

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: P147349

Luminaire Tested: **TLM-E04-LED-E1-5MQ-7030**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P147349  
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-E04-LED-E1-5MQ-7030  
Description: TALON MEDIUM LED SITE LUMINAIRE  
(4) LIGHTBARS WITH AccuLED OPTICS - TYPE 5 SQUARE MEDIUM  
Light Source: (84) 3000K CCT, 70 CRI LEDs  
Ballast/Driver: -

**Summary**

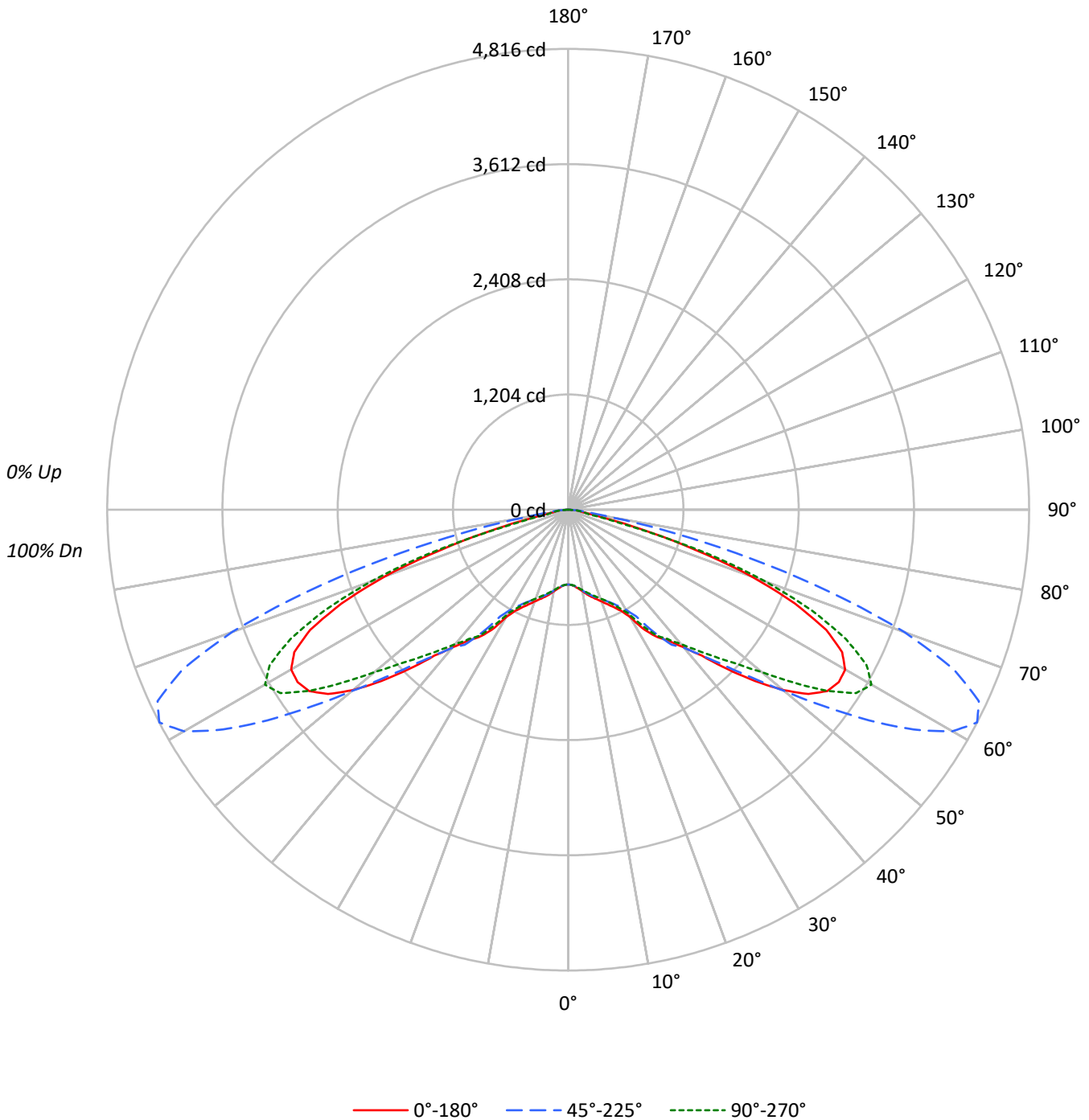
Lumens per Lamp: N/A  
Luminaire Lumens: 11777.7 lumens  
Efficiency: N/A  
Efficacy: 121.2 lumens/watt  
Spacing Criteria (0/90/45): 3.55 / 3.67 / 3.6  
Luminous Opening: Rectangular (W 0.67' x L: 1' x H: 0')  
CIE Type: Direct

