

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: P147877

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

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P147877
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (P33675)
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-E1-5WQ-7060
Description: TALON MEDIUM LED SITE LUMINAIRE
(4) LIGHTBARS WITH AccuLED OPTICS - TYPE 5 SQUARE WIDE
Light Source: (28) 5700K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

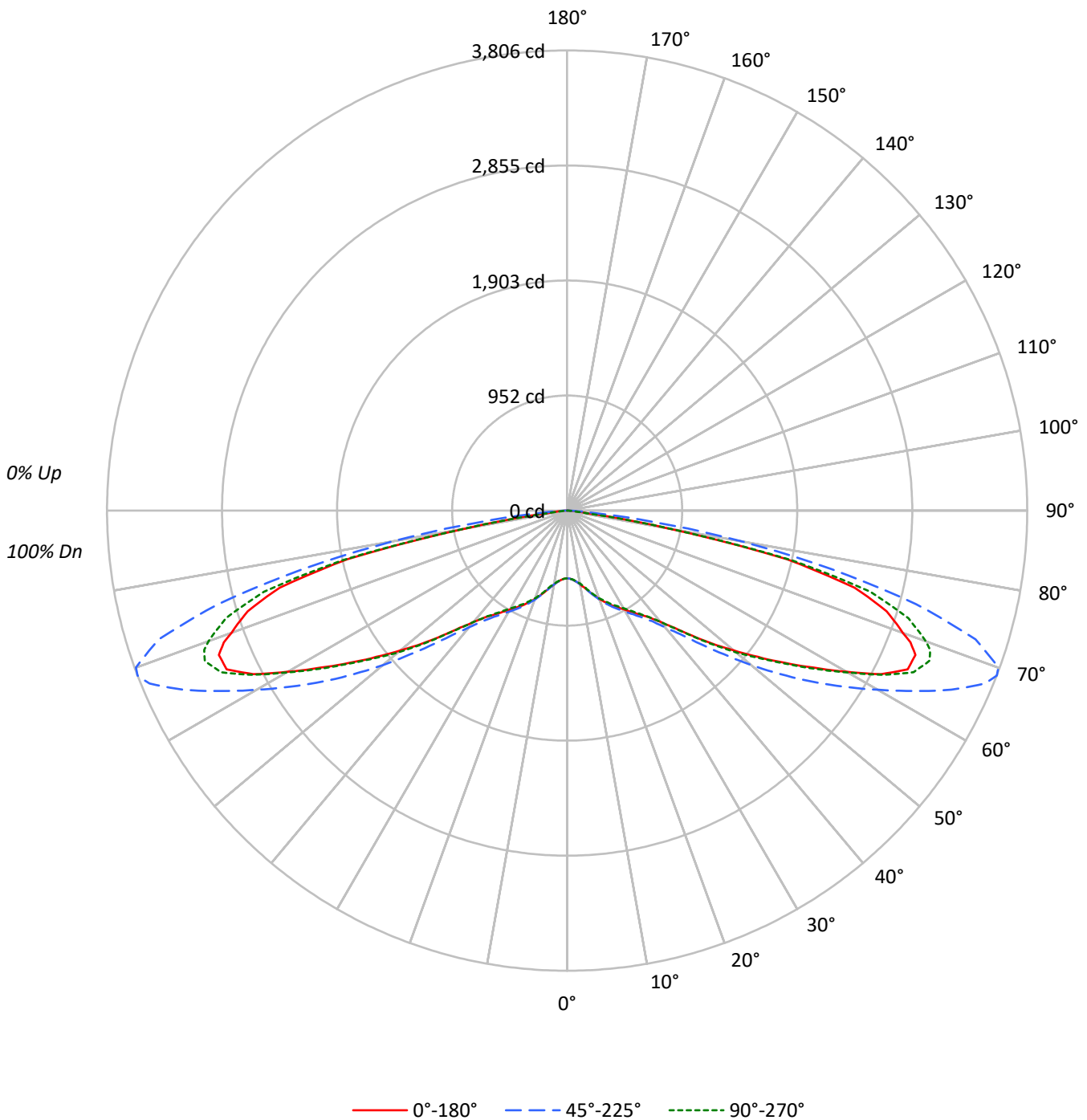
Lumens per Lamp: N/A
Luminaire Lumens: 10787.7 lumens
Efficiency: N/A
Efficacy: 105.6 lumens/watt
Spacing Criteria (0/90/45): 3.9 / 3.92 / 3.98
Luminous Opening: Rectangular (W 0.67' x L: 1' x H: 0')
CIE Type: Direct

