

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: P148396

Luminaire Tested: **TLM-F04-LED-E1-5XQ-7050**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P148396  
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-F04-LED-E1-5XQ-7050  
Description: TALON MEDIUM LED SITE LUMINAIRE  
(4) LIGHTBARS WITH AccuLED OPTICS - TYPE 5 SQUARE EXTRA WIDE  
Light Source: (28) 5000K CCT, 70 CRI LEDs  
Ballast/Driver: -

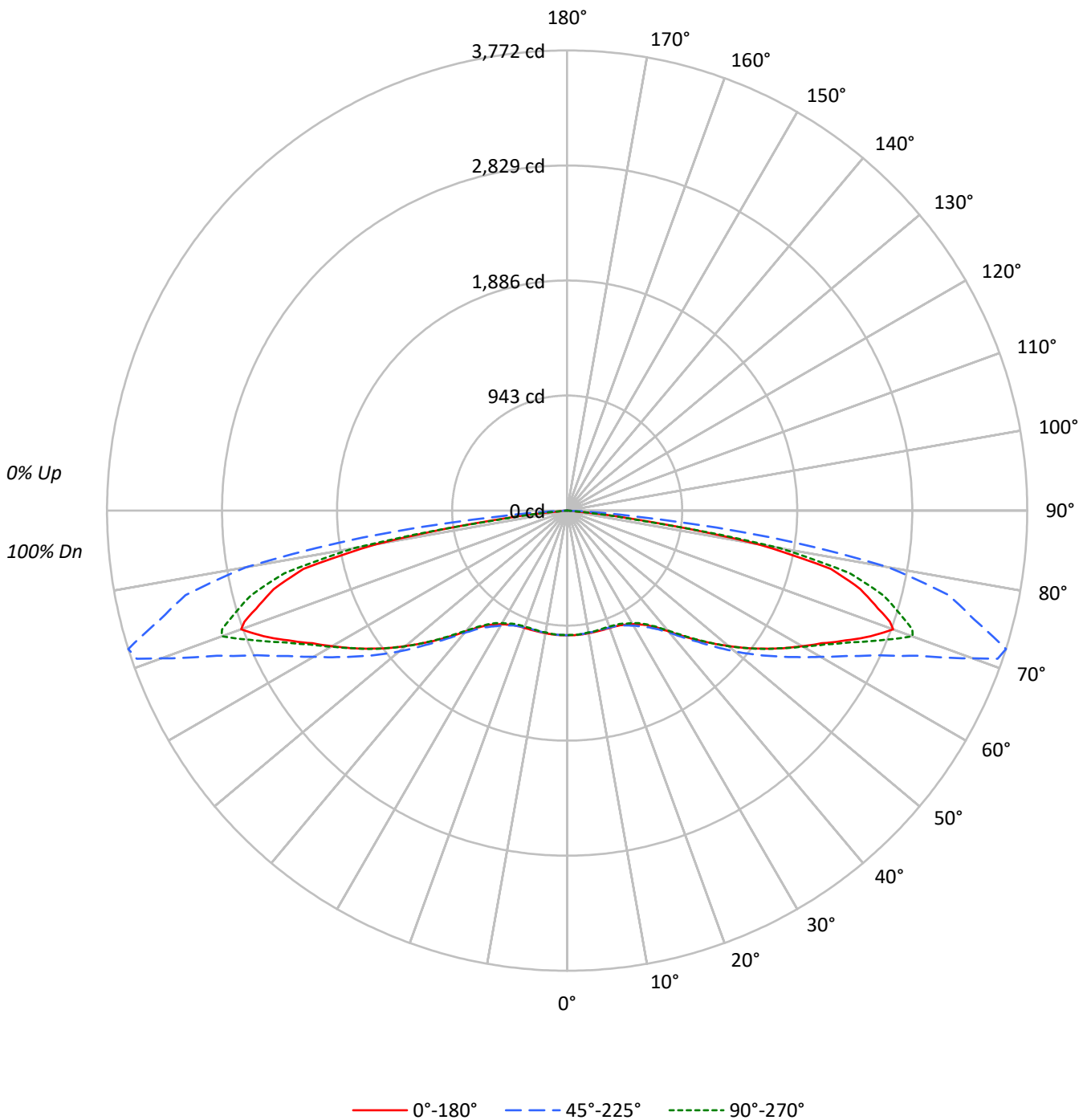
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 10776.1 lumens  
Efficiency: N/A  
Efficacy: 105.4 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): 102.2  
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						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°	16403	16403	16403
5°	16493	16466	16456
10°	16646	16583	16555
15°	16982	16878	16832
20°	17495	17421	17302
25°	18368	18419	18148
30°	19946	20204	19759
35°	22484	22915	22340
40°	27109	27423	26884
45°	34001	34598	33871
50°	43119	44883	43219
55°	55282	58288	55391
60°	71418	77034	71691
65°	95766	106607	97161
70°	133585	166438	141542
75°	154554	214405	166578
80°	147076	246967	163164
85°	11982	100147	7816



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	97.3	0.9
10°-20°	287.8	2.7
20°-30°	482.0	4.5
30°-40°	734.8	6.8
40°-50°	1173.3	10.9
50°-60°	1804.1	16.7
60°-70°	2626.8	24.4
70°-80°	2959.0	27.5
80°-90°	610.9	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°	867.2	8.0
0°-40°	1602.0	14.9
0°-60°	4579.4	42.5
0°-90°	10776.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	10776.1	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1021	1021	1021	1021	1021	
5°	1023	1022	1021	1020	1020	98
15°	1021	1018	1015	1011	1012	290
25°	1036	1038	1039	1029	1024	483
35°	1146	1155	1168	1148	1139	732
45°	1496	1496	1523	1498	1491	1167
55°	1974	1980	2081	1988	1978	1776
65°	2519	2529	2804	2566	2556	2510
