

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: P147351

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

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P147351
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-7050
Description: TALON MEDIUM LED SITE LUMINAIRE
(4) LIGHTBARS WITH AccuLED OPTICS - TYPE 5 SQUARE MEDIUM
Light Source: (84) 5000K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

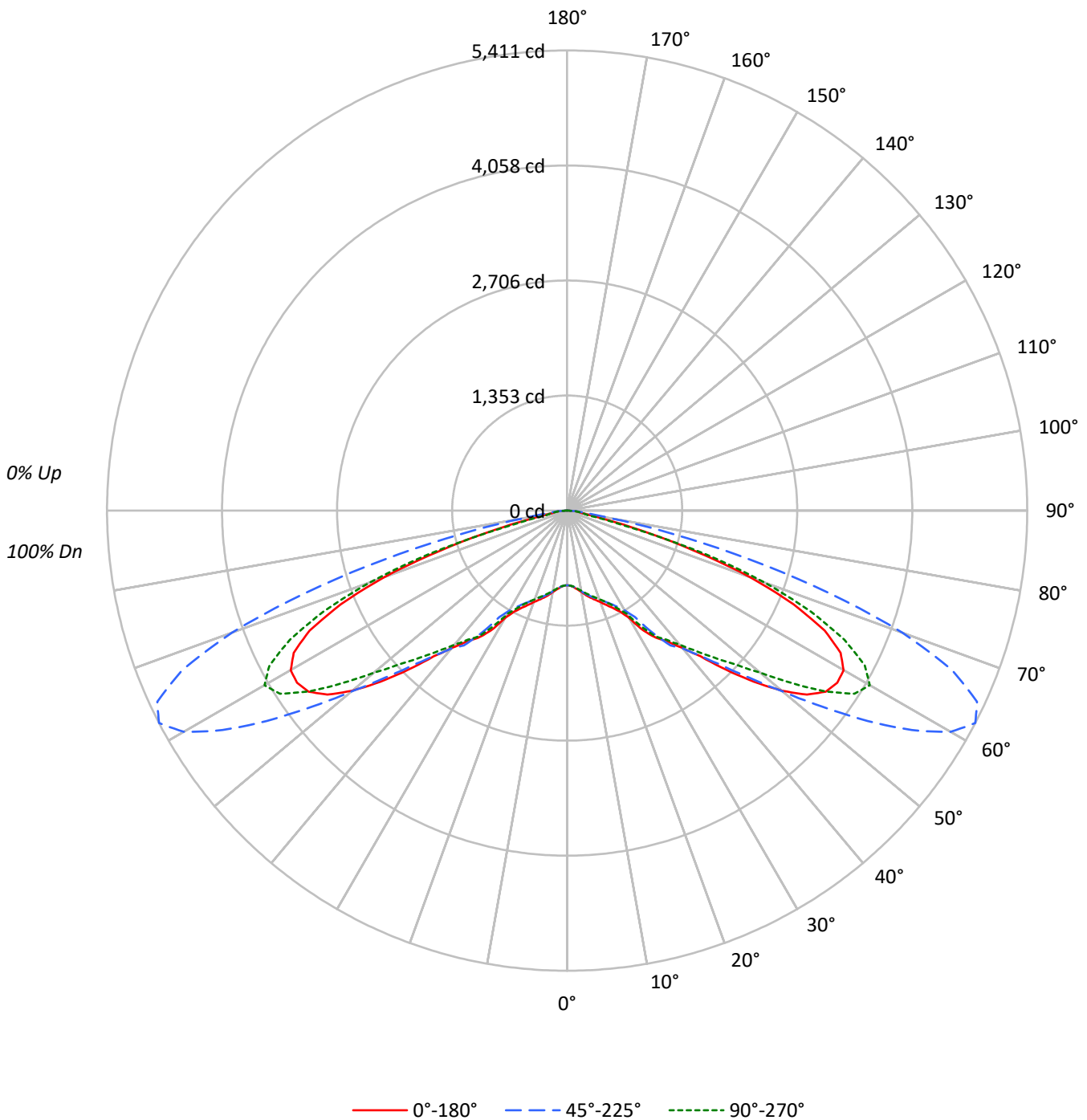
Lumens per Lamp: N/A
Luminaire Lumens: 13231.7 lumens
Efficiency: N/A
Efficacy: 136.1 lumens/watt
Spacing Criteria (0/90/45): 3.55 / 3.67 / 3.6
Luminous Opening: Rectangular (W 0.67' x L: 1' x H: 0')
CIE Type: Direct

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°	14110	14110	14110
5°	14585	14508	14474
10°	15870	15702	15623
15°	17614	17283	17111
20°	19577	19111	18946
25°	22349	21438	21608
30°	26993	25177	26040
35°	35836	34522	35393
40°	44188	44316	43184
45°	60195	58486	55548
50°	82324	82751	74168
55°	103982	120805	103851
60°	120604	167223	132011
65°	127006	202160	136783
70°	107736	197068	115806
75°	54649	138341	47473
80°	17338	48035	17467
85°	18783	24958	19170



