

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: P147871

Luminaire Tested: **TLM-E04-LED-E1-5WQ-7050**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P147871  
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-E04-LED-E1-5WQ-7050  
Description: TALON MEDIUM LED SITE LUMINAIRE  
(4) LIGHTBARS WITH AccuLED OPTICS - TYPE 5 SQUARE WIDE  
Light Source: (84) 5000K CCT, 70 CRI LEDs  
Ballast/Driver: -

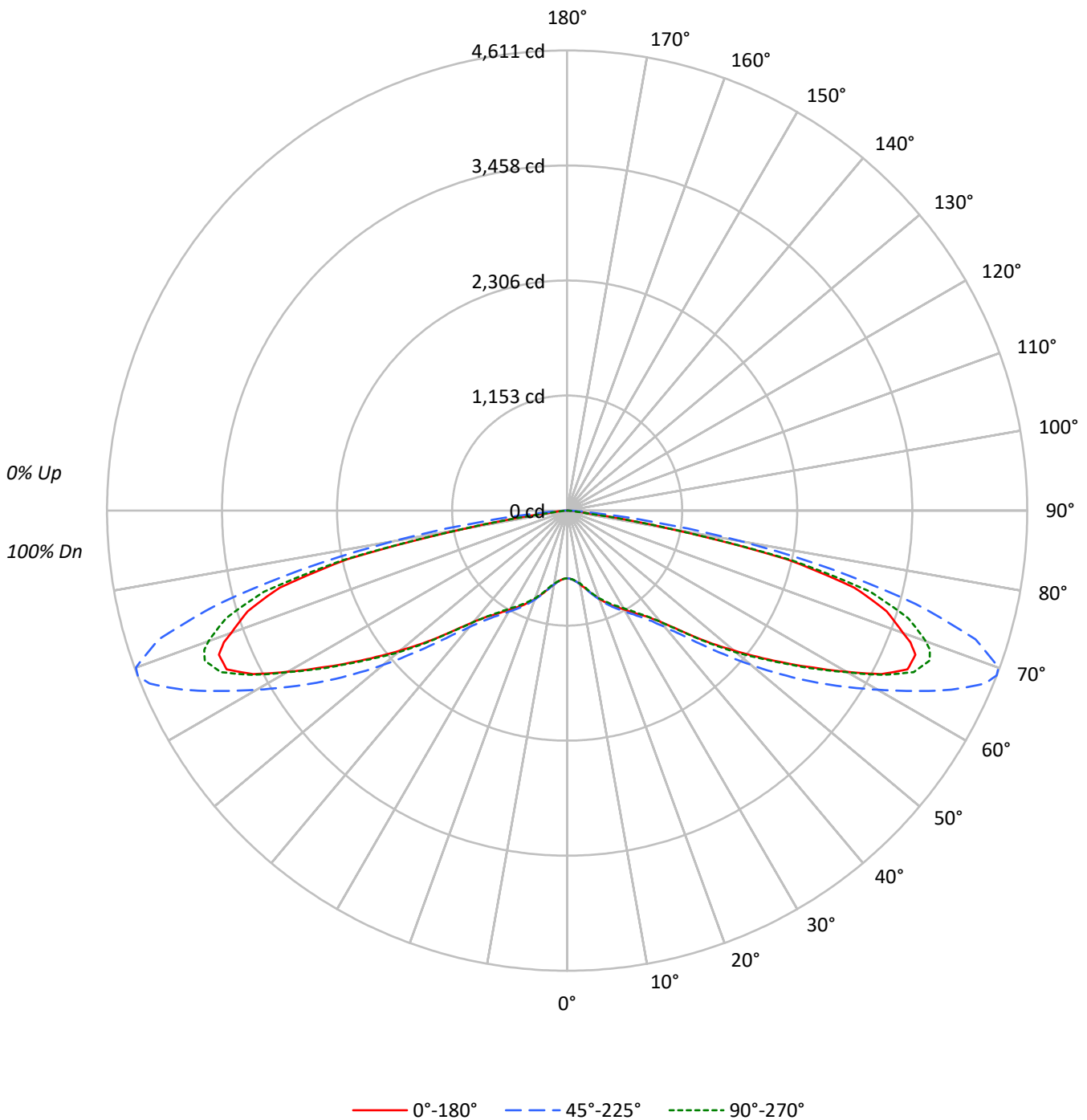
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 13067.6 lumens  
Efficiency: N/A  
Efficacy: 134.4 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): 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	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°	10902	10902	10902
5°	11253	11253	11208
10°	12253	12230	12119
15°	13903	13971	13767
20°	16093	16233	15953
25°	18529	18820	18262
30°	21219	21701	20964
35°	24955	25626	24739
40°	30500	31907	30500
45°	40285	42896	40442
50°	54471	60114	55223
55°	74457	83656	74878
60°	103745	115351	104140
65°	143078	161489	145572
70°	168119	215994	179557
75°	184964	224541	195243
80°	93545	163664	96330
85°	12111	44387	9327