75°	2490	2648	3454	2866	2684	2536
85°	65	171	543	138	42	404
90°	0	0	0	0	0	



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CATALOG NUMBER: TLM-F04-LED-E1-5XQ-7050

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1021.0	1021.0	1021.0	1021.0	1021.0	1021.0	1021.0	1021.0	1021.0	1021.0	1021.0
2.5°	1022.7	1023.2	1023.0	1022.4	1022.7	1022.4	1021.8	1021.6	1019.6	1020.8	1022.4
5°	1022.7	1022.2	1021.9	1021.6	1021.6	1022.4	1021.6	1020.7	1020.4	1021.0	1020.2
7.5°	1022.1	1021.0	1020.5	1020.2	1020.4	1020.7	1019.9	1018.8	1019.6	1018.7	1017.6
10°	1020.4	1019.6	1019.9	1018.8	1019.0	1018.8	1017.6	1016.8	1017.3	1016.5	1015.1
12.5°	1021.0	1019.6	1019.3	1018.8	1018.5	1018.2	1016.8	1015.4	1015.6	1015.1	1013.7
15°	1021.0	1020.2	1019.9	1018.8	1018.5	1017.9	1016.2	1015.6	1015.6	1014.8	1013.1
17.5°	1021.6	1021.0	1021.0	1019.6	1019.0	1018.8	1016.8	1015.9	1016.8	1015.1	1014.0
20°	1023.3	1022.7	1023.0	1022.1	1021.0	1021.0	1019.6	1019.0	1019.4	1019.0	1015.9
22.5°	1026.6	1026.6	1027.2	1026.9	1026.6	1027.0	1025.8	1025.8	1026.1	1026.1	1023.6
25°	1036.2	1036.0	1036.6	1036.6	1036.8	1038.8	1038.0	1037.6	1039.1	1039.1	1036.5
27.5°	1054.3	1053.8	1054.3	1054.9	1056.3	1058.8	1058.3	1059.2	1061.4	1060.8	1058.5
30°	1075.2	1074.7	1076.1	1077.8	1078.9	1082.8	1081.1	1085.4	1087.4	1089.1	1087.4
32.5°	1105.8	1105.7	1108.2	1109.4	1111.9	1115.9	1116.4	1119.8	1122.4	1125.2	1123.2
35°	1146.4	1145.8	1147.8	1149.8	1152.9	1156.5	1158.0	1162.4	1166.4	1168.4	1164.8
37.5°	1208.5	1205.4	1209.1	1210.2	1212.8	1213.6	1217.5	1223.2	1227.4	1226.9	1224.3
40°	1292.6	1292.1	1290.6	1289.0	1292.9	1294.3	1294.3	1302.0	1308.7	1307.6	1307.3
42.5°	1390.9	1388.4	1386.6	1386.7	1388.9	1389.5	1398.2	1403.9	1408.7	1409.8	1408.7
45°	1496.5	1494.0	1494.5	1493.4	1494.2	1497.9	1503.0	1513.4	1522.5	1522.8	1517.9
47.5°	1610.0	1602.1	1608.3	1599.6	1604.9	1607.8	1620.4	1635.7	1651.5	1654.4	1650.1
