

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: P147875

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

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P147875
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
Description: TALON MEDIUM LED SITE LUMINAIRE
(4) LIGHTBARS WITH AccuLED OPTICS - TYPE 5 SQUARE WIDE
Light Source: (28) 4000K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

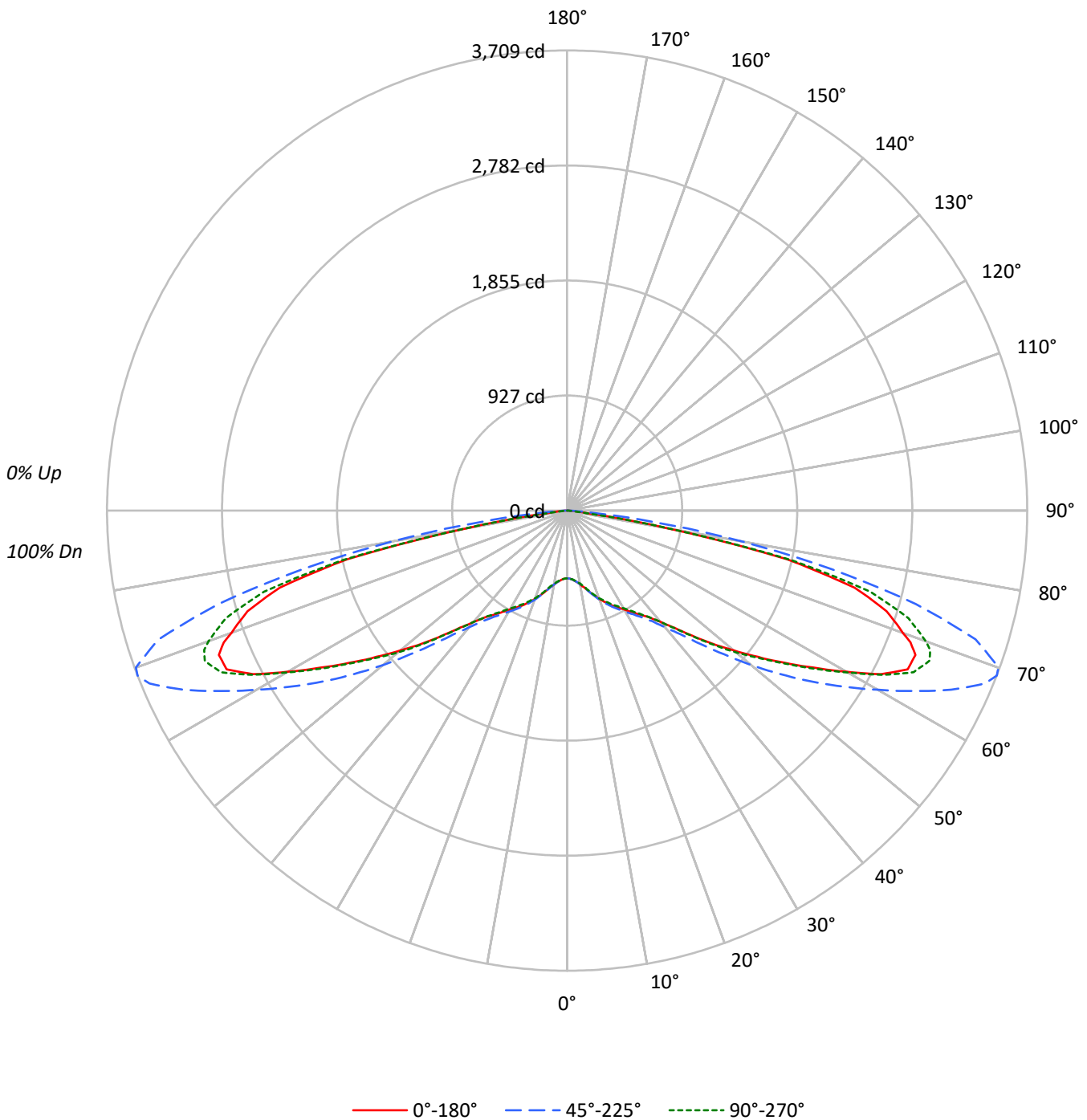
Lumens per Lamp: N/A
Luminaire Lumens: 10513.2 lumens
Efficiency: N/A
Efficacy: 102.9 lumens/watt
Spacing Criteria (0/90/45): 3.9 / 3.92 / 3.98
Luminous Opening: Rectangular (W 0.67' x L: 1' x H: 0')
CIE Type: Direct

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°	8770	8770	8770
5°	9054	9054	9018
10°	9858	9840	9751
15°	11185	11240	11075
20°	12947	13060	12834
25°	14906	15140	14692
30°	17071	17458	16866
35°	20077	20617	19903
40°	24537	25670	24537
45°	32410	34512	32535
50°	43824	48363	44429
55°	59904	67301	60243
60°	83467	92801	83785
65°	115107	129922	117118
70°	135253	173775	144459
75°	148806	180650	157074
80°	75254	131671	77493
85°	9733	35705	7502



