

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: P148395

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

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P148395
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
Description: TALON MEDIUM LED SITE LUMINAIRE
(4) LIGHTBARS WITH AccuLED OPTICS - TYPE 5 SQUARE EXTRA WIDE
Light Source: (28) 4000K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 10501.9 lumens
Efficiency: N/A
Efficacy: 102.8 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

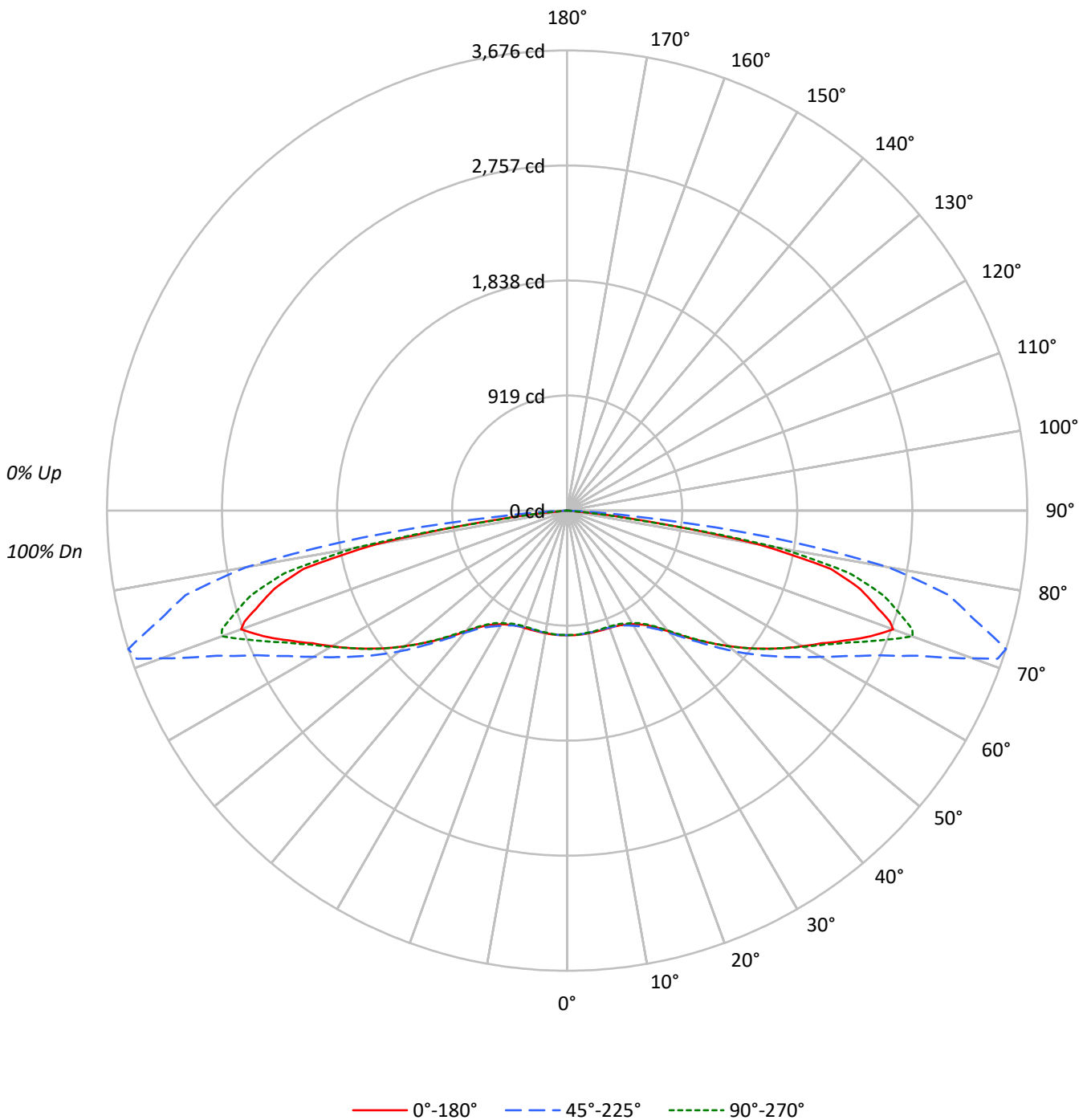
Input Watts (W): 102.2
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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°	15985	15985	15985
5°	16072	16046	16037
10°	16222	16160	16134
15°	16549	16449	16403
20°	17049	16979	16861
25°	17900	17950	17687
30°	19439	19690	19256
35°	21911	22333	21770
40°	26421	26727	26200
45°	33135	33717	33010
50°	42022	43741	42119
55°	53873	56803	53985
60°	69602	75074	69866
65°	93329	103893	94686
70°	130189	162205	137939
75°	150613	208948	162332
80°	143329	240685	159020
85°	11668	97585	7594



