

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: P147345

Luminaire Tested: **TLM-F03-LED-E1-5MQ**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P147345  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (P33674)  
Test Lab: INNOVATION CENTER-P3  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: MCGRAW-EDISON  
Catalog Number: TLM-F03-LED-E1-5MQ  
Description: TALON MEDIUM LED SITE LUMINAIRE  
(3) LIGHTBARS WITH AccuLED OPTICS - TYPE 5 SQUARE MEDIUM  
Light Source: (21) 4000K CCT, 70 CRI LEDs  
Ballast/Driver: -

**Summary**

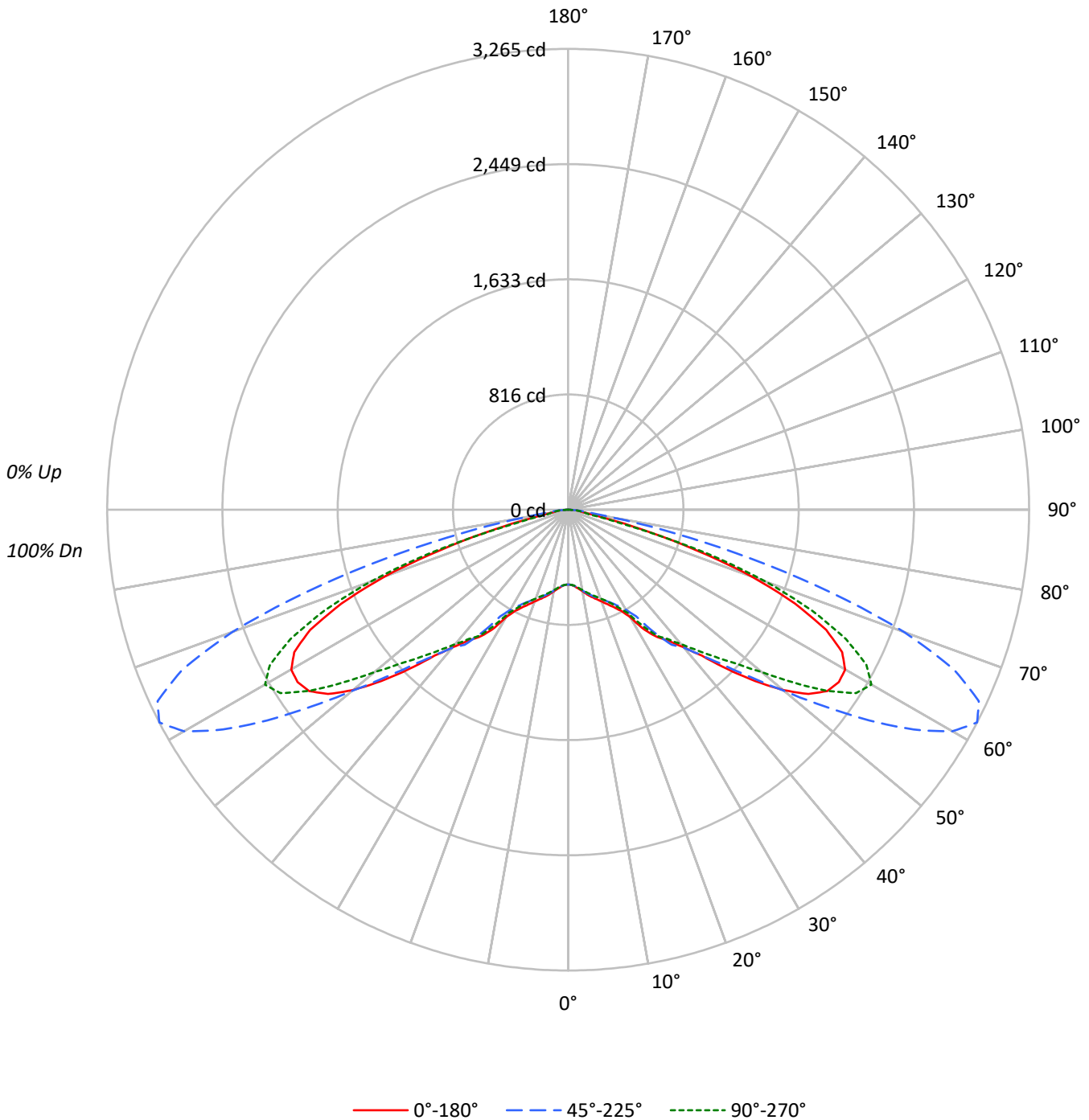
Lumens per Lamp: N/A  
Luminaire Lumens: 7983.9 lumens  
Efficiency: N/A  
Efficacy: 102.0 lumens/watt  
Spacing Criteria (0/90/45): 3.55 / 3.67 / 3.6  
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')  
CIE Type: Direct

