6	3025.6	3053.4	3137.1	3277.4	3495.6	3769.9	4021.3	4184.1	4168.0
77.5°	2681.6	2682.6	2706.5	2749.3	2843.4	3003.7	3233.6	3518.2	3754.5	3881.1	3800.7
80°	1925.7	1912.6	1937.3	1992.4	2108.6	2292.7	2528.0	2852.9	3115.3	3233.6	3109.1
82.5°	732.6	772.3	834.9	925.9	965.2	1169.8	1389.4	1580.2	1801.2	2048.1	1986.2
85°	78.6	88.6	111.2	137.8	174.1	240.8	332.8	454.2	559.9	658.1	584.2
87.5°	29.4	30.1	33.5	38.6	39.3	41.0	43.8	51.0	47.6	41.1	33.2
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°	1236.8	1236.8	1236.8	1236.8	1236.8	1236.8	1236.8	1236.8
2.5°	1236.8	1237.2	1236.8	1237.2	1237.2	1235.8	1236.1	1235.4
5°	1236.5	1235.4	1235.8	1236.1	1235.8	1236.4	1235.4	1236.1
7.5°	1234.8	1232.7	1233.4	1233.4	1232.7	1233.8	1233.0	1232.7
10°	1231.3	1228.6	1230.0	1229.3	1228.9	1229.2	1229.3	1229.2
12.5°	1228.3	1226.6	1226.9	1226.5	1226.2	1227.2	1226.8	1227.2
15°	1227.6	1224.8	1224.5	1223.8	1224.2	1224.8	1224.8	1225.8
17.5°	1226.9	1223.5	1223.1	1222.4	1222.8	1224.2	1224.5	1223.8
20°	1229.0	1226.2	1225.5	1224.8	1224.5	1226.2	1225.8	1225.8
22.5°	1238.5	1235.1	1234.7	1232.0	1231.0	1232.0	1231.4	1231.3
25°	1253.9	1249.8	1248.4	1244.6	1242.0	1241.9	1240.9	1240.2
27.5°	1281.6	1275.4	1274.1	1271.0	1267.2	1267.9	1265.9	1265.5
30°	1313.8	1308.3	1303.5	1299.0	1294.6	1292.9	1290.5	1290.2
32.5°	1355.8	1349.7	1343.8	1338.4	1332.2	1329.8	1325.8	1323.6
35°	1407.5	1399.2	1392.4	1388.7	1382.5	1379.4	1376.7	1379.8
37.5°	1479.6	1469.8	1466.3	1461.8	1457.7	1452.9	1454.0	1453.0
40°	1579.6	1570.6	1567.2	1559.3	1558.3	1552.8	1556.3	1552.8
42.5°	1703.0	1686.6	1684.2	1678.0	1676.0	1672.9	1674.2	1671.9
45°	1837.4	1822.7	1820.0	1810.1	1810.4	1803.2	1806.0	1805.9
47.5°	1988.6	1973.2	1960.6	1953.4	1950.6	1946.2	1948.6	1948.2
50°	2144.6	2123.7	2109.6	2095.6	2089.5	2091.2	2086.4	2094.6
52.5°	2312.2	2281.0	2261.2	2247.9	2236.2	2238.6	2239.3	2241.7
55°	2485.6	2445.9	2417.2	2399.7	2389.1	2389.8	2392.9	2395.6
57.5°	2660.0	2610.4	2571.4	2545.4	2538.6	2541.6	2541.7	2541.3
60°	2840.9	2781.4	2731.1	2701.8	2695.6	2693.9	2707.2	2702.8
62.5°	3035.2	2963.7	2911.8	2874.1	2865.2	2871.4	2883.4	2880.6
65°	3292.7	3193.9	3126.9	3089.6	3074.6	3080.7	3096.8	3096.1
67.5°	3624.9	3486.7	3398.1	3350.2	3339.3	3346.8	3355.7	3364.2
70°	4121.5	3924.2	3797.6	3694.0	3649.5	3641.0	3649.8	3650.2
71°	4296.3	4069.5	3868.1	3741.5	3668.6	3637.9	3640.2	3624.9
72.5°	4289.1	4009.7	3774.0	3641.6	3540.4	3515.8	3503.8	3485.4
75°	4000.1	3748.3	3543.8	3399.5	3302.0	3272.9	3251.7	3250.7
77.5°	3627.6	3441.9	3216.5	3063.6	2944.9	2896.7	2875.2	2874.4
80°	2916.2	2638.1	2473.3	2381.2	2238.0	2196.6	2152.7	2136.4
82.5°	1763.5	1378.1	1120.5	995.7	926.6	763.1	684.8	647.8
85°	410.8	291.8	201.1	132.0	95.1	75.6	58.1	51.3
87.5°	27.7	21.9	19.5	15.7	12.0	11.6	7.2	6.2
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)