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	94.8	0.9
10°-20°	280.5	2.7
20°-30°	469.7	4.5
30°-40°	716.1	6.8
40°-50°	1143.5	10.9
50°-60°	1758.2	16.7
60°-70°	2559.9	24.4
70°-80°	2883.8	27.5
80°-90°	595.3	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°	845.1	8.0
0°-40°	1561.2	14.9
0°-60°	4462.9	42.5
0°-90°	10501.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	10501.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	995	995	995	995	995	
5°	997	996	995	994	994	95
15°	995	992	989	985	986	282
25°	1010	1011	1013	1003	998	471
35°	1117	1125	1139	1119	1110	713
45°	1458	1458	1484	1460	1453	1138
55°	1923	1929	2028	1938	1927	1731
65°	2455	2465	2733	2501	2491	2447
75°	2426	2580	3366	2793	2615	2471
85°	63	167	529	134	41	394
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°	995.0	995.0	995.0	995.0	995.0	995.0	995.0	995.0	995.0	995.0	995.0
2.5°	996.6	997.2	996.9	996.4	996.6	996.4	995.8	995.6	993.6	994.7	996.4
5°	996.6	996.1	995.8	995.6	995.6	996.4	995.6	994.7	994.4	995.0	994.2
7.5°	996.1	995.0	994.4	994.2	994.4	994.7	993.9	992.8	993.6	992.8	991.7
10°	994.4	993.6	993.9	992.8	993.1	992.8	991.7	990.9	991.4	990.6	989.2
12.5°	995.0	993.6	993.4	992.8	992.5	992.2	990.9	989.5	989.8	989.2	987.8
15°	995.0	994.2	993.9	992.8	992.5	992.0	990.3	989.8	989.8	989.0	987.3
17.5°	995.6	995.0	995.0	993.6	993.1	992.8	990.9	990.0	990.9	989.2	988.1
20°	997.2	996.6	996.9	996.1	995.0	995.0	993.6	993.1	993.4	993.1	990.0
22.5°	1000.5	1000.5	1001.0	1000.8	1000.5	1000.8	999.7	999.7	1000.0	1000.0	997.5
25°	1009.8	1009.6	1010.2	1010.2	1010.4	1012.4	1011.5	1011.2	1012.6	1012.6	1010.2
27.5°	1027.5	1027.0	1027.5	1028.1	1029.4	1031.9	1031.4	1032.2	1034.4	1033.8	1031.6
30°	1047.9	1047.4	1048.7	1050.4	1051.5	1055.3	1053.7	1057.8	1059.7	1061.4	1059.7
32.5°	1077.6	1077.6	1080.1	1081.2	1083.6	1087.5	1088.0	1091.4	1093.8	1096.6	1094.6
35°	1117.2	1116.6	1118.6	1120.5	1123.5	1127.1	1128.5	1132.9	1136.8	1138.7	1135.1
37.5°	1177.8	1174.7	1178.3	1179.4	1181.9	1182.7	1186.6	1192.0	1196.2	1195.6	1193.2
40°	1259.8	1259.2	1257.8	1256.2	1260.0	1261.4	1261.4	1268.8	1275.4	1274.4	1274.1
42.5°	1355.5	1353.0	1351.4	1351.4	1353.6	1354.1	1362.6	1368.2	1372.8	1374.0	1372.9
45°	1458.4	1456.0	1456.5	1455.4	1456.2	1459.8	1464.8	1475.0	1483.8	1484.0	1479.3
47.5°	1569.0	1561.4	1567.4	1558.8	1564.1	1566.8	1579.2	1594.1	1609.5	1612.2	1608.1
50°	1681.3	1680.5	1679.9	1678.3	1680.8	1686.8	1702.0	1725.4	1740.2	1750.1	1743.5
52.5°	1804.0	1799.9	1798.0	1795.2	1797.7	1809.6	1830.8	1851.1	1877.8	1889.1	1880.0
55°	1923.4	1922.1	1914.9	1914.7	1919.9	1938.3	1961.4	1986.5	2015.4	2028.0	2024.7
57.5°	2046.2	2038.2	2036.0	2032.7	2043.2	2060.5	2088.8	2134.0	2164.0	2178.3	2170.0
60°	2166.2	2160.1	2155.5	2154.4	2161.5	2185.7	2226.4	2280.6	2317.8	2336.5	2323.3
62.5°	2295.0	2291.2	2285.6	2279.3	2294.4	2325.5	2376.1	2436.1	2490.9	2514.0	2493.9
65°	2455.1	2447.1	2441.1	2433.1	2445.5	2484.6	2548.2	2632.6	2706.1	2733.0	2718.8
67.5°	2624.0	2616.6	2617.2	2612.2	2634.2	2688.4	2770.5	2885.2	2983.7	3029.7	3002.7