Input Watts (W): 78.3  
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				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	94	90	103	97	93	88	93	89	85	89	86	83	85	83	80	78
2	93	82	73	66	90	80	72	65	76	70	64	73	67	62	70	65	61	58
3	82	68	58	50	79	67	57	49	63	55	48	60	53	47	57	51	46	44
4	73	57	46	38	70	56	46	38	53	44	37	51	43	36	48	41	36	33
5	65	49	38	30	63	48	37	30	46	36	29	43	35	29	41	34	28	26
6	59	43	32	24	57	42	31	24	40	30	23	38	29	23	36	29	23	20
7	54	37	27	20	52	37	27	19	35	26	19	33	25	19	32	24	19	16
8	49	33	23	16	47	33	23	16	31	22	16	30	22	16	28	21	16	13
9	46	30	20	14	44	29	20	14	28	20	14	27	19	14	26	19	13	11
10	42	27	18	12	41	27	18	12	25	17	12	24	17	12	23	17	12	10

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	11410	11410	11410
5°	11790	11730	11702
10°	12832	12696	12633
15°	14242	13974	13836
20°	15830	15450	15320
25°	18069	17335	17471
30°	21825	20359	21055
35°	28974	27910	28617
40°	35727	35831	34915
45°	48669	47287	44912
50°	66561	66909	59970
55°	84073	97675	83968
60°	97512	135208	106739
65°	102688	163454	110594
70°	87113	159341	93634
75°	44184	111857	38386
80°	14021	38841	14121
85°	15215	20205	15487



