

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: P147335

Luminaire Tested: **TLM-F02-LED-E1-5MQ**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P147335  
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-F02-LED-E1-5MQ  
Description: TALON MEDIUM LED SITE LUMINAIRE  
(2) LIGHTBARS WITH AccuLED OPTICS - TYPE 5 SQUARE MEDIUM  
Light Source: (14) 4000K CCT, 70 CRI LEDs  
Ballast/Driver: -

**Summary**

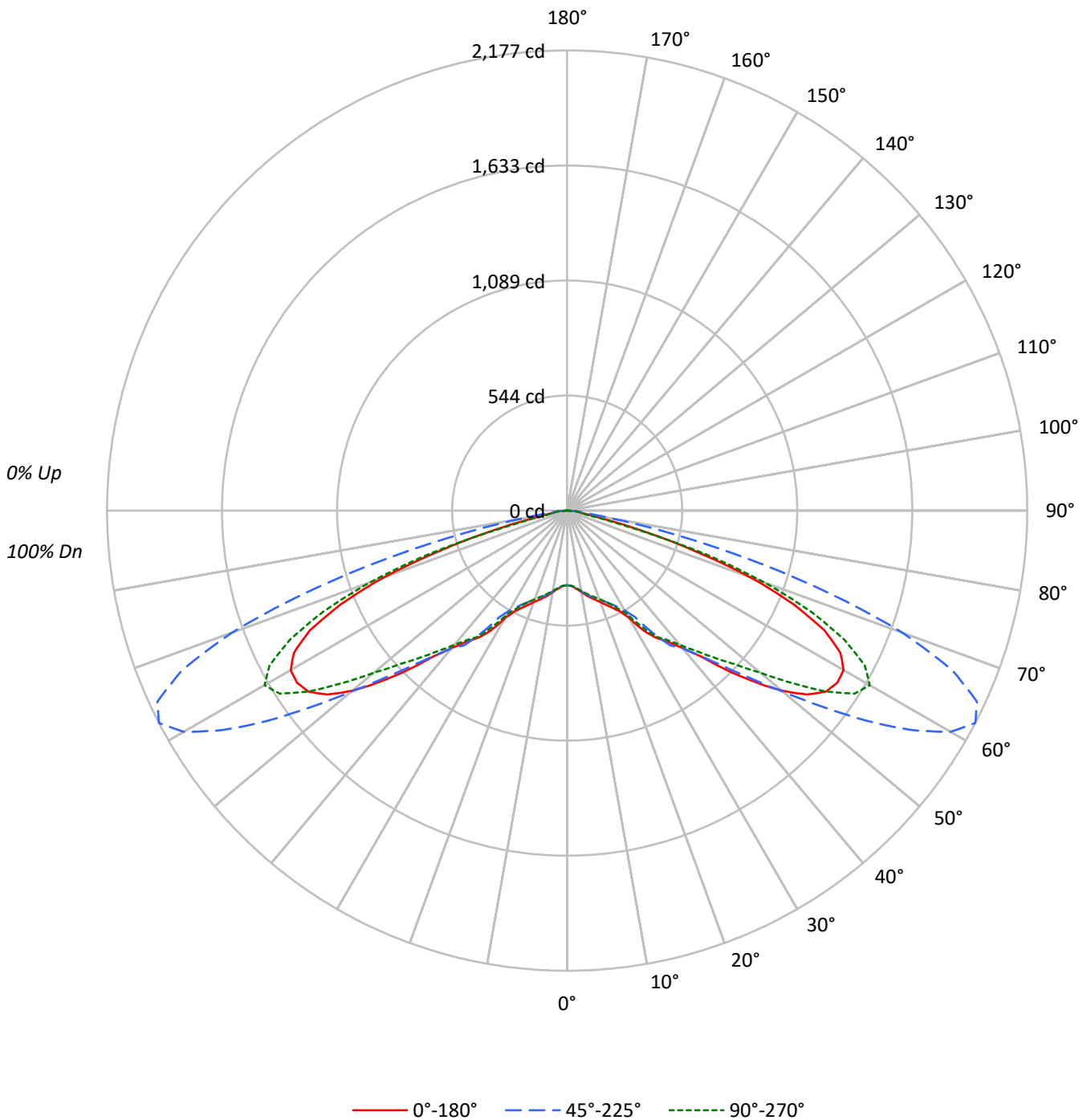
Lumens per Lamp: N/A  
Luminaire Lumens: 5322.6 lumens  
Efficiency: N/A  
Efficacy: 96.8 lumens/watt  
Spacing Criteria (0/90/45): 3.55 / 3.67 / 3.6  
Luminous Opening: Rectangular (W 0.33' x L: 1' x H: 0')  
CIE Type: Direct