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	68.2	0.5
10°-20°	240.6	1.8
20°-30°	487.2	3.7
30°-40°	816.9	6.3
40°-50°	1440.9	11.0
50°-60°	2540.9	19.4
60°-70°	3879.3	29.7
70°-80°	3241.5	24.8
80°-90°	352.2	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°	796.0	6.1
0°-40°	1612.8	12.3
0°-60°	5594.6	42.8
0°-90°	13067.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	13067.6	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	679	679	679	679	679	
5°	698	699	698	696	695	68
15°	836	840	840	832	828	241
25°	1045	1051	1062	1043	1030	486
35°	1272	1281	1307	1279	1261	808
45°	1773	1814	1888	1830	1780	1393
55°	2658	2784	2987	2807	2673	2409
65°	3764	3967	4248	3998	3829	3603
75°	2980	3147	3617	3348	3145	2869
85°	66	109	241	95	51	216
90°	0	0	0	0	0	



TEST NUMBER: P147871

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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	678.6	678.6	678.6	678.6	678.6	678.6	678.6	678.6	678.6	678.6	678.6
2.5°	684.1	685.4	684.1	684.1	684.1	684.1	684.1	682.7	682.7	682.7	684.1
5°	697.8	699.1	697.8	699.1	699.1	699.1	699.1	697.8	697.8	697.8	697.8
7.5°	719.6	719.6	719.6	721.0	719.6	719.6	721.0	719.6	719.6	719.6	719.6
10°	751.1	749.7	749.7	749.7	749.7	749.7	751.1	751.1	751.1	749.7	749.7
12.5°	789.4	788.0	789.4	789.4	790.8	790.8	790.8	790.8	790.8	790.8	789.4
15°	835.9	835.9	835.9	837.3	840.0	840.0	838.7	840.0	840.0	840.0	840.0
17.5°	887.9	890.7	887.9	889.3	890.7	889.3	892.0	893.4	894.8	893.4	889.3
20°	941.3	942.6	942.6	942.6	942.6	945.4	946.8	946.8	950.9	949.5	948.1
22.5°	991.9	994.6	994.6	996.0	996.0	1000.1	1000.1	1000.1	1002.8	1005.6	1002.8
25°	1045.3	1043.9	1043.9	1046.6	1048.0	1053.5	1053.5	1056.2	1060.3	1061.7	1058.9
27.5°	1093.1	1091.8	1091.8	1095.9	1097.2	1104.1	1104.1	1109.6	1112.3	1113.7	1110.9
30°	1143.8	1143.8	1142.4	1146.5	1150.6	1156.1	1158.8	1164.3	1168.4	1169.8	1167.0
32.5°	1204.0	1201.2	1202.6	1205.3	1208.1	1213.5	1217.6	1224.5	1230.0	1231.3	1228.6
35°	1272.4	1268.3	1269.6	1272.4	1276.5	1284.7	1291.5	1295.6	1303.8	1306.6	1301.1
37.5°	1347.6	1349.0	1347.6	1354.5	1361.3	1370.9	1379.1	1384.6	1392.8	1396.9	1392.8
40°	1454.3	1450.2	1454.3	1461.2	1472.1	1484.4	1500.9	1505.0	1513.2	1521.4	1511.8
42.5°	1592.5	1589.8	1599.4	1604.8	1617.1	1630.8	1651.3	1662.3	1674.6	1680.1	1671.9
45°	1773.1	1773.1	1784.1	1785.4	1804.6	1822.4	1851.1	1864.8	1888.0	1888.0	1888.0
47.5°	1972.9	1981.1	1987.9	2001.6	2015.3	2048.1	2076.8	2106.9	2128.8	2131.6	2127.5
50°	2179.4	2187.7	2208.2	2227.3	2257.4	2298.5	2329.9	2369.6	2388.8	2405.2	2399.7
52.5°	2407.9	2409.3	2433.9	2458.5	2502.3	2547.5	2598.1	2639.1	2673.3	2688.4	2676.1
55°	2658.3	2661.0	2682.9	2708.9	2758.2	2810.2	2873.1	2915.5	2959.3	2986.7	2966.1
57.5°	2929.2	2930.6	2952.4	2983.9	3042.7	3094.7	3154.9	3215.1	3256.2	3280.8	3267.1
60°	3228.8	3235.7	3252.1	3291.7	3347.8	3402.6	3462.8	3516.1	3564.0	3590.0	3576.3
62.5°	3549.0	3555.8	3579.1	3610.5	3659.8	3720.0	3777.4	3845.8	3885.5	3914.3	3893.7
65°	3763.8	3776.1	3813.0	3855.4	3927.9	4005.9	4073.0	4166.0	4213.9	4248.1	4228.9