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	53.1	0.7
10°-20°	179.5	2.2
20°-30°	347.1	4.3
30°-40°	672.1	8.4
40°-50°	1213.6	15.2
50°-60°	2110.2	26.4
60°-70°	2395.6	30.0
70°-80°	928.8	11.6
80°-90°	83.8	1.0
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°	579.8	7.3
0°-40°	1251.9	15.7
0°-60°	4575.7	57.3
0°-90°	7983.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7983.9	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	530	530	530	530	530	
5°	546	545	543	542	542	53
15°	639	634	627	622	621	183
25°	761	745	730	730	736	358
35°	1102	1081	1062	1081	1089	689
45°	1599	1562	1553	1493	1475	1252
55°	2240	2348	2602	2316	2237	1972
65°	2016	2314	3209	2491	2171	1922
75°	531	743	1345	703	462	643
85°	62	88	82	88	63	60
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°	530.0	530.0	530.0	530.0	530.0	530.0	530.0	530.0	530.0	530.0	530.0
2.5°	533.3	535.0	534.6	533.8	533.8	533.7	533.3	532.0	531.6	532.4	533.2
5°	545.6	545.6	545.6	545.6	544.8	544.8	544.0	543.2	543.6	542.8	542.4
7.5°	564.7	563.4	563.4	563.0	563.0	562.2	561.0	559.3	559.8	559.3	558.9
10°	587.0	587.4	586.2	587.4	585.3	584.8	583.2	582.4	582.0	580.8	580.8
12.5°	613.8	612.6	612.6	611.8	610.9	610.0	607.6	607.2	605.6	604.7	603.4
15°	639.0	638.6	636.9	635.2	634.8	634.0	631.1	629.4	629.0	627.0	625.4
17.5°	664.2	663.3	661.2	660.4	658.8	657.5	655.0	652.6	651.3	650.5	648.4
20°	691.0	690.2	688.1	686.4	684.4	682.8	679.0	677.0	675.7	674.4	672.8
22.5°	724.4	722.8	719.4	716.6	712.1	710.4	705.4	702.5	700.4	698.8	698.0
25°	760.7	761.1	756.6	752.8	747.6	743.0	736.8	733.5	731.4	729.8	729.4
27.5°	806.1	806.5	802.4	797.0	788.8	783.8	775.6	771.4	770.2	768.6	768.2
30°	878.0	874.2	867.2	858.6	851.1	840.4	828.4	824.2	820.2	819.0	819.0
32.5°	1010.0	1008.0	1002.2	980.8	970.8	948.6	927.4	915.5	901.8	895.2	891.2
35°	1102.5	1101.6	1097.1	1089.6	1083.5	1079.0	1066.6	1064.5	1062.1	1062.0	1065.4
37.5°	1170.6	1165.6	1164.8	1166.0	1164.4	1165.2	1175.2	1188.8	1200.3	1206.1	1205.2
40°	1271.3	1264.3	1268.4	1265.6	1261.8	1261.0	1264.3	1269.6	1275.1	1275.0	1273.8
42.5°	1403.0	1406.3	1407.9	1396.0	1388.2	1386.0	1393.9	1392.2	1397.6	1395.6	1390.2
45°	1598.6	1596.6	1593.6	1579.2	1566.8	1556.9	1559.0	1556.1	1556.5	1553.2	1549.1
47.5°	1795.9	1802.9	1791.0	1784.0	1769.9	1763.0	1768.7	1763.7	1773.2	1755.8	1747.6
50°	1987.4	1992.4	1988.3	1978.4	1978.4	1988.2	1995.3	2004.4	2017.6	1997.8	1968.0
52.5°	2144.3	2148.4	2154.6	2162.9	2183.1	2204.2	2233.8	2265.6	2290.8	2287.1	2253.3
55°	2240.0	2245.0	2255.4	2283.8	2320.2	2375.4	2442.7	2516.6	2574.4	2602.4	2577.7
57.5°	2272.2	2276.0	2304.0	2338.3	2394.8	2477.0	2589.6	2717.2	2828.2	2898.8	2887.7
60°	2264.8	2264.8	2293.3	2340.4	2419.6	2528.6	2687.9	2864.6	3034.6	3140.3	3124.6
62.5°	2186.8	2191.0	2231.8	2288.4	2384.2	2514.6	2704.4	2930.2	3133.7	3265.0	3252.1
65°	2015.9	2018.8	2063.0	2130.2	2237.2	2391.6	2599.2	2849.3	3082.5	3208.8	3184.9