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	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	103	96	90	84	100	94	88	82	89	84	80	85	81	77	81	78	75	72
2	89	77	67	58	86	75	65	58	71	63	56	67	60	55	64	58	53	51
3	78	63	51	42	75	61	50	42	58	48	41	54	46	40	52	45	39	36
4	69	52	41	31	66	51	40	31	48	38	31	45	37	30	43	36	29	27
5	62	45	33	24	59	44	32	24	41	31	24	39	30	23	37	29	23	20
6	56	39	28	19	54	38	27	19	36	26	19	34	25	19	32	24	18	16
7	51	34	24	16	49	34	23	16	32	22	16	30	22	15	29	21	15	13
8	47	31	20	13	45	30	20	13	29	20	13	27	19	13	26	18	13	10
9	44	28	18	11	42	27	18	11	26	17	11	25	17	11	23	16	11	9
10	41	25	16	10	39	25	16	10	24	15	10	23	15	10	22	15	10	7

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	9000	9000	9000
5°	9289	9289	9254
10°	10116	10096	10005
15°	11478	11534	11365
20°	13286	13400	13170
25°	15296	15535	15076
30°	17516	17915	17306
35°	20601	21154	20422
40°	25179	26339	25179
45°	33255	35412	33385
50°	44968	49625	45588
55°	61467	69060	61814
60°	85645	95224	85970
65°	118114	133312	120175
70°	138785	178308	148226
75°	152692	185361	161177
80°	77225	135113	79519
85°	9991	36645	7705