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	88.0	0.7
10°-20°	297.5	2.2
20°-30°	575.3	4.3
30°-40°	1113.9	8.4
40°-50°	2011.3	15.2
50°-60°	3497.3	26.4
60°-70°	3970.3	30.0
70°-80°	1539.3	11.6
80°-90°	138.9	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°	960.9	7.3
0°-40°	2074.8	15.7
0°-60°	7583.3	57.3
0°-90°	13231.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	13231.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	878	878	878	878	878	
5°	904	903	900	899	898	89
15°	1059	1051	1039	1032	1029	303
25°	1261	1235	1209	1210	1219	594
35°	1827	1792	1760	1791	1805	1142
45°	2649	2589	2574	2474	2445	2075
55°	3712	3891	4313	3839	3708	3269
65°	3341	3836	5318	4128	3598	3185
75°	880	1232	2229	1166	765	1066
85°	102	146	135	146	104	100
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°	878.3	878.3	878.3	878.3	878.3	878.3	878.3	878.3	878.3	878.3	878.3
2.5°	883.8	886.6	885.9	884.5	884.5	884.5	883.8	881.8	881.1	882.4	883.8
5°	904.4	904.4	904.4	904.4	903.0	903.0	901.6	900.2	900.9	899.6	898.9
7.5°	935.8	933.8	933.8	933.0	933.1	931.7	929.6	926.9	927.6	926.9	926.2
10°	972.8	973.4	971.4	973.4	970.0	969.4	966.6	965.2	964.6	962.5	962.5
12.5°	1017.2	1015.2	1015.2	1013.8	1012.4	1011.0	1007.0	1006.2	1003.5	1002.2	1000.2
15°	1059.0	1058.2	1055.5	1052.8	1052.1	1050.8	1045.9	1043.2	1042.5	1039.1	1036.4
17.5°	1100.6	1099.3	1095.9	1094.5	1091.8	1089.8	1085.6	1081.5	1079.4	1078.1	1074.6
20°	1145.1	1143.8	1140.4	1137.6	1134.2	1131.4	1125.3	1121.9	1119.8	1117.8	1115.0
22.5°	1200.6	1197.8	1192.3	1187.6	1180.0	1177.3	1169.1	1164.3	1160.9	1158.2	1156.8
25°	1260.8	1261.4	1253.9	1247.8	1238.8	1231.3	1221.1	1215.6	1212.2	1209.4	1208.8
27.5°	1336.0	1336.6	1329.8	1321.0	1307.2	1299.0	1285.4	1278.5	1276.4	1273.8	1273.0
30°	1455.1	1448.8	1437.2	1422.9	1410.6	1392.8	1372.9	1366.1	1359.2	1357.2	1357.2
32.5°	1674.0	1670.5	1661.0	1625.4	1608.9	1572.0	1537.2	1517.3	1494.7	1483.8	1477.0
35°	1827.2	1825.8	1818.2	1806.0	1795.6	1788.2	1767.6	1764.2	1760.1	1760.2	1765.6
37.5°	1940.0	1931.8	1930.4	1932.5	1929.8	1931.1	1947.6	1970.1	1989.2	1998.8	1997.5
40°	2107.0	2095.3	2102.1	2097.4	2091.2	2089.8	2095.3	2104.2	2113.1	2113.1	2111.0
42.5°	2325.1	2330.6	2333.4	2313.6	2300.5	2297.2	2310.1	2307.4	2316.2	2312.8	2304.0
45°	2649.4	2646.0	2641.2	2617.2	2596.8	2580.4	2583.8	2579.0	2579.6	2574.2	2567.4
47.5°	2976.4	2988.0	2968.2	2956.6	2933.2	2921.6	2931.2	2923.0	2938.8	2910.0	2896.4
50°	3293.8	3302.0	3295.2	3278.8	3278.8	3295.2	3306.8	3321.8	3343.8	3310.9	3261.6
52.5°	3553.8	3560.6	3570.8	3584.6	3618.0	3653.0	3702.2	3754.8	3796.6	3790.4	3734.4
55°	3712.4	3720.6	3737.8	3785.0	3845.2	3936.8	4048.4	4170.8	4266.5	4313.0	4272.0
57.5°	3765.8	3772.0	3818.5	3875.2	3969.0	4105.1	4291.8	4503.2	4687.2	4804.2	4785.8
60°	3753.5	3753.5	3800.7	3878.7	4010.0	4190.6	4454.6	4747.5	5029.3	5204.4	5178.4
62.5°	3624.2	3631.0	3698.8	3792.5	3951.2	4167.4	4482.0	4856.2	5193.5	5411.0	5389.8