67.5°	1739.8	1742.6	1778.6	1854.6	1967.6	2129.0	2353.2	2628.4	2856.8	2956.6	2884.8
70°	1384.0	1392.2	1415.4	1495.8	1581.7	1739.8	1946.2	2221.5	2437.0	2531.5	2452.2
72.5°	943.2	964.2	992.3	1063.7	1145.8	1277.1	1441.4	1673.3	1846.3	1955.6	1885.1
75°	531.2	561.0	569.6	623.7	691.4	795.0	915.0	1081.4	1256.0	1344.8	1259.8
77.5°	229.5	253.8	264.6	289.8	342.6	385.9	459.0	571.2	706.2	768.6	666.6
80°	113.1	118.9	123.4	131.2	146.2	160.2	194.8	244.0	299.2	313.3	249.3
82.5°	87.5	91.6	99.5	105.7	109.4	113.1	116.4	123.0	128.4	131.3	123.8
85°	61.6	66.8	75.6	82.6	86.6	89.6	92.4	94.5	89.6	81.8	85.8
87.5°	16.1	21.0	29.3	31.8	35.9	38.0	37.2	38.4	34.7	25.2	28.0
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°	530.0	530.0	530.0	530.0	530.0	530.0	530.0	530.0
2.5°	532.9	532.4	532.9	532.9	532.8	532.5	532.4	532.5
5°	542.4	542.4	542.8	542.0	542.0	542.4	542.0	541.5
7.5°	558.4	558.0	558.0	557.7	558.0	557.6	557.6	557.2
10°	580.0	579.1	579.5	578.3	578.3	577.8	577.9	577.9
12.5°	603.0	601.8	602.2	601.0	598.9	599.4	599.8	599.3
15°	625.4	624.1	622.8	622.0	620.8	621.2	621.2	620.8
17.5°	648.0	645.6	645.2	643.9	643.5	643.5	643.5	643.9
20°	671.6	669.9	669.5	668.2	667.8	669.1	669.5	668.7
22.5°	696.8	695.9	696.8	695.9	697.2	698.0	698.4	697.6
25°	728.6	727.7	729.0	731.8	733.5	734.3	736.4	735.5
27.5°	769.3	768.6	771.4	775.6	778.0	782.2	784.2	785.1
30°	822.2	825.9	827.6	835.8	837.5	844.1	844.1	847.0
32.5°	899.0	906.0	918.4	931.2	949.0	961.7	961.8	968.3
35°	1067.4	1070.3	1079.8	1081.8	1085.6	1089.7	1085.6	1088.9
37.5°	1196.6	1183.8	1174.8	1162.0	1154.1	1154.1	1154.9	1154.1
40°	1262.6	1257.7	1253.6	1242.8	1241.2	1240.8	1240.8	1242.4
42.5°	1380.7	1368.8	1362.2	1353.1	1350.2	1349.4	1348.9	1349.7
45°	1534.2	1514.8	1497.1	1488.1	1480.2	1472.7	1475.2	1475.2
47.5°	1713.0	1682.8	1654.0	1638.3	1624.6	1618.4	1614.3	1613.1
50°	1930.5	1888.4	1851.2	1821.9	1802.1	1801.7	1803.8	1790.6
52.5°	2197.2	2130.6	2084.4	2044.8	2026.2	2024.2	2017.6	2010.2
55°	2492.7	2413.8	2337.5	2295.0	2270.6	2257.4	2249.6	2237.2
57.5°	2797.3	2691.2	2581.4	2513.4	2470.4	2440.7	2425.0	2418.0
60°	3032.1	2887.2	2742.4	2633.0	2561.6	2517.4	2490.2	2479.1
62.5°	3124.6	2928.1	2742.4	2598.8	2495.6	2434.5	2397.8	2381.6
65°	3014.4	2781.6	2570.2	2411.8	2296.6	2228.5	2188.4	2171.1
67.5°	2706.4	2501.0	2271.0	2113.3	1994.9	1927.6	1884.2	1871.5
70°	2269.0	2058.9	1839.2	1698.6	1592.8	1537.9	1492.9	1487.6
72.5°	1705.2	1523.9	1335.7	1219.3	1134.2	1043.5	1020.4	1031.9
75°	1093.0	923.4	755.8	650.9	573.4	486.6	453.2	461.5
77.5°	517.6	400.8	289.4	223.8	187.8	160.6	153.6	149.4
80°	191.9	155.6	137.4	130.4	125.5	120.9	117.6	113.9
82.5°	124.2	121.4	117.6	116.4	112.7	106.9	96.2	91.6
85°	92.9	92.9	88.0	88.3	85.4	78.0	68.1	62.7
87.5°	27.2	24.4	22.3	20.7	20.2	18.2	13.2	11.6
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)