

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: P147350

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

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P147350
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
Description: TALON MEDIUM LED SITE LUMINAIRE
(4) LIGHTBARS WITH AccuLED OPTICS - TYPE 5 SQUARE MEDIUM
Light Source: (84) 4000K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

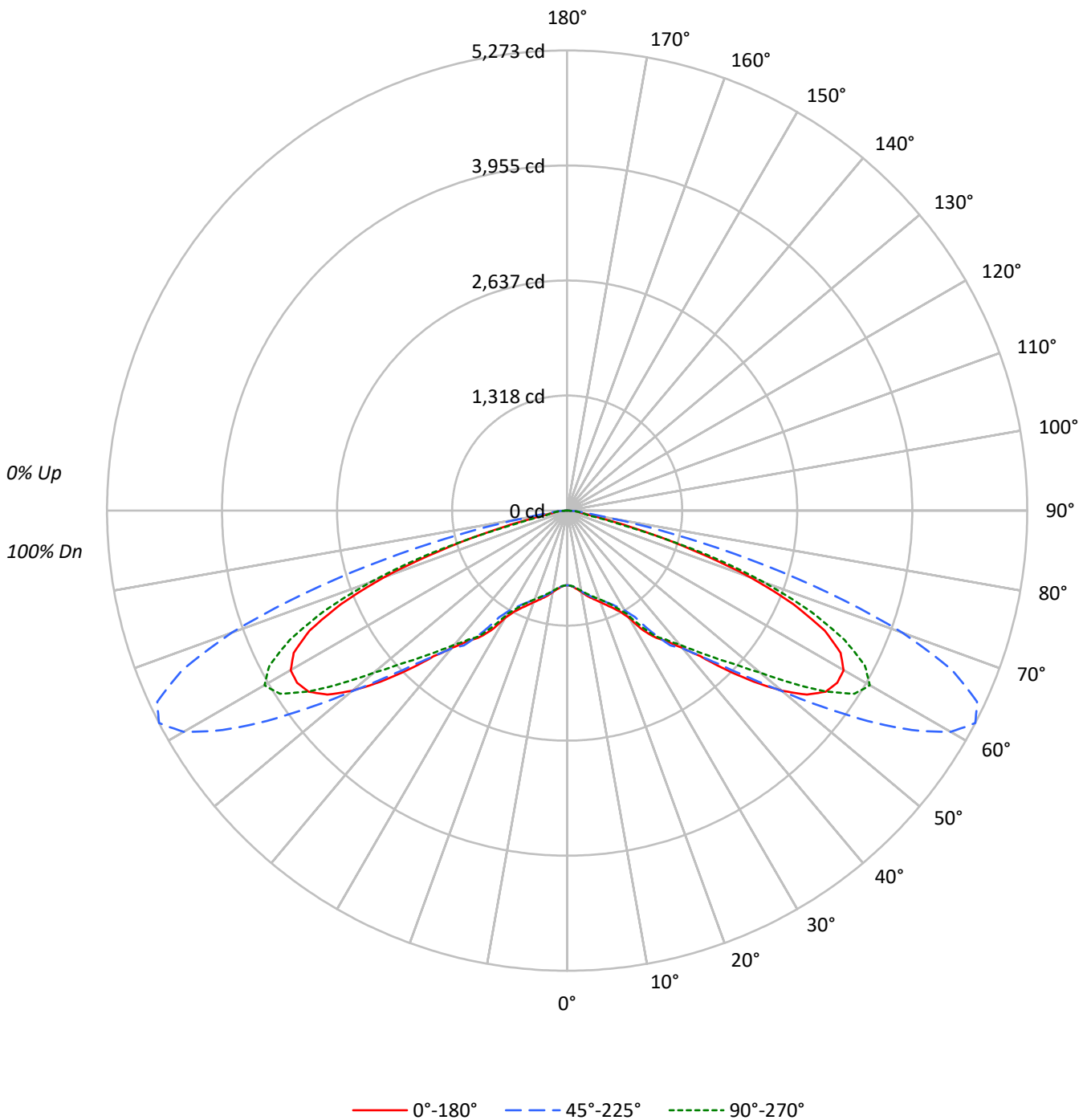
Lumens per Lamp: N/A
Luminaire Lumens: 12895.1 lumens
Efficiency: N/A
Efficacy: 132.7 lumens/watt
Spacing Criteria (0/90/45): 3.55 / 3.67 / 3.6
Luminous Opening: Rectangular (W 0.67' x L: 1' x H: 0')
CIE Type: Direct

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°	13752	13752	13752
5°	14214	14137	14106
10°	15465	15302	15225
15°	17165	16842	16677
20°	19080	18625	18464
25°	21780	20894	21059
30°	26305	24537	25378
35°	34922	33643	34492
40°	43062	43188	42085
45°	58663	56996	54135
50°	80229	80644	72281
55°	101338	117732	101206
60°	117536	162969	128653
65°	123775	197017	133305
70°	105002	192052	112861
75°	53258	134821	46263
80°	16894	46814	17023
85°	18323	24332	18673