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	56.3	0.5
10°-20°	198.6	1.8
20°-30°	402.2	3.7
30°-40°	674.3	6.3
40°-50°	1189.5	11.0
50°-60°	2097.6	19.4
60°-70°	3202.4	29.7
70°-80°	2676.0	24.8
80°-90°	290.8	2.7
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°	657.1	6.1
0°-40°	1331.4	12.3
0°-60°	4618.5	42.8
0°-90°	10787.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	10787.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	560	560	560	560	560	
5°	576	577	576	574	574	56
15°	690	694	694	687	683	199
25°	863	867	876	861	850	401
35°	1050	1057	1079	1055	1041	667
45°	1464	1497	1559	1511	1469	1150
55°	2194	2298	2466	2317	2207	1988
65°	3107	3275	3507	3301	3161	2974
75°	2460	2598	2986	2764	2597	2369
85°	54	90	199	78	42	178
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°	560.2	560.2	560.2	560.2	560.2	560.2	560.2	560.2	560.2	560.2	560.2
2.5°	564.7	565.8	564.7	564.7	564.7	564.7	564.7	563.6	563.6	563.6	564.7
5°	576.0	577.1	576.0	577.1	577.1	577.1	577.1	576.0	576.0	576.0	576.0
7.5°	594.1	594.1	594.1	595.2	594.1	594.1	595.2	594.1	594.1	594.1	594.1
10°	620.1	618.9	618.9	618.9	618.9	618.9	620.1	620.1	620.1	618.9	618.9
12.5°	651.7	650.6	651.7	651.7	652.8	652.8	652.8	652.8	652.8	652.8	651.7
15°	690.1	690.1	690.1	691.2	693.5	693.5	692.3	693.5	693.5	693.5	693.5
17.5°	733.0	735.3	733.0	734.1	735.3	734.1	736.4	737.5	738.6	737.5	734.1
20°	777.1	778.2	778.2	778.2	778.2	780.4	781.6	781.6	785.0	783.8	782.7
22.5°	818.8	821.1	821.1	822.2	822.2	825.6	825.6	825.6	827.9	830.1	827.9
25°	862.9	861.8	861.8	864.0	865.1	869.7	869.7	871.9	875.3	876.4	874.2
27.5°	902.4	901.3	901.3	904.7	905.8	911.5	911.5	916.0	918.2	919.4	917.1
30°	944.2	944.2	943.1	946.5	949.9	954.4	956.6	961.1	964.5	965.7	963.4
32.5°	993.9	991.6	992.8	995.0	997.3	1001.8	1005.2	1010.8	1015.4	1016.5	1014.2
35°	1050.4	1047.0	1048.1	1050.4	1053.8	1060.5	1066.2	1069.6	1076.4	1078.6	1074.1
37.5°	1112.5	1113.6	1112.5	1118.1	1123.8	1131.7	1138.5	1143.0	1149.8	1153.2	1149.8
40°	1200.6	1197.2	1200.6	1206.2	1215.3	1225.4	1239.0	1242.4	1249.2	1255.9	1248.0
42.5°	1314.7	1312.4	1320.3	1324.8	1335.0	1346.3	1363.2	1372.3	1382.4	1386.9	1380.2
45°	1463.7	1463.7	1472.8	1473.9	1489.7	1504.4	1528.1	1539.4	1558.6	1558.6	1558.6
47.5°	1628.6	1635.4	1641.1	1652.4	1663.7	1690.8	1714.5	1739.3	1757.4	1759.7	1756.3
50°	1799.2	1806.0	1822.9	1838.7	1863.6	1897.4	1923.4	1956.2	1972.0	1985.5	1981.0
52.5°	1987.8	1988.9	2009.3	2029.6	2065.7	2103.0	2144.8	2178.7	2206.9	2219.3	2209.2
55°	2194.5	2196.7	2214.8	2236.3	2276.9	2319.9	2371.8	2406.8	2443.0	2465.6	2448.6
57.5°	2418.1	2419.2	2437.3	2463.3	2511.9	2554.8	2604.5	2654.2	2688.1	2708.4	2697.1
60°	2665.5	2671.1	2684.7	2717.4	2763.7	2808.9	2858.6	2902.6	2942.2	2963.6	2952.3
62.5°	2929.8	2935.4	2954.6	2980.6	3021.2	3070.9	3118.4	3174.8	3207.6	3231.3	3214.4
65°	3107.1	3117.2	3147.7	3182.7	3242.6	3307.0	3362.3	3439.1	3478.7	3506.9	3491.1
67.5°	3118.4	3124.0	3161.3	3214.4	3294.6	3391.7	3504.6	3624.4	3702.3	3739.6	3712.5