Input Watts (W): 55  
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°	11524	11524	11524
5°	11912	11846	11820
10°	12960	12824	12758
15°	14385	14115	13977
20°	15988	15606	15474
25°	18250	17509	17649
30°	22045	20565	21269
35°	29267	28192	28905
40°	36091	36193	35269
45°	49164	47766	45368
50°	67236	67582	60574
55°	84926	98665	84812
60°	98500	136571	107815
65°	103723	165105	111711
70°	87987	160944	94577
75°	44638	112982	38766
80°	14163	39240	14257
85°	15344	20359	15644



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	35.4	0.7
10°-20°	119.7	2.2
20°-30°	231.4	4.3
30°-40°	448.1	8.4
40°-50°	809.1	15.2
50°-60°	1406.8	26.4
60°-70°	1597.1	30.0
70°-80°	619.2	11.6
80°-90°	55.9	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°	386.5	7.3
0°-40°	834.6	15.7
0°-60°	3050.5	57.3
0°-90°	5322.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5322.6	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	353	353	353	353	353	
5°	364	363	362	362	361	36
15°	426	423	418	415	414	122
25°	507	497	486	487	490	239
35°	735	721	708	720	726	459
45°	1066	1041	1036	995	984	835
55°	1493	1565	1735	1544	1491	1315
65°	1344	1543	2139	1661	1447	1281
75°	354	495	896	469	308	429
85°	41	59	54	59	42	40
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°	353.3	353.3	353.3	353.3	353.3	353.3	353.3	353.3	353.3	353.3	353.3
2.5°	355.5	356.6	356.4	355.8	355.8	355.8	355.6	354.7	354.4	355.0	355.5
5°	363.8	363.8	363.8	363.8	363.2	363.2	362.7	362.2	362.4	361.8	361.6
7.5°	376.5	375.6	375.6	375.3	375.4	374.8	374.0	372.9	373.2	372.8	372.6
10°	391.3	391.6	390.8	391.6	390.2	390.0	388.8	388.3	388.0	387.2	387.2
12.5°	409.2	408.4	408.4	407.8	407.2	406.7	405.0	404.8	403.7	403.2	402.3
15°	426.0	425.7	424.6	423.5	423.2	422.7	420.8	419.6	419.4	418.0	416.9
17.5°	442.8	442.2	440.8	440.2	439.2	438.4	436.7	435.0	434.2	433.7	432.3
20°	460.6	460.1	458.7	457.6	456.2	455.2	452.6	451.2	450.4	449.6	448.6
22.5°	482.9	481.8	479.6	477.7	474.6	473.6	470.3	468.4	467.0	465.9	465.3
25°	507.1	507.4	504.4	501.9	498.3	495.3	491.2	489.0	487.6	486.5	486.2
27.5°	537.4	537.7	535.0	531.4	525.9	522.6	517.1	514.3	513.5	512.4	512.1
30°	585.3	582.8	578.2	572.3	567.4	560.2	552.2	549.5	546.8	546.0	546.0
32.5°	673.3	672.0	668.2	653.8	647.2	632.3	618.3	610.3	601.2	596.8	594.1
35°	735.0	734.4	731.4	726.4	722.4	719.3	711.0	709.6	708.0	708.0	710.2
37.5°	780.4	777.1	776.6	777.4	776.2	776.8	783.4	792.5	800.2	804.0	803.6
40°	847.6	842.9	845.6	843.7	841.2	840.6	842.8	846.4	850.0	850.0	849.2
42.5°	935.3	937.5	938.6	930.6	925.4	924.0	929.2	928.2	931.8	930.4	926.8
45°	1065.8	1064.4	1062.4	1052.8	1044.6	1038.0	1039.3	1037.4	1037.7	1035.5	1032.8
47.5°	1197.3	1202.0	1194.0	1189.3	1180.0	1175.3	1179.2	1175.8	1182.2	1170.6	1165.1
50°	1325.0	1328.3	1325.5	1318.9	1318.9	1325.6	1330.2	1336.2	1345.1	1331.8	1312.0
52.5°	1429.5	1432.2	1436.4	1441.9	1455.4	1469.4	1489.2	1510.4	1527.2	1524.8	1502.2
55°	1493.4	1496.7	1503.6	1522.6	1546.8	1583.6	1628.5	1677.8	1716.2	1735.0	1718.4