67.5°	3777.4	3784.3	3829.4	3893.7	3990.9	4108.5	4245.3	4390.4	4484.8	4529.9	4497.1
69°	3684.4	3694.0	3737.8	3810.3	3918.4	4055.2	4218.0	4398.6	4543.6	4610.6	4579.2
70°	3579.1	3599.6	3647.5	3726.8	3832.2	3975.8	4144.1	4337.0	4506.7	4598.3	4575.1
72.5°	3357.4	3362.9	3394.4	3457.3	3538.0	3657.0	3815.7	3997.7	4159.1	4290.5	4309.6
75°	2979.8	2997.6	3020.9	3063.3	3104.3	3190.5	3297.2	3421.7	3516.1	3617.4	3621.5
77.5°	2252.0	2305.3	2323.1	2332.7	2350.5	2418.9	2511.9	2620.0	2698.0	2714.4	2711.7
80°	1011.1	1082.2	1098.6	1176.6	1224.5	1338.0	1480.3	1645.9	1756.7	1769.0	1738.9
82.5°	198.4	212.1	247.6	309.2	421.4	488.4	581.5	697.8	804.5	866.0	829.1
85°	65.7	69.8	80.7	88.9	102.6	116.3	140.9	175.1	217.5	240.8	214.8
87.5°	26.0	26.0	30.1	32.8	35.6	35.6	35.6	32.8	31.5	26.0	23.3
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°	678.6	678.6	678.6	678.6	678.6	678.6	678.6	678.6
2.5°	682.7	682.7	682.7	682.7	682.7	682.7	682.7	682.7
5°	697.8	696.4	696.4	695.0	695.0	695.0	695.0	695.0
7.5°	718.3	716.9	715.5	716.9	715.5	715.5	715.5	715.5
10°	749.7	747.0	745.6	744.3	744.3	744.3	742.9	742.9
12.5°	786.7	786.7	785.3	783.9	781.2	782.6	781.2	778.5
15°	837.3	834.6	833.2	831.8	829.1	829.1	829.1	827.7
17.5°	887.9	885.2	885.2	881.1	879.7	879.7	879.7	881.1
20°	944.0	939.9	937.2	934.4	931.7	933.1	930.3	933.1
22.5°	1000.1	994.6	991.9	987.8	983.7	983.7	982.3	979.6
25°	1054.8	1048.0	1045.3	1041.2	1035.7	1035.7	1032.9	1030.2
27.5°	1106.8	1100.0	1097.2	1089.0	1083.6	1082.2	1079.5	1078.1
30°	1164.3	1156.1	1152.0	1143.8	1135.6	1134.2	1130.1	1130.1
32.5°	1224.5	1216.3	1213.5	1201.2	1194.4	1194.4	1191.7	1188.9
35°	1299.7	1287.4	1284.7	1272.4	1262.8	1262.8	1260.1	1261.4
37.5°	1388.7	1379.1	1369.5	1359.9	1349.0	1347.6	1344.9	1342.1
40°	1507.7	1496.7	1485.8	1472.1	1462.5	1459.8	1455.7	1454.3
42.5°	1666.4	1655.5	1633.6	1622.6	1613.0	1604.8	1603.5	1602.1
45°	1868.9	1855.2	1840.1	1819.6	1807.3	1789.5	1786.8	1780.0
47.5°	2112.4	2086.4	2060.4	2042.6	2023.5	2003.0	1998.9	1987.9
50°	2371.0	2350.5	2306.7	2278.0	2247.9	2227.3	2213.7	2209.5
52.5°	2648.7	2610.4	2566.6	2528.3	2484.5	2457.2	2432.6	2425.7
55°	2938.8	2884.0	2829.3	2784.2	2740.4	2707.6	2684.3	2673.3
57.5°	3228.8	3168.6	3108.4	3059.2	3022.2	2979.8	2956.6	2951.1
60°	3531.2	3473.7	3412.1	3362.9	3317.7	3280.8	3267.1	3241.1
62.5°	3851.3	3791.1	3733.7	3685.8	3628.3	3602.3	3579.1	3564.0
65°	4166.0	4096.2	4023.7	3973.1	3915.6	3878.7	3849.9	3829.4
67.5°	4409.5	4304.2	4207.0	4122.2	4044.2	3986.8	3949.8	3930.7
69°	4477.9	4346.6	4222.1	4111.3	4019.6	3955.3	3914.3	3895.1
70°	4469.7	4324.7	4187.9	4066.1	3966.2	3897.8	3858.2	3822.6
72.5°	4216.6	4083.9	3932.0	3799.3	3709.0	3643.4	3603.7	3584.5
75°	3598.2	3509.3	3399.8	3297.2	3231.5	3193.2	3144.0	3145.4
77.5°	2620.0	2622.7	2548.8	2443.5	2369.6	2355.9	2334.0	2312.2
80°	1625.4	1495.4	1410.6	1297.0	1213.5	1141.0	1109.6	1041.2
82.5°	749.7	585.6	454.2	343.4	264.1	206.6	180.6	147.8
85°	166.9	127.2	105.3	84.8	72.5	67.0	54.7	50.6
87.5°	23.3	20.5	19.2	17.8	15.0	10.9	8.2	6.8
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)