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	85.8	0.7
10°-20°	290.0	2.2
20°-30°	560.7	4.3
30°-40°	1085.6	8.4
40°-50°	1960.1	15.2
50°-60°	3408.3	26.4
60°-70°	3869.3	30.0
70°-80°	1500.1	11.6
80°-90°	135.3	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°	936.4	7.3
0°-40°	2022.0	15.7
0°-60°	7390.3	57.3
0°-90°	12895.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	12895.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	856	856	856	856	856	
5°	881	880	877	876	875	86
15°	1032	1025	1013	1005	1003	295
25°	1229	1204	1179	1180	1188	579
35°	1781	1746	1715	1746	1759	1113
45°	2582	2523	2509	2411	2383	2022
55°	3618	3792	4203	3741	3613	3185
65°	3256	3738	5183	4023	3507	3104
75°	858	1200	2172	1136	745	1039
85°	99	142	132	142	101	97
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°	856.0	856.0	856.0	856.0	856.0	856.0	856.0	856.0	856.0	856.0	856.0
2.5°	861.4	864.0	863.3	862.0	862.0	862.0	861.4	859.4	858.7	860.0	861.4
5°	881.4	881.4	881.4	881.4	880.0	880.0	878.6	877.4	878.0	876.6	876.0
7.5°	912.0	910.0	910.0	909.3	909.4	908.0	906.0	903.3	904.0	903.3	902.6
10°	948.0	948.6	946.6	948.7	945.3	944.7	942.0	940.6	940.0	938.0	938.0
12.5°	991.4	989.4	989.4	988.0	986.6	985.4	981.4	980.6	978.0	976.7	974.7
15°	1032.0	1031.4	1028.6	1026.0	1025.3	1024.0	1019.4	1016.6	1016.0	1012.6	1010.0
17.5°	1072.7	1071.4	1068.0	1066.6	1064.0	1062.0	1058.0	1054.0	1052.0	1050.6	1047.4
20°	1116.0	1114.7	1111.3	1108.7	1105.4	1102.6	1096.7	1093.4	1091.4	1089.4	1086.6
22.5°	1170.0	1167.3	1162.0	1157.4	1150.0	1147.3	1139.4	1134.6	1131.3	1128.6	1127.4
25°	1228.7	1229.4	1222.0	1216.0	1207.3	1200.0	1190.0	1184.6	1181.4	1178.7	1178.0
27.5°	1302.0	1302.7	1296.0	1287.4	1274.0	1266.0	1252.6	1246.0	1244.0	1241.3	1240.7
30°	1418.0	1412.0	1400.6	1386.6	1374.7	1357.3	1338.0	1331.3	1324.7	1322.7	1322.6
32.5°	1631.3	1628.0	1618.6	1584.0	1568.0	1532.0	1498.0	1478.7	1456.7	1446.0	1439.4
35°	1780.6	1779.3	1772.0	1760.0	1750.0	1742.6	1722.6	1719.4	1715.4	1715.4	1720.6
37.5°	1890.7	1882.6	1881.3	1883.3	1880.7	1882.0	1898.0	1920.0	1938.7	1948.0	1946.6
40°	2053.3	2042.0	2048.7	2044.0	2038.0	2036.6	2042.0	2050.6	2059.4	2059.3	2057.3
42.5°	2266.0	2271.3	2274.0	2254.7	2242.0	2238.6	2251.4	2248.6	2257.4	2254.0	2245.3
45°	2582.0	2578.7	2574.0	2550.6	2530.6	2514.7	2518.0	2513.4	2514.0	2508.6	2502.0
47.5°	2900.6	2912.0	2892.7	2881.4	2858.7	2847.4	2856.7	2848.7	2864.0	2836.0	2822.6
50°	3210.0	3218.0	3211.3	3195.3	3195.3	3211.3	3222.6	3237.3	3258.6	3226.6	3178.6
52.5°	3463.4	3470.0	3480.0	3493.4	3526.0	3560.0	3608.0	3659.4	3700.0	3694.0	3639.3
55°	3618.0	3626.0	3642.6	3688.6	3747.4	3836.6	3945.3	4064.7	4158.0	4203.3	4163.3
57.5°	3670.0	3676.0	3721.4	3776.6	3868.0	4000.6	4182.6	4388.6	4568.0	4682.0	4664.0
60°	3658.0	3658.0	3704.0	3780.0	3908.0	4084.0	4341.3	4626.6	4901.4	5072.0	5046.7
62.5°	3532.0	3538.6	3604.7	3696.0	3850.6	4061.4	4368.0	4732.7	5061.3	5273.4	5252.7
65°	3256.0	3260.6	3332.0	3440.6	3613.3	3862.6	4198.0	4602.0	4978.6	5182.7	5144.0