50°	1725.2	1724.4	1723.8	1722.1	1724.6	1730.8	1746.4	1770.4	1785.6	1795.8	1789.0
52.5°	1851.1	1846.9	1844.9	1842.1	1844.6	1856.8	1878.5	1899.4	1926.8	1938.4	1929.1
55°	1973.7	1972.3	1965.0	1964.6	1970.0	1989.0	2012.7	2038.4	2068.0	2081.0	2077.6
57.5°	2099.6	2091.4	2089.2	2085.8	2096.5	2114.3	2143.4	2189.7	2220.5	2235.2	2226.7
60°	2222.7	2216.5	2211.7	2210.6	2217.9	2242.8	2284.6	2340.2	2378.3	2397.5	2384.0
62.5°	2354.8	2350.9	2345.3	2338.8	2354.3	2386.2	2438.2	2499.7	2555.9	2579.6	2559.0
65°	2519.2	2511.0	2504.8	2496.6	2509.3	2549.4	2614.6	2701.3	2776.7	2804.4	2789.7
67.5°	2692.6	2685.0	2685.5	2680.4	2703.0	2758.6	2842.8	2960.5	3061.6	3108.8	3081.1
70°	2843.9	2848.1	2849.3	2869.9	2908.9	2993.6	3133.6	3318.0	3471.3	3543.3	3513.7
71°	2799.3	2808.6	2823.0	2844.5	2911.7	3011.9	3203.1	3426.4	3609.4	3731.4	3690.4
72.5°	2672.8	2678.4	2685.8	2718.5	2794.5	2927.2	3124.0	3379.2	3614.5	3772.3	3724.9
75°	2489.9	2495.2	2497.7	2520.6	2589.8	2705.6	2885.7	3112.2	3319.7	3454.1	3440.8
77.5°	2213.7	2214.5	2234.3	2269.6	2347.2	2479.7	2669.4	2904.3	3099.4	3203.9	3137.6
80°	1589.7	1579.0	1599.3	1644.7	1740.7	1892.6	2086.9	2355.2	2571.7	2669.4	2566.6
82.5°	604.8	637.6	689.2	764.4	796.8	965.7	1146.9	1304.5	1486.9	1690.8	1639.7
85°	65.0	73.2	91.8	113.8	143.7	198.8	274.7	375.0	462.2	543.3	482.3
87.5°	24.3	24.8	27.7	31.9	32.5	33.9	36.1	42.1	39.2	33.9	27.4
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°	1021.0	1021.0	1021.0	1021.0	1021.0	1021.0	1021.0	1021.0
2.5°	1021.0	1021.3	1021.0	1021.3	1021.3	1020.2	1020.4	1019.8
5°	1020.7	1019.9	1020.2	1020.4	1020.2	1020.8	1019.9	1020.4
7.5°	1019.3	1017.6	1018.2	1018.2	1017.6	1018.4	1017.9	1017.6
10°	1016.5	1014.2	1015.4	1014.8	1014.5	1014.8	1014.8	1014.8
12.5°	1013.9	1012.6	1012.8	1012.5	1012.2	1013.1	1012.8	1013.1
15°	1013.4	1011.1	1010.8	1010.3	1010.6	1011.2	1011.1	1012.0