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	54.8	0.5
10°-20°	193.6	1.8
20°-30°	392.0	3.7
30°-40°	657.2	6.3
40°-50°	1159.2	11.0
50°-60°	2044.2	19.4
60°-70°	3120.9	29.7
70°-80°	2607.9	24.8
80°-90°	283.4	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°	640.4	6.1
0°-40°	1297.6	12.3
0°-60°	4501.0	42.8
0°-90°	10513.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	10513.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	546	546	546	546	546	
5°	561	562	561	560	559	55
15°	672	676	676	670	666	194
25°	841	845	854	839	829	391
35°	1024	1030	1051	1029	1015	650
45°	1426	1459	1519	1472	1432	1121
55°	2139	2240	2403	2258	2151	1938
65°	3028	3191	3418	3217	3081	2898
75°	2397	2532	2910	2694	2530	2309
85°	53	88	194	76	41	174
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°	545.9	545.9	545.9	545.9	545.9	545.9	545.9	545.9	545.9	545.9	545.9
2.5°	550.3	551.5	550.3	550.3	550.3	550.3	550.3	549.2	549.2	549.2	550.3
5°	561.4	562.5	561.4	562.5	562.5	562.5	562.5	561.4	561.4	561.4	561.4
7.5°	579.0	579.0	579.0	580.1	579.0	579.0	580.1	579.0	579.0	579.0	579.0
10°	604.3	603.2	603.2	603.2	603.2	603.2	604.3	604.3	604.3	603.2	603.2
12.5°	635.1	634.0	635.1	635.1	636.2	636.2	636.2	636.2	636.2	636.2	635.1
15°	672.5	672.5	672.5	673.6	675.8	675.8	674.7	675.8	675.8	675.8	675.8
17.5°	714.4	716.6	714.4	715.5	716.6	715.5	717.7	718.8	719.9	718.8	715.5
20°	757.3	758.4	758.4	758.4	758.4	760.6	761.7	761.7	765.0	763.9	762.8
22.5°	798.0	800.2	800.2	801.3	801.3	804.6	804.6	804.6	806.8	809.0	806.8
25°	840.9	839.8	839.8	842.0	843.1	847.5	847.5	849.7	853.0	854.1	851.9
27.5°	879.5	878.4	878.4	881.7	882.8	888.3	888.3	892.7	894.9	896.0	893.8
30°	920.2	920.2	919.1	922.4	925.7	930.1	932.3	936.7	940.0	941.1	938.9
32.5°	968.6	966.4	967.5	969.7	971.9	976.3	979.6	985.1	989.5	990.6	988.4
35°	1023.7	1020.3	1021.4	1023.7	1027.0	1033.6	1039.1	1042.4	1049.0	1051.2	1046.8
37.5°	1084.2	1085.3	1084.2	1089.7	1095.2	1102.9	1109.5	1113.9	1120.5	1123.8	1120.5
40°	1170.0	1166.7	1170.0	1175.5	1184.4	1194.3	1207.5	1210.8	1217.4	1224.0	1216.3
42.5°	1281.2	1279.0	1286.7	1291.1	1301.0	1312.0	1328.5	1337.4	1347.3	1351.7	1345.1
45°	1426.5	1426.5	1435.3	1436.4	1451.8	1466.1	1489.2	1500.3	1519.0	1519.0	1519.0
47.5°	1587.2	1593.8	1599.3	1610.3	1621.3	1647.7	1670.9	1695.1	1712.7	1714.9	1711.6
50°	1753.4	1760.0	1776.5	1791.9	1816.2	1849.2	1874.5	1906.4	1921.8	1935.0	1930.6
52.5°	1937.2	1938.3	1958.1	1978.0	2013.2	2049.5	2090.2	2123.3	2150.8	2162.9	2153.0
55°	2138.7	2140.9	2158.5	2179.4	2219.0	2260.8	2311.5	2345.6	2380.8	2402.8	2386.3
57.5°	2356.6	2357.7	2375.3	2400.6	2448.0	2489.8	2538.2	2586.6	2619.7	2639.5	2628.5
60°	2597.7	2603.2	2616.4	2648.3	2693.4	2737.4	2785.9	2828.8	2867.3	2888.2	2877.2
62.5°	2855.2	2860.7	2879.4	2904.7	2944.4	2992.8	3039.0	3094.1	3126.0	3149.1	3132.6
65°	3028.0	3037.9	3067.7	3101.8	3160.1	3222.8	3276.8	3351.6	3390.2	3417.7	3402.3
67.5°	3039.0	3044.5	3080.9	3132.6	3210.7	3305.4	3415.5	3532.1	3608.1	3644.4	3618.0
