

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: P147357

Luminaire Tested: **TLM-F04-LED-E1-5MQ-7060**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P147357
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-F04-LED-E1-5MQ-7060
Description: TALON MEDIUM LED SITE LUMINAIRE
(4) LIGHTBARS WITH AccuLED OPTICS - TYPE 5 SQUARE MEDIUM
Light Source: (28) 5700K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

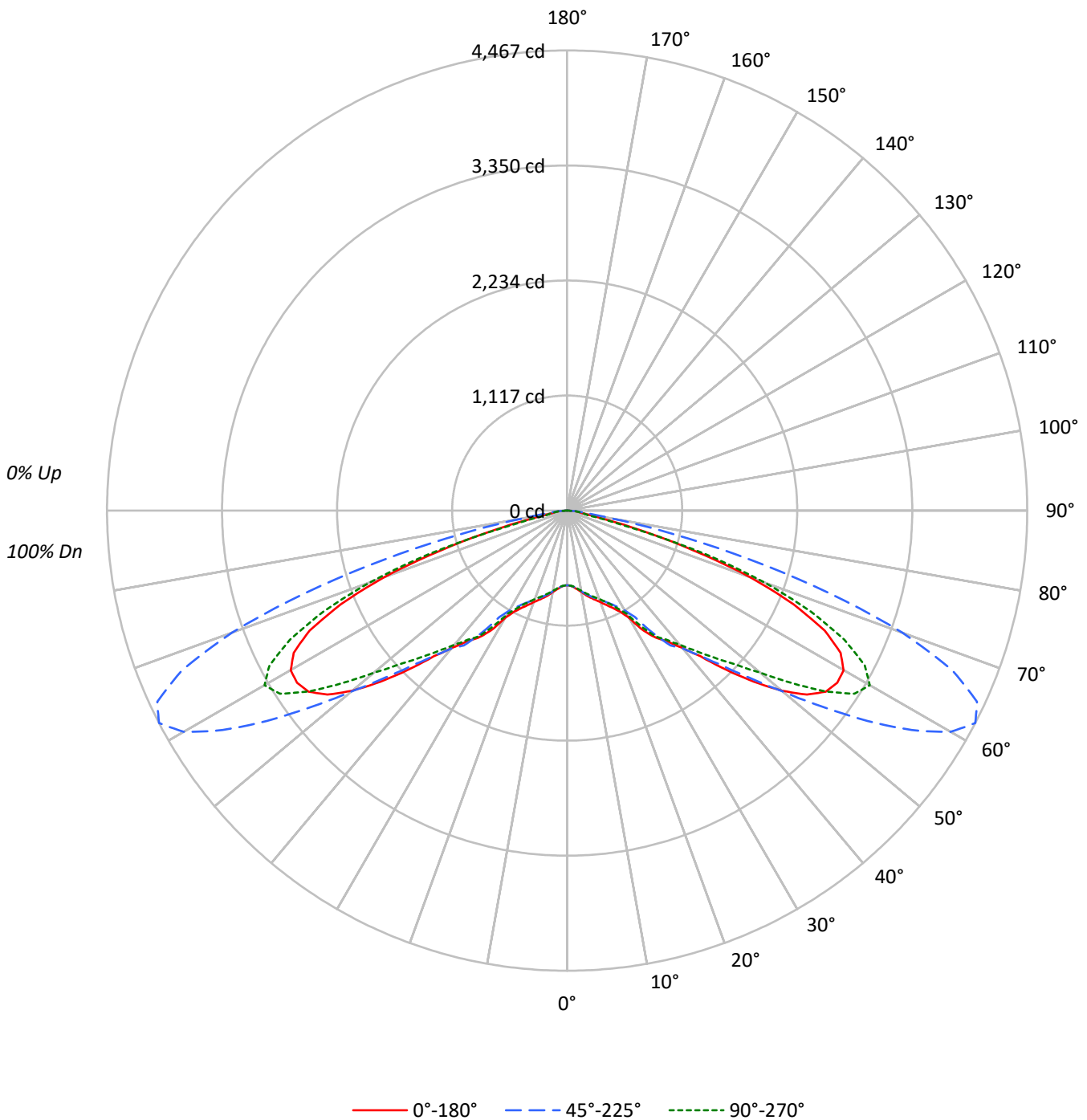
Lumens per Lamp: N/A
Luminaire Lumens: 10923.1 lumens
Efficiency: N/A
Efficacy: 106.9 lumens/watt
Spacing Criteria (0/90/45): 3.55 / 3.67 / 3.6
Luminous Opening: Rectangular (W 0.67' x L: 1' x H: 0')
CIE Type: Direct

Input Watts (W): 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					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	106	100	94	90	103	97	93	88	93	89	85	89	86	83	85	83	80	78					78			
2	93	82	73	66	90	80	72	65	76	70	64	73	67	62	70	65	61	58					58			
3	82	68	58	50	79	67	57	49	63	55	48	60	53	47	57	51	46	44					44			
4	73	57	46	38	70	56	46	38	53	44	37	51	43	36	48	41	36	33					33			
5	65	49	38	30	63	48	37	30	46	36	29	43	35	29	41	34	28	26					26			
6	59	43	32	24	57	42	31	24	40	30	23	38	29	23	36	29	23	20					20			
7	54	37	27	20	52	37	27	19	35	26	19	33	25	19	32	24	19	16					16			
8	49	33	23	16	47	33	23	16	31	22	16	30	22	16	28	21	16	13					13			
9	46	30	20	14	44	29	20	14	28	20	14	27	19	14	26	19	13	11					11			
10	42	27	18	12	41	27	18	12	25	17	12	24	17	12	23	17	12	10					10			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	11649	11649	11649
5°	12040	11976	11948
10°	13101	12963	12897
15°	14540	14267	14126
20°	16163	15777	15640
25°	18450	17698	17838
30°	22283	20784	21497
35°	29583	28497	29217
40°	36479	36584	35648
45°	49693	48280	45856
50°	67960	68312	61227
55°	85840	99728	85731
60°	99561	138048	108979
65°	104847	166887	112918
70°	88942	162685	95598
75°	45114	114201	39193
80°	14313	39653	14424