67.5°	2810.0	2814.7	2872.6	2995.3	3178.0	3438.6	3800.7	4245.4	4614.0	4775.3	4659.4
70°	2235.4	2248.6	2286.0	2416.0	2554.6	2810.0	3143.3	3588.0	3936.0	4088.6	3960.6
72.5°	1523.4	1557.3	1602.7	1718.0	1850.6	2062.7	2328.0	2702.7	2982.0	3158.6	3044.6
75°	858.0	906.0	920.0	1007.4	1116.7	1284.0	1478.0	1746.6	2028.6	2172.0	2034.6
77.5°	370.6	410.0	427.3	468.0	553.4	623.4	741.3	922.6	1140.7	1241.4	1076.6
80°	182.6	192.0	199.4	212.0	236.0	258.6	314.7	394.0	483.4	506.0	402.7
82.5°	141.4	148.0	160.6	170.7	176.6	182.7	188.0	198.6	207.3	212.0	200.0
85°	99.4	108.0	122.0	133.3	140.0	144.7	149.3	152.6	144.6	132.0	138.6
87.5°	26.0	34.0	47.3	51.4	58.0	61.4	60.0	62.0	56.0	40.7	45.3
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°	856.0	856.0	856.0	856.0	856.0	856.0	856.0	856.0
2.5°	860.6	860.0	860.6	860.7	860.6	860.0	860.0	860.0
5°	876.0	876.0	876.7	875.4	875.3	876.0	875.4	874.7
7.5°	902.0	901.4	901.3	900.6	901.4	900.6	900.7	900.0
10°	936.6	935.3	936.0	934.0	934.0	933.4	933.4	933.3
12.5°	974.0	972.0	972.6	970.6	967.4	968.0	968.7	968.0
15°	1010.0	1008.0	1006.0	1004.6	1002.6	1003.4	1003.3	1002.7
17.5°	1046.6	1042.6	1042.0	1040.0	1039.3	1039.4	1039.4	1040.0
20°	1084.7	1082.0	1081.4	1079.4	1078.6	1080.7	1081.4	1080.0
22.5°	1125.4	1124.0	1125.4	1124.0	1126.0	1127.4	1128.0	1126.7
25°	1176.6	1175.4	1177.4	1182.0	1184.7	1186.0	1189.4	1188.0
27.5°	1242.6	1241.4	1246.0	1252.6	1256.6	1263.4	1266.7	1268.0
30°	1328.0	1334.0	1336.7	1350.0	1352.7	1363.3	1363.4	1368.0
32.5°	1452.0	1463.3	1483.4	1504.0	1532.7	1553.4	1553.4	1564.0
35°	1724.0	1728.6	1744.0	1747.4	1753.4	1760.0	1753.4	1758.7
37.5°	1932.6	1912.0	1897.4	1876.6	1864.0	1864.0	1865.4	1864.0
40°	2039.4	2031.4	2024.7	2007.4	2004.6	2004.0	2004.0	2006.7
42.5°	2230.0	2210.7	2200.0	2185.3	2180.6	2179.3	2178.6	2180.0
45°	2478.0	2446.7	2418.0	2403.4	2390.7	2378.6	2382.6	2382.7
47.5°	2766.6	2718.0	2671.4	2646.0	2624.0	2614.0	2607.3	2605.3
50°	3118.0	3050.0	2990.0	2942.7	2910.6	2910.0	2913.4	2892.0
52.5°	3548.6	3441.4	3366.6	3302.6	3272.6	3269.4	3258.6	3246.7
55°	4026.0	3898.6	3775.4	3706.6	3667.4	3646.0	3633.4	3613.3
57.5°	4518.0	4346.6	4169.4	4059.4	3990.0	3942.0	3916.7	3905.3
60°	4897.4	4663.4	4429.4	4252.6	4137.3	4066.0	4022.0	4004.0
62.5°	5046.6	4729.3	4429.4	4197.3	4030.6	3932.0	3872.6	3846.7
65°	4868.6	4492.6	4151.3	3895.3	3709.4	3599.4	3534.6	3506.7
67.5°	4371.4	4039.4	3668.0	3413.4	3222.0	3113.4	3043.4	3022.7
70°	3664.7	3325.3	2970.6	2743.3	2572.7	2484.0	2411.4	2402.7
72.5°	2754.0	2461.3	2157.4	1969.4	1832.0	1685.3	1648.0	1666.7
75°	1765.3	1491.4	1220.7	1051.4	926.0	786.0	732.0	745.3
77.5°	836.0	647.3	467.4	361.3	303.3	259.4	248.0	241.3
80°	310.0	251.4	222.0	210.6	202.7	195.3	190.0	184.0
82.5°	200.6	196.0	190.0	188.0	182.0	172.6	155.3	148.0
85°	150.0	150.0	142.0	142.7	138.0	126.0	110.0	101.3
87.5°	44.0	39.3	36.0	33.3	32.7	29.4	21.3	18.7
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)