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				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°	12560	12560	12560
5°	12982	12913	12884
10°	14124	13976	13907
15°	15678	15385	15232
20°	17427	17011	16864
25°	19893	19082	19235
30°	24025	22409	23179
35°	31898	30727	31503
40°	39331	39444	38438
45°	53581	52059	49444
50°	73279	73658	66018
55°	92557	107531	92437
60°	107350	148847	117507
65°	113051	179941	121752
70°	95899	175414	103081
75°	48646	123139	42259
80°	15432	42762	15552
85°	16719	22230	17069



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	78.3	0.7
10°-20°	264.8	2.2
20°-30°	512.1	4.3
30°-40°	991.5	8.4
40°-50°	1790.2	15.2
50°-60°	3113.0	26.4
60°-70°	3534.0	30.0
70°-80°	1370.1	11.6
80°-90°	123.6	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°	855.3	7.3
0°-40°	1846.8	15.7
0°-60°	6750.0	57.3
0°-90°	11777.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	11777.7	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	782	782	782	782	782	
5°	805	804	801	800	799	79
15°	943	936	925	918	916	269
25°	1122	1099	1076	1078	1085	529
35°	1626	1595	1567	1594	1606	1016
45°	2358	2304	2291	2202	2176	1847
55°	3304	3463	3839	3417	3300	2909
65°	2974	3414	4734	3675	3203	2835
75°	784	1096	1984	1038	681	949
85°	91	130	121	130	93	89
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°	781.8	781.8	781.8	781.8	781.8	781.8	781.8	781.8	781.8	781.8	781.8
2.5°	786.7	789.1	788.5	787.3	787.3	787.4	786.7	784.9	784.2	785.4	786.7
5°	805.0	805.0	805.0	805.0	803.8	803.8	802.6	801.4	801.9	800.7	800.0
7.5°	833.0	831.2	831.2	830.6	830.6	829.3	827.5	825.0	825.6	825.0	824.4
10°	865.8	866.4	864.6	866.4	863.4	862.8	860.4	859.2	858.6	856.7	856.8
12.5°	905.4	903.6	903.6	902.4	901.2	900.0	896.3	895.7	893.2	892.0	890.2
15°	942.6	942.0	939.5	937.1	936.4	935.3	931.0	928.6	928.0	925.0	922.5
17.5°	979.7	978.5	975.4	974.2	971.8	970.0	966.3	962.6	960.8	959.6	956.6
20°	1019.3	1018.0	1015.0	1012.6	1009.6	1007.2	1001.6	998.6	996.8	995.0	992.6
22.5°	1068.6	1066.2	1061.4	1057.0	1050.4	1047.9	1040.6	1036.4	1033.3	1030.8	1029.6
25°	1122.2	1122.8	1116.2	1110.6	1102.8	1096.0	1086.8	1082.0	1079.0	1076.5	1075.9
27.5°	1189.2	1189.8	1183.7	1175.8	1163.6	1156.3	1144.1	1138.0	1136.2	1133.8	1133.2
30°	1295.1	1289.6	1279.3	1266.5	1255.6	1239.8	1222.1	1216.0	1209.8	1208.0	1208.0
32.5°	1490.0	1486.9	1478.4	1446.8	1432.2	1399.2	1368.2	1350.6	1330.4	1320.7	1314.6
35°	1626.4	1625.2	1618.4	1607.5	1598.4	1591.7	1573.4	1570.4	1566.7	1566.7	1571.6
37.5°	1726.8	1719.5	1718.3	1720.2	1717.7	1719.0	1733.6	1753.6	1770.6	1779.2	1778.0
40°	1875.4	1865.1	1871.2	1866.8	1861.4	1860.2	1865.0	1873.0	1880.9	1880.8	1879.1
42.5°	2069.6	2074.6	2077.0	2059.3	2047.7	2044.7	2056.2	2053.8	2061.8	2058.6	2050.8
45°	2358.3	2355.2	2351.0	2329.6	2311.4	2296.8	2299.8	2295.6	2296.2	2291.3	2285.2
47.5°	2649.4	2659.6	2642.0	2631.6	2611.0	2600.6	2609.1	2601.8	2615.8	2590.2	2578.0
50°	2931.9	2939.2	2933.0	2918.4	2918.5	2933.0	2943.4	2956.8	2976.3	2947.1	2903.2
52.5°	3163.2	3169.4	3178.5	3190.6	3220.4	3251.5	3295.4	3342.2	3379.4	3373.9	3324.0
55°	3304.5	3311.8	3327.0	3369.0	3422.6	3504.2	3603.4	3712.4	3797.7	3839.1	3802.6