57.5°	1514.8	1517.3	1536.1	1558.9	1596.6	1651.4	1726.4	1811.4	1885.5	1932.6	1925.2
60°	1509.9	1509.9	1528.9	1560.2	1613.0	1685.8	1792.0	1909.7	2023.1	2093.5	2083.1
62.5°	1457.9	1460.6	1487.9	1525.6	1589.4	1676.4	1803.0	1953.4	2089.1	2176.6	2168.1
65°	1343.9	1345.8	1375.3	1420.2	1491.4	1594.4	1732.8	1899.6	2055.0	2139.2	2123.2
67.5°	1159.8	1161.8	1185.7	1236.4	1311.8	1419.4	1568.8	1752.3	1904.5	1971.1	1923.2
70°	922.6	928.2	943.6	997.2	1054.4	1159.9	1297.4	1481.0	1624.6	1687.6	1634.8
72.5°	628.8	642.8	661.6	709.2	763.9	851.4	960.9	1115.6	1230.8	1303.8	1256.7
75°	354.2	374.0	379.8	415.8	460.9	530.0	610.0	721.0	837.4	896.5	839.9
77.5°	153.0	169.2	176.4	193.2	228.4	257.3	306.0	380.8	470.8	512.4	444.4
80°	75.4	79.2	82.2	87.5	97.4	106.8	129.8	162.6	199.5	208.9	166.2
82.5°	58.3	61.1	66.4	70.4	72.9	75.4	77.6	82.0	85.6	87.5	82.6
85°	41.0	44.6	50.4	55.0	57.8	59.7	61.6	63.0	59.7	54.4	57.2
87.5°	10.8	14.0	19.6	21.2	23.9	25.3	24.8	25.6	23.1	16.8	18.8
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°	353.3	353.3	353.3	353.3	353.3	353.3	353.3	353.3
2.5°	355.2	355.0	355.2	355.2	355.2	355.0	355.0	355.0
5°	361.6	361.6	361.8	361.3	361.3	361.6	361.3	361.0
7.5°	372.3	372.0	372.0	371.8	372.0	371.8	371.8	371.5
10°	386.6	386.1	386.4	385.6	385.5	385.2	385.2	385.2
12.5°	402.0	401.2	401.5	400.6	399.3	399.6	399.8	399.6
15°	416.9	416.0	415.2	414.7	413.9	414.2	414.2	413.9
17.5°	432.0	430.4	430.1	429.3	429.0	429.0	429.0	429.3
20°	447.7	446.6	446.3	445.5	445.2	446.0	446.3	445.8
22.5°	464.5	464.0	464.5	464.0	464.8	465.3	465.6	465.0
25°	485.6	485.1	486.0	487.9	489.0	489.6	490.9	490.4
27.5°	513.0	512.4	514.3	517.0	518.7	521.4	522.8	523.4
30°	548.2	550.7	551.7	557.2	558.4	562.8	562.8	564.7
32.5°	599.4	604.0	612.2	620.8	632.6	641.2	641.2	645.6
35°	711.6	713.6	719.8	721.2	723.7	726.5	723.7	725.9
37.5°	797.8	789.2	783.2	774.7	769.4	769.4	770.0	769.4
40°	841.8	838.4	835.7	828.6	827.4	827.2	827.2	828.3
42.5°	920.4	912.4	908.1	902.0	900.0	899.6	899.2	899.8
45°	1022.8	1009.9	998.0	992.0	986.8	981.8	983.5	983.5
47.5°	1142.0	1121.9	1102.6	1092.2	1083.1	1079.0	1076.2	1075.4
50°	1287.0	1258.9	1234.2	1214.6	1201.4	1201.2	1202.5	1193.7
52.5°	1464.8	1420.4	1389.6	1363.2	1350.8	1349.5	1345.0	1340.1
55°	1661.8	1609.2	1558.3	1530.0	1513.8	1505.0	1499.7	1491.4
57.5°	1864.9	1794.2	1721.0	1675.6	1647.0	1627.1	1616.6	1612.0
60°	2021.4	1924.8	1828.2	1755.4	1707.7	1678.2	1660.2	1652.7
62.5°	2083.1	1952.1	1828.3	1732.5	1663.7	1623.0	1598.5	1587.8
65°	2009.6	1854.4	1713.5	1607.8	1531.1	1485.6	1459.0	1447.4
67.5°	1804.4	1667.2	1514.0	1408.9	1329.9	1285.0	1256.2	1247.6
70°	1512.6	1372.6	1226.2	1132.4	1061.9	1025.3	995.3	991.7
72.5°	1136.8	1016.0	890.4	812.8	756.2	695.6	680.2	687.9
75°	728.7	615.6	503.8	434.0	382.2	324.4	302.2	307.6
77.5°	345.1	267.2	192.9	149.2	125.2	107.0	102.4	99.6
80°	128.0	103.8	91.6	86.9	83.6	80.6	78.4	75.9
82.5°	82.8	80.9	78.4	77.6	75.1	71.2	64.1	61.1
85°	61.9	61.9	58.6	58.9	57.0	52.0	45.4	41.8
87.5°	18.2	16.2	14.9	13.8	13.5	12.1	8.8	7.7
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)