85°	15521	20608	15816



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	72.7	0.7
10°-20°	245.6	2.2
20°-30°	474.9	4.3
30°-40°	919.6	8.4
40°-50°	1660.3	15.2
50°-60°	2887.1	26.4
60°-70°	3277.6	30.0
70°-80°	1270.7	11.6
80°-90°	114.6	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°	793.2	7.3
0°-40°	1712.8	15.7
0°-60°	6260.2	57.3
0°-90°	10923.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	10923.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	725	725	725	725	725	
5°	747	745	743	742	741	73
15°	874	868	858	852	849	250
25°	1041	1020	998	999	1006	490
35°	1508	1479	1453	1479	1490	942
45°	2187	2137	2125	2042	2018	1713
55°	3065	3212	3560	3169	3061	2698
65°	2758	3166	4390	3408	2970	2629
75°	727	1017	1840	962	631	880
85°	84	121	112	120	86	82
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°	725.1	725.1	725.1	725.1	725.1	725.1	725.1	725.1	725.1	725.1	725.1
2.5°	729.6	731.9	731.3	730.2	730.2	730.2	729.6	728.0	727.3	728.4	729.6
5°	746.6	746.6	746.6	746.6	745.4	745.4	744.3	743.2	743.7	742.6	742.0
7.5°	772.6	770.8	770.8	770.3	770.3	769.1	767.4	765.2	765.8	765.2	764.7
10°	803.1	803.6	801.9	803.6	800.8	800.2	798.0	796.8	796.2	794.6	794.6
12.5°	839.8	838.0	838.0	837.0	835.8	834.6	831.2	830.7	828.4	827.4	825.6
15°	874.2	873.6	871.4	869.1	868.5	867.4	863.5	861.2	860.6	857.8	855.6
17.5°	908.6	907.5	904.7	903.6	901.3	899.6	896.2	892.8	891.1	890.0	887.2
20°	945.4	944.2	941.4	939.1	936.3	934.0	929.0	926.1	924.4	922.8	920.5
22.5°	991.1	988.8	984.3	980.4	974.1	971.9	965.1	961.2	958.4	956.1	954.9
25°	1040.8	1041.3	1035.1	1030.0	1022.8	1016.5	1008.0	1003.5	1000.7	998.4	997.8
27.5°	1102.9	1103.4	1097.8	1090.4	1079.2	1072.4	1061.1	1055.4	1053.8	1051.5	1050.9
30°	1201.2	1196.0	1186.5	1174.6	1164.4	1149.8	1133.4	1127.8	1122.1	1120.4	1120.4
32.5°	1381.9	1379.0	1371.2	1341.8	1328.2	1297.8	1268.9	1252.6	1234.0	1224.9	1219.2
35°	1508.4	1507.2	1501.0	1490.8	1482.4	1476.2	1459.2	1456.4	1453.0	1453.0	1457.6