17.5°	1012.8	1010.0	1009.7	1009.1	1009.4	1010.6	1010.8	1010.3
20°	1014.5	1012.2	1011.7	1011.1	1010.8	1012.2	1012.0	1012.0
22.5°	1022.4	1019.6	1019.3	1017.1	1016.2	1017.0	1016.5	1016.5
25°	1035.1	1031.8	1030.6	1027.5	1025.2	1025.2	1024.4	1023.8
27.5°	1058.0	1052.9	1051.8	1049.2	1046.1	1046.7	1045.0	1044.7
30°	1084.6	1080.0	1076.0	1072.4	1068.7	1067.3	1065.4	1065.1
32.5°	1119.2	1114.2	1109.4	1104.9	1099.8	1097.8	1094.4	1092.8
35°	1161.9	1155.2	1149.5	1146.4	1141.3	1138.7	1136.5	1139.1
37.5°	1221.5	1213.3	1210.5	1206.8	1203.4	1199.4	1200.3	1199.4
40°	1303.9	1296.6	1293.8	1287.3	1286.4	1281.9	1284.7	1281.9
42.5°	1405.9	1392.3	1390.3	1385.2	1383.6	1381.0	1382.2	1380.2
45°	1516.8	1504.7	1502.4	1494.2	1494.5	1488.6	1490.8	1490.8
47.5°	1641.6	1628.9	1618.5	1612.6	1610.3	1606.6	1608.6	1608.4
50°	1770.4	1753.2	1741.6	1730.0	1724.9	1726.4	1722.4	1729.2
52.5°	1908.8	1883.0	1866.6	1855.6	1846.1	1848.0	1848.6	1850.6
55°	2051.9	2019.2	1995.4	1981.0	1972.3	1972.8	1975.4	1977.6
57.5°	2195.9	2155.0	2122.8	2101.3	2095.7	2098.2	2098.2	2098.0
60°	2345.3	2296.1	2254.6	2230.4	2225.3	2223.8	2234.9	2231.2
62.5°	2505.7	2446.6	2403.7	2372.7	2365.3	2370.4	2380.3	2378.0
65°	2718.2	2636.6	2581.3	2550.6	2538.1	2543.2	2556.5	2555.9
67.5°	2992.4	2878.4	2805.2	2765.7	2756.7	2762.9	2770.2	2777.3
70°	3402.4	3239.5	3135.0	3049.4	3012.7	3005.7	3013.1	3013.3
71°	3546.7	3359.5	3193.2	3088.7	3028.6	3003.2	3005.2	2992.4
72.5°	3540.8	3310.1	3115.6	3006.3	2922.7	2902.3	2892.5	2877.2
75°	3302.2	3094.4	2925.5	2806.4	2725.9	2701.9	2684.4	2683.6
77.5°	2994.7	2841.4	2655.3	2529.1	2431.1	2391.3	2373.5	2373.0
80°	2407.4	2177.8	2041.7	1965.8	1847.5	1813.3	1777.2	1763.6
82.5°	1455.8	1137.6	925.0	822.0	764.9	629.9	565.3	534.8
85°	339.1	240.8	166.0	109.0	78.5	62.4	48.0	42.4
87.5°	22.9	18.1	16.1	13.0	9.9	9.6	5.9	5.1
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)