69°	3041.6	3049.5	3085.6	3145.5	3234.7	3347.6	3482.0	3631.1	3750.9	3806.2	3780.2
70°	2954.6	2971.5	3011.1	3076.6	3163.5	3282.1	3421.1	3580.3	3720.4	3796.0	3776.8
72.5°	2771.6	2776.1	2802.1	2854.1	2920.7	3019.0	3150.0	3300.2	3433.5	3541.9	3557.7
75°	2459.9	2474.6	2493.8	2528.8	2562.7	2633.8	2721.9	2824.7	2902.6	2986.2	2989.6
77.5°	1859.0	1903.1	1917.8	1925.7	1940.4	1996.8	2073.6	2162.9	2227.2	2240.8	2238.5
80°	834.7	893.4	906.9	971.3	1010.8	1104.6	1222.0	1358.7	1450.2	1460.4	1435.5
82.5°	163.8	175.1	204.4	255.3	347.9	403.2	480.0	576.0	664.1	714.9	684.4
85°	54.2	57.6	66.6	73.4	84.7	96.0	116.3	144.6	179.6	198.8	177.3
87.5°	21.5	21.5	24.8	27.1	29.4	29.4	29.4	27.1	26.0	21.5	19.2
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°	560.2	560.2	560.2	560.2	560.2	560.2	560.2	560.2
2.5°	563.6	563.6	563.6	563.6	563.6	563.6	563.6	563.6
5°	576.0	574.9	574.9	573.8	573.8	573.8	573.8	573.8
7.5°	593.0	591.8	590.7	591.8	590.7	590.7	590.7	590.7
10°	618.9	616.7	615.5	614.4	614.4	614.4	613.3	613.3
12.5°	649.4	649.4	648.3	647.2	644.9	646.0	644.9	642.6
15°	691.2	689.0	687.8	686.7	684.4	684.4	684.4	683.3
17.5°	733.0	730.7	730.7	727.4	726.2	726.2	726.2	727.4
20°	779.3	775.9	773.7	771.4	769.1	770.3	768.0	770.3
22.5°	825.6	821.1	818.8	815.5	812.1	812.1	810.9	808.7
25°	870.8	865.1	862.9	859.5	855.0	855.0	852.7	850.5
27.5°	913.7	908.1	905.8	899.0	894.5	893.4	891.1	890.0
30°	961.1	954.4	951.0	944.2	937.4	936.3	932.9	932.9
32.5°	1010.8	1004.1	1001.8	991.6	986.0	986.0	983.7	981.5
35°	1073.0	1062.8	1060.5	1050.4	1042.5	1042.5	1040.2	1041.3
37.5°	1146.4	1138.5	1130.6	1122.7	1113.6	1112.5	1110.2	1108.0
40°	1244.6	1235.6	1226.6	1215.3	1207.4	1205.1	1201.7	1200.6
42.5°	1375.7	1366.6	1348.5	1339.5	1331.6	1324.8	1323.7	1322.6
45°	1542.8	1531.5	1519.1	1502.1	1492.0	1477.3	1475.0	1469.4
47.5°	1743.8	1722.4	1700.9	1686.2	1670.4	1653.5	1650.1	1641.1
50°	1957.3	1940.4	1904.2	1880.5	1855.7	1838.7	1827.4	1824.0
52.5°	2186.6	2155.0	2118.8	2087.2	2051.1	2028.5	2008.1	2002.5
55°	2426.0	2380.8	2335.7	2298.4	2262.3	2235.2	2215.9	2206.9
57.5°	2665.5	2615.8	2566.1	2525.4	2494.9	2459.9	2440.7	2436.2
60°	2915.1	2867.6	2816.8	2776.1	2738.9	2708.4	2697.1	2675.6
62.5°	3179.4	3129.7	3082.2	3042.7	2995.3	2973.8	2954.6	2942.2
65°	3439.1	3381.5	3321.7	3279.9	3232.4	3201.9	3178.2	3161.3
67.5°	3640.2	3553.2	3473.0	3403.0	3338.6	3291.2	3260.7	3244.9
69°	3696.6	3588.2	3485.4	3393.9	3318.3	3265.2	3231.3	3215.5
70°	3689.9	3570.1	3457.2	3356.7	3274.2	3217.8	3185.0	3155.6
72.5°	3480.9	3371.4	3246.0	3136.4	3061.9	3007.7	2974.9	2959.1
75°	2970.4	2897.0	2806.6	2721.9	2667.7	2636.1	2595.4	2596.6
77.5°	2162.9	2165.1	2104.1	2017.2	1956.2	1944.9	1926.8	1908.7
80°	1341.8	1234.5	1164.4	1070.7	1001.8	941.9	916.0	859.5
82.5°	618.9	483.4	375.0	283.5	218.0	170.5	149.1	122.0
85°	137.8	105.0	87.0	70.0	59.9	55.3	45.2	41.8
87.5°	19.2	16.9	15.8	14.7	12.4	9.0	6.8	5.6
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)