70°	2771.6	2775.7	2776.8	2796.9	2834.9	2917.4	3053.9	3233.6	3383.0	3453.2	3424.3
71°	2728.1	2737.2	2751.2	2772.1	2837.6	2935.3	3121.6	3339.2	3517.6	3636.4	3596.6
72.5°	2604.8	2610.3	2617.4	2649.4	2723.4	2852.7	3044.6	3293.3	3522.5	3676.3	3630.1
75°	2426.4	2431.7	2434.2	2456.5	2523.9	2636.7	2812.3	3033.0	3235.2	3366.2	3353.3
77.5°	2157.4	2158.2	2177.5	2211.8	2287.5	2416.6	2601.5	2830.4	3020.6	3122.4	3057.8
80°	1549.2	1538.8	1558.6	1602.9	1696.4	1844.5	2033.8	2295.2	2506.3	2601.5	2501.4
82.5°	589.4	621.3	671.7	744.9	776.5	941.1	1117.8	1271.3	1449.1	1647.8	1597.9
85°	63.3	71.3	89.4	110.9	140.0	193.8	267.8	365.4	450.4	529.4	470.0
87.5°	23.7	24.2	27.0	31.1	31.6	33.0	35.2	41.0	38.2	33.0	26.7
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°	995.0	995.0	995.0	995.0	995.0	995.0	995.0	995.0
2.5°	995.0	995.3	995.0	995.3	995.3	994.2	994.4	993.9
5°	994.7	993.9	994.2	994.4	994.2	994.7	993.9	994.4
7.5°	993.4	991.7	992.2	992.2	991.7	992.5	992.0	991.7
10°	990.6	988.4	989.5	989.0	988.7	989.0	989.0	989.0
12.5°	988.1	986.8	987.0	986.8	986.5	987.3	987.0	987.3
15°	987.6	985.4	985.1	984.6	984.8	985.4	985.4	986.2
17.5°	987.0	984.3	984.0	983.4	983.7	984.8	985.1	984.6
20°	988.7	986.5	985.9	985.4	985.1	986.5	986.2	986.2
22.5°	996.4	993.6	993.4	991.2	990.3	991.2	990.6	990.6
25°	1008.8	1005.4	1004.4	1001.3	999.1	999.1	998.3	997.8
27.5°	1031.1	1026.1	1025.0	1022.6	1019.5	1020.1	1018.4	1018.2
30°	1057.0	1052.6	1048.7	1045.1	1041.6	1040.2	1038.2	1038.0
32.5°	1090.8	1085.8	1081.2	1076.8	1071.8	1069.9	1066.6	1065.0
35°	1132.4	1125.8	1120.2	1117.2	1112.2	1109.8	1107.6	1110.0
37.5°	1190.4	1182.4	1179.7	1176.1	1172.8	1168.9	1169.8	1168.9
40°	1270.8	1263.6	1260.9	1254.5	1253.7	1249.3	1252.0	1249.3
42.5°	1370.1	1356.9	1354.9	1350.0	1348.4	1345.9	1347.0	1345.0
45°	1478.2	1466.4	1464.2	1456.2	1456.5	1450.8	1453.0	1452.9
47.5°	1599.9	1587.5	1577.3	1571.5	1569.3	1565.7	1567.7	1567.4
50°	1725.4	1708.6	1697.3	1686.0	1681.0	1682.4	1678.6	1685.2
52.5°	1860.2	1835.2	1819.2	1808.4	1799.1	1801.0	1801.6	1803.5
55°	1999.7	1967.8	1944.6	1930.6	1922.1	1922.7	1925.2	1927.4
57.5°	2140.1	2100.1	2068.8	2047.8	2042.4	2044.8	2044.8	2044.6
60°	2285.6	2237.7	2197.3	2173.6	2168.6	2167.2	2178.0	2174.4
62.5°	2441.9	2384.4	2342.6	2312.3	2305.1	2310.1	2319.7	2317.5
65°	2649.1	2569.6	2515.6	2485.7	2473.6	2478.5	2491.4	2490.8
67.5°	2916.3	2805.1	2733.8	2695.3	2686.5	2692.6	2699.8	2706.6
70°	3315.8	3157.1	3055.2	2971.9	2936.1	2929.2	2936.4	2936.6
71°	3456.5	3274.0	3112.0	3010.1	2951.5	2926.8	2928.7	2916.3
72.5°	3450.7	3225.9	3036.3	2929.8	2848.3	2828.5	2818.9	2804.0
75°	3218.2	3015.6	2851.1	2735.0	2656.5	2633.1	2616.1	2615.2
77.5°	2918.5	2769.1	2587.8	2464.8	2369.2	2330.5	2313.1	2312.5
80°	2346.2	2122.4	1989.8	1915.8	1800.4	1767.2	1732.0	1718.8
82.5°	1418.8	1108.7	901.4	801.0	745.4	613.9	550.9	521.2
85°	330.5	234.8	161.8	106.2	76.5	60.8	46.8	41.2
87.5°	22.3	17.6	15.7	12.6	9.6	9.4	5.8	5.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)