37.5°	1601.5	1594.8	1593.6	1595.3	1593.1	1594.2	1607.8	1626.4	1642.2	1650.1	1649.0
40°	1739.4	1729.8	1735.4	1731.4	1726.4	1725.2	1729.8	1737.1	1744.4	1744.4	1742.7
42.5°	1919.4	1924.0	1926.2	1909.9	1899.2	1896.3	1907.0	1904.8	1912.2	1909.3	1902.0
45°	2187.2	2184.3	2180.4	2160.6	2143.7	2130.2	2132.9	2129.0	2129.6	2125.0	2119.4
47.5°	2457.0	2466.6	2450.3	2440.7	2421.5	2411.9	2419.8	2413.0	2426.0	2402.3	2391.0
50°	2719.1	2725.8	2720.2	2706.7	2706.7	2720.2	2729.8	2742.2	2760.3	2733.2	2692.6
52.5°	2933.7	2939.4	2947.8	2959.1	2986.8	3015.6	3056.2	3099.8	3134.2	3129.1	3082.8
55°	3064.7	3071.5	3085.6	3124.6	3174.3	3250.0	3342.0	3443.0	3522.2	3560.5	3526.6
57.5°	3108.8	3113.8	3152.2	3199.1	3276.5	3388.8	3543.0	3717.6	3869.4	3966.0	3950.8
60°	3098.6	3098.6	3137.6	3202.0	3310.4	3459.4	3677.4	3919.2	4151.8	4296.4	4274.9
62.5°	2991.9	2997.6	3053.4	3130.8	3261.8	3440.3	3700.0	4008.9	4287.3	4466.9	4449.4
65°	2758.1	2762.0	2822.4	2914.5	3060.8	3272.0	3556.0	3898.2	4217.3	4390.1	4357.4
67.5°	2380.3	2384.2	2433.4	2537.3	2692.0	2912.8	3219.4	3596.2	3908.4	4045.0	3946.8
70°	1893.5	1904.8	1936.5	2046.5	2164.0	2380.3	2662.6	3039.4	3334.0	3463.4	3355.0
72.5°	1290.4	1319.2	1357.6	1455.2	1567.6	1747.2	1972.0	2289.4	2526.0	2675.6	2579.0
75°	726.8	767.4	779.3	853.3	945.9	1087.6	1252.0	1479.6	1718.4	1839.8	1723.5
77.5°	314.0	347.3	362.0	396.5	468.7	528.0	628.0	781.6	966.2	1051.5	912.0
80°	154.7	162.6	168.8	179.6	199.9	219.1	266.6	333.8	409.4	428.6	341.0
82.5°	119.7	125.4	136.1	144.6	149.6	154.7	159.2	168.3	175.6	179.6	169.4
85°	84.2	91.4	103.4	113.0	118.6	122.6	126.5	129.4	122.6	111.8	117.5
87.5°	22.0	28.8	40.1	43.4	49.1	52.0	50.8	52.6	47.4	34.4	38.4
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°	725.1	725.1	725.1	725.1	725.1	725.1	725.1	725.1
2.5°	729.0	728.5	729.0	729.0	729.0	728.5	728.4	728.5
5°	742.1	742.0	742.6	741.5	741.4	742.0	741.4	740.9
7.5°	764.1	763.5	763.5	763.0	763.5	763.0	763.0	762.4