57.5°	3352.0	3357.5	3398.9	3449.4	3532.8	3654.0	3820.2	4008.4	4172.2	4276.3	4259.9
60°	3341.0	3341.0	3383.0	3452.4	3569.4	3730.1	3965.2	4225.8	4476.6	4632.5	4609.4
62.5°	3226.0	3232.0	3292.3	3375.8	3517.0	3709.4	3989.5	4322.5	4622.8	4816.4	4797.5
65°	2973.9	2978.1	3043.3	3142.6	3300.2	3528.0	3834.2	4203.2	4547.2	4733.5	4698.2
67.5°	2566.5	2570.8	2623.8	2735.8	2902.6	3140.7	3471.4	3877.5	4214.2	4361.5	4255.6
70°	2041.6	2053.8	2087.9	2206.6	2333.3	2566.6	2871.0	3277.1	3595.0	3734.4	3617.5
72.5°	1391.4	1422.4	1463.8	1569.2	1690.3	1884.0	2126.3	2468.5	2723.6	2885.0	2780.8
75°	783.7	827.5	840.2	920.0	1019.9	1172.7	1349.9	1595.3	1852.9	1983.8	1858.4
77.5°	338.6	374.5	390.4	427.4	505.4	569.3	677.1	842.8	1041.9	1133.8	983.4
80°	166.8	175.4	182.0	193.6	215.6	236.2	287.4	359.8	441.4	462.2	367.8
82.5°	129.1	135.1	146.8	155.9	161.4	166.8	171.7	181.4	189.4	193.6	182.7
85°	90.7	98.6	111.4	121.8	127.8	132.1	136.4	139.4	132.1	120.6	126.6
87.5°	23.8	31.0	43.2	46.9	53.0	56.0	54.8	56.6	51.2	37.2	41.4
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°	781.8	781.8	781.8	781.8	781.8	781.8	781.8	781.8
2.5°	786.1	785.5	786.1	786.1	786.1	785.5	785.4	785.5
5°	800.1	800.1	800.7	799.5	799.5	800.1	799.4	798.9
7.5°	823.8	823.2	823.2	822.6	823.2	822.6	822.6	822.0
10°	855.5	854.3	854.9	853.0	853.0	852.4	852.4	852.5
12.5°	889.6	887.8	888.4	886.6	883.6	884.1	884.8	884.1
15°	922.4	920.6	918.8	917.6	915.8	916.4	916.4	915.8
17.5°	956.0	952.4	951.7	949.9	949.2	949.2	949.2	949.9
20°	990.7	988.2	987.6	985.8	985.2	987.0	987.6	986.4
22.5°	1027.8	1026.6	1027.8	1026.6	1028.4	1029.6	1030.2	1029.0
25°	1074.7	1073.4	1075.4	1079.6	1082.0	1083.2	1086.2	1085.1
27.5°	1135.0	1133.8	1138.0	1144.1	1147.8	1153.9	1156.9	1158.1
30°	1212.9	1218.4	1220.8	1233.0	1235.4	1245.2	1245.2	1249.5
32.5°	1326.2	1336.5	1354.8	1373.7	1399.9	1418.7	1418.8	1428.5
35°	1574.6	1578.9	1592.8	1595.9	1601.4	1607.5	1601.4	1606.3
37.5°	1765.2	1746.4	1733.0	1714.0	1702.5	1702.5	1703.7	1702.5
40°	1862.6	1855.3	1849.2	1833.4	1831.0	1830.4	1830.4	1832.8
42.5°	2036.8	2019.1	2009.4	1996.0	1991.8	1990.5	1989.8	1991.1
45°	2263.3	2234.7	2208.5	2195.0	2183.5	2172.6	2176.2	2176.2
47.5°	2526.9	2482.4	2439.9	2416.7	2396.6	2387.5	2381.4	2379.6
50°	2847.8	2785.7	2730.9	2687.7	2658.4	2657.9	2660.9	2641.4
52.5°	3241.1	3143.2	3075.0	3016.5	2989.1	2986.0	2976.4	2965.3
55°	3677.2	3560.8	3448.2	3385.5	3349.6	3330.0	3318.5	3300.2
57.5°	4126.5	3970.0	3808.1	3707.6	3644.2	3600.4	3577.3	3566.9
60°	4473.0	4259.2	4045.6	3884.2	3778.8	3713.6	3673.4	3657.1
62.5°	4609.4	4319.6	4045.6	3833.6	3681.4	3591.3	3537.1	3513.4
65°	4446.8	4103.4	3791.6	3557.8	3387.9	3287.4	3228.4	3202.8
67.5°	3992.6	3689.3	3350.2	3117.6	2942.8	2843.6	2779.6	2760.8
70°	3347.1	3037.2	2713.2	2505.6	2349.8	2268.8	2202.4	2194.5
72.5°	2515.4	2248.0	1970.4	1798.7	1673.2	1539.3	1505.2	1522.3
75°	1612.4	1362.2	1114.9	960.2	845.8	717.9	668.6	680.8
77.5°	763.6	591.2	426.8	330.0	277.0	236.8	226.5	220.4
80°	283.2	229.6	202.8	192.4	185.1	178.4	173.6	168.1
82.5°	183.2	179.0	173.5	171.7	166.2	157.7	141.8	135.2
85°	137.0	137.0	129.7	130.3	126.0	115.0	100.4	92.6
87.5°	40.2	36.0	32.9	30.4	29.8	26.8	19.5	17.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)