65°	3341.0	3345.8	3419.0	3530.5	3707.7	3963.5	4307.6	4722.1	5108.6	5318.0	5278.3
67.5°	2883.4	2888.1	2947.6	3073.5	3261.0	3528.4	3899.9	4356.2	4734.5	4900.0	4781.0
70°	2293.6	2307.4	2345.6	2479.0	2621.4	2883.4	3225.4	3681.7	4038.8	4195.4	4064.1
72.5°	1563.1	1598.0	1644.5	1762.8	1899.0	2116.6	2388.8	2773.2	3059.8	3241.1	3124.1
75°	880.4	929.6	944.0	1033.6	1145.8	1317.5	1516.6	1792.2	2081.6	2228.7	2087.8
77.5°	380.4	420.7	438.4	480.2	567.8	639.6	760.6	946.8	1170.4	1273.8	1104.8
80°	187.4	197.0	204.6	217.6	242.2	265.4	322.8	404.3	496.0	519.2	413.2
82.5°	145.0	151.8	164.9	175.1	181.2	187.4	192.9	203.8	212.8	217.5	205.2
85°	101.9	110.8	125.2	136.8	143.6	148.4	153.2	156.6	148.4	135.4	142.3
87.5°	26.6	34.9	48.6	52.6	59.5	63.0	61.6	63.6	57.4	41.8	46.6
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°	878.3	878.3	878.3	878.3	878.3	878.3	878.3	878.3
2.5°	883.1	882.4	883.2	883.2	883.2	882.4	882.4	882.5
5°	898.9	898.8	899.6	898.2	898.2	898.8	898.2	897.5
7.5°	925.6	924.8	924.8	924.2	924.8	924.2	924.2	923.5
10°	961.2	959.8	960.4	958.4	958.4	957.7	957.7	957.7
12.5°	999.4	997.4	998.0	996.0	992.6	993.3	994.0	993.3
15°	1036.4	1034.4	1032.2	1030.9	1028.8	1029.5	1029.6	1028.8
17.5°	1074.0	1069.9	1069.2	1067.2	1066.4	1066.4	1066.5	1067.1
20°	1113.0	1110.2	1109.6	1107.6	1106.8	1108.8	1109.6	1108.2
22.5°	1154.7	1153.4	1154.7	1153.3	1155.4	1156.8	1157.4	1156.1
25°	1207.4	1206.0	1208.0	1212.8	1215.6	1217.0	1220.4	1219.0
27.5°	1275.1	1273.8	1278.6	1285.4	1289.5	1296.3	1299.7	1301.1
30°	1362.6	1368.8	1371.6	1385.2	1388.0	1398.9	1398.9	1403.7
32.5°	1489.9	1501.6	1522.0	1543.2	1572.7	1593.9	1593.9	1604.8
35°	1769.0	1773.8	1789.5	1793.0	1799.1	1806.0	1799.2	1804.6
37.5°	1983.2	1961.9	1946.8	1925.6	1912.6	1912.6	1914.0	1912.7
40°	2092.6	2084.4	2077.6	2059.8	2057.0	2056.3	2056.3	2059.1
42.5°	2288.2	2268.4	2257.4	2242.4	2237.6	2236.2	2235.5	2236.9
45°	2542.7	2510.6	2481.2	2466.1	2453.0	2440.8	2444.9	2444.9
47.5°	2838.9	2789.0	2741.0	2715.0	2692.5	2682.2	2675.4	2673.3
50°	3199.4	3129.6	3068.0	3019.5	2986.6	2986.0	2989.4	2967.5
52.5°	3641.3	3531.2	3454.6	3388.9	3358.1	3354.6	3343.8	3331.4
55°	4131.1	4000.4	3873.9	3803.4	3763.1	3741.2	3728.2	3707.7
57.5°	4636.0	4460.1	4278.2	4165.3	4094.2	4045.0	4018.9	4007.3
60°	5025.2	4785.1	4545.0	4363.7	4245.4	4172.2	4127.0	4108.5
62.5°	5178.4	4852.8	4545.0	4306.9	4135.9	4034.6	3973.8	3947.1
65°	4995.8	4610.0	4259.7	3997.0	3806.2	3693.3	3627.0	3598.2
67.5°	4485.4	4144.8	3763.8	3502.4	3306.1	3194.6	3122.8	3101.6
70°	3760.4	3412.1	3048.2	2815.0	2639.8	2548.8	2474.3	2465.4
72.5°	2825.9	2525.6	2213.6	2020.8	1879.8	1729.3	1691.0	1710.2
75°	1811.4	1530.2	1252.6	1078.8	950.2	806.5	751.1	764.8
77.5°	857.8	664.2	479.6	370.8	311.2	266.1	254.5	247.6
80°	318.1	257.9	227.8	216.2	208.0	200.4	195.0	188.8
82.5°	205.9	201.1	195.0	192.9	186.8	177.2	159.4	151.9
85°	153.9	153.9	145.7	146.4	141.6	129.3	112.8	104.0
87.5°	45.2	40.4	37.0	34.2	33.6	30.1	21.9	19.2
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)