10°	793.4	792.3	792.8	791.2	791.2	790.6	790.6	790.6
12.5°	825.0	823.4	824.0	822.2	819.4	820.0	820.6	820.0
15°	855.6	853.8	852.2	851.0	849.3	849.9	849.9	849.3
17.5°	886.6	883.2	882.6	881.0	880.4	880.4	880.4	881.0
20°	918.8	916.6	916.0	914.2	913.7	915.4	916.0	914.8
22.5°	953.2	952.1	953.2	952.2	953.8	954.9	955.5	954.4
25°	996.8	995.6	997.3	1001.2	1003.5	1004.6	1007.4	1006.3
27.5°	1052.6	1051.5	1055.4	1061.1	1064.5	1070.2	1073.0	1074.1
30°	1124.9	1130.0	1132.2	1143.6	1145.8	1154.8	1154.8	1158.8
32.5°	1230.0	1239.6	1256.4	1274.0	1298.3	1315.8	1315.8	1324.8
35°	1460.4	1464.3	1477.3	1480.1	1485.2	1490.8	1485.2	1489.7
37.5°	1637.1	1619.6	1607.2	1589.7	1579.0	1579.0	1580.1	1578.9
40°	1727.4	1720.7	1715.0	1700.4	1698.1	1697.6	1697.6	1699.8
42.5°	1889.0	1872.6	1863.6	1851.2	1847.2	1846.1	1845.5	1846.6
45°	2099.0	2072.5	2048.2	2035.8	2025.0	2014.9	2018.3	2018.3
47.5°	2343.6	2302.4	2262.8	2241.4	2222.7	2214.2	2208.6	2206.9
50°	2641.2	2583.6	2532.8	2492.6	2465.6	2465.0	2467.8	2449.7
52.5°	3006.0	2915.0	2851.8	2797.6	2772.2	2769.4	2760.4	2750.2
55°	3410.3	3302.4	3198.0	3139.8	3106.5	3088.4	3077.7	3060.8
57.5°	3827.0	3682.0	3531.8	3438.6	3379.8	3339.2	3317.7	3308.1
60°	4148.4	3950.2	3752.0	3602.4	3504.6	3444.2	3407.0	3391.7
62.5°	4274.9	4006.1	3752.0	3555.4	3414.3	3330.7	3280.4	3258.4
65°	4124.1	3805.6	3516.5	3299.6	3142.1	3048.9	2994.1	2970.4
67.5°	3702.8	3421.6	3107.0	2891.4	2729.2	2637.2	2578.0	2560.4
70°	3104.2	2816.9	2516.4	2323.8	2179.2	2104.2	2042.6	2035.2
72.5°	2332.8	2084.9	1827.4	1668.2	1551.8	1427.6	1396.0	1411.8
75°	1495.4	1263.2	1034.0	890.6	784.4	665.8	620.0	631.4
77.5°	708.2	548.3	395.9	306.1	257.0	219.7	210.1	204.4
80°	262.6	212.9	188.0	178.4	171.6	165.4	161.0	155.9
82.5°	170.0	166.0	161.0	159.2	154.2	146.2	131.6	125.4
85°	127.0	127.0	120.2	120.8	116.9	106.8	93.2	85.8
87.5°	37.2	33.3	30.5	28.2	27.7	24.8	18.1	15.8
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)