69°	2964.2	2971.9	3007.1	3065.4	3152.4	3262.5	3393.5	3538.8	3655.4	3709.4	3684.0
70°	2879.4	2895.9	2934.5	2998.3	3083.1	3198.6	3334.0	3489.2	3625.7	3699.5	3680.7
72.5°	2701.1	2705.5	2730.8	2781.5	2846.4	2942.2	3069.9	3216.2	3346.1	3451.8	3467.2
75°	2397.3	2411.6	2430.3	2464.5	2497.5	2566.8	2652.7	2752.9	2828.8	2910.3	2913.6
77.5°	1811.8	1854.7	1869.0	1876.7	1891.0	1946.0	2020.9	2107.8	2170.6	2183.8	2181.6
80°	813.4	870.7	883.9	946.6	985.1	1076.5	1191.0	1324.1	1413.3	1423.2	1399.0
82.5°	159.6	170.6	199.2	248.8	339.0	392.9	467.8	561.4	647.2	696.7	667.0
85°	52.8	56.1	64.9	71.5	82.6	93.6	113.4	140.9	175.0	193.7	172.8
87.5°	20.9	20.9	24.2	26.4	28.6	28.6	28.6	26.4	25.3	20.9	18.7
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°	545.9	545.9	545.9	545.9	545.9	545.9	545.9	545.9
2.5°	549.2	549.2	549.2	549.2	549.2	549.2	549.2	549.2
5°	561.4	560.3	560.3	559.2	559.2	559.2	559.2	559.2
7.5°	577.9	576.8	575.7	576.8	575.7	575.7	575.7	575.7
10°	603.2	601.0	599.9	598.8	598.8	598.8	597.7	597.7
12.5°	632.9	632.9	631.8	630.7	628.5	629.6	628.5	626.3
15°	673.6	671.4	670.3	669.2	667.0	667.0	667.0	665.9
17.5°	714.4	712.2	712.2	708.9	707.8	707.8	707.8	708.9
20°	759.5	756.2	754.0	751.8	749.6	750.7	748.5	750.7
22.5°	804.6	800.2	798.0	794.7	791.4	791.4	790.3	788.1
25°	848.6	843.1	840.9	837.6	833.2	833.2	831.0	828.8
27.5°	890.5	885.0	882.8	876.2	871.8	870.7	868.5	867.4
30°	936.7	930.1	926.8	920.2	913.6	912.5	909.2	909.2
32.5°	985.1	978.5	976.3	966.4	960.9	960.9	958.7	956.5
35°	1045.7	1035.8	1033.6	1023.7	1015.9	1015.9	1013.7	1014.8
37.5°	1117.2	1109.5	1101.8	1094.1	1085.3	1084.2	1082.0	1079.8
40°	1213.0	1204.2	1195.4	1184.4	1176.6	1174.4	1171.1	1170.0
42.5°	1340.7	1331.8	1314.2	1305.4	1297.7	1291.1	1290.0	1288.9
45°	1503.6	1492.5	1480.4	1463.9	1454.0	1439.7	1437.5	1432.0
47.5°	1699.5	1678.6	1657.7	1643.3	1627.9	1611.4	1608.1	1599.3
50°	1907.5	1891.0	1855.8	1832.7	1808.4	1791.9	1780.9	1777.6
52.5°	2131.0	2100.1	2064.9	2034.1	1998.9	1976.9	1957.0	1951.5
55°	2364.3	2320.3	2276.2	2239.9	2204.7	2178.3	2159.6	2150.8
57.5°	2597.7	2549.2	2500.8	2461.2	2431.4	2397.3	2378.6	2374.2
60°	2840.9	2794.7	2745.1	2705.5	2669.2	2639.5	2628.5	2607.6
62.5°	3098.5	3050.0	3003.8	2965.3	2919.1	2898.1	2879.4	2867.3
65°	3351.6	3295.5	3237.2	3196.4	3150.2	3120.5	3097.4	3080.9
67.5°	3547.6	3462.8	3384.7	3316.4	3253.7	3207.4	3177.7	3162.3
69°	3602.6	3496.9	3396.8	3307.6	3233.9	3182.1	3149.1	3133.7
70°	3596.0	3479.3	3369.2	3271.3	3190.9	3135.9	3104.0	3075.4
72.5°	3392.4	3285.6	3163.4	3056.6	2984.0	2931.2	2899.2	2883.8
75°	2894.8	2823.3	2735.2	2652.7	2599.9	2569.0	2529.4	2530.5
77.5°	2107.8	2110.0	2050.6	1965.9	1906.4	1895.4	1877.8	1860.2
80°	1307.6	1203.1	1134.8	1043.5	976.3	918.0	892.7	837.6
82.5°	603.2	471.1	365.4	276.3	212.4	166.2	145.3	118.9
85°	134.3	102.4	84.8	68.2	58.3	53.9	44.0	40.7
87.5°	18.7	16.5	15.4	14.3	12.1	8.8	6.6	5.5
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)