

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: P147328

Luminaire Tested: **TLM-E02-LED-E1-5MQ-8030**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P147328  
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-E02-LED-E1-5MQ-8030  
Description: TALON MEDIUM LED SITE LUMINAIRE  
(2) LIGHTBARS WITH AccuLED OPTICS - TYPE 5 SQUARE MEDIUM  
Light Source: (42) 3000K CCT, 80 CRI LEDs  
Ballast/Driver: -

**Summary**

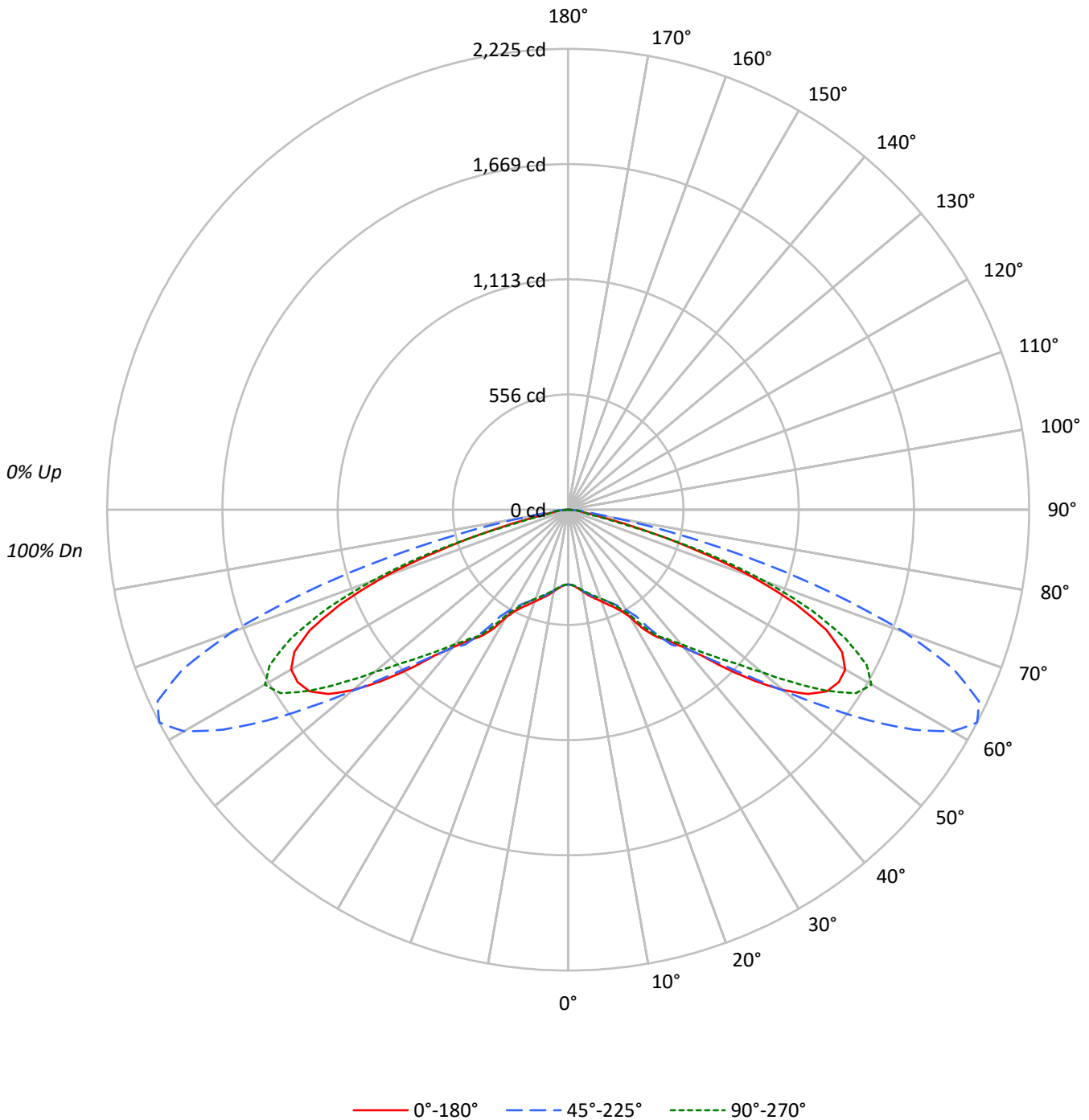
Lumens per Lamp: N/A  
Luminaire Lumens: 5441.6 lumens  
Efficiency: N/A  
Efficacy: 104.4 lumens/watt  
Spacing Criteria (0/90/45): 3.55 / 3.67 / 3.6  
Luminous Opening: Rectangular (W 0.33' x L: 1' x H: 0')  
CIE Type: Direct

Input Watts (W): 52.1  
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°	11782	11782	11782
5°	12177	12115	12085
10°	13248	13109	13046
15°	14706	14433	14287
20°	16349	15957	15821
25°	18661	17901	18042
30°	22534	21024	21743
35°	29920	28821	29550
40°	36895	37002	36056
45°	50262	48832	46382
50°	68738	69094	61929
55°	86825	100872	86712
60°	100698	139631	110229
65°	106046	168794	114212
70°	89961	164549	96694
75°	45634	115515	39635
80°	14482	40104	14576
85°	15681	20846	16018



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	36.2	0.7
10°-20°	122.4	2.2
20°-30°	236.6	4.3
30°-40°	458.1	8.4
40°-50°	827.1	15.2
50°-60°	1438.3	26.4
60°-70°	1632.8	30.0
70°-80°	633.0	11.6
80°-90°	57.1	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°	395.2	7.3
0°-40°	853.3	15.7
0°-60°	3118.7	57.3
0°-90°	5441.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5441.6	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	361	361	361	361	361	
5°	372	371	370	370	369	36
15°	436	432	427	424	423	124
25°	518	508	497	498	501	244
35°	751	737	724	737	742	469
45°	1090	1065	1059	1017	1006	853
55°	1527	1600	1774	1579	1525	1344
65°	1374	1577	2187	1698	1480	1310
75°	362	506	917	479	314	439
85°	42	60	56	60	43	41
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°	361.2	361.2	361.2	361.2	361.2	361.2	361.2	361.2	361.2	361.2	361.2
2.5°	363.5	364.6	364.4	363.8	363.8	363.8	363.5	362.6	362.3	363.0	363.5
5°	371.9	371.9	371.9	371.9	371.4	371.4	370.8	370.2	370.5	370.0	369.7
7.5°	384.8	384.0	384.0	383.7	383.8	383.2	382.4	381.2	381.5	381.2	380.9
10°	400.0	400.3	399.5	400.4	398.9	398.6	397.5	397.0	396.7	395.8	395.8
12.5°	418.3	417.5	417.5	417.0	416.4	415.8	414.1	413.8	412.7	412.1	411.3
15°	435.5	435.2	434.1	433.0	432.7	432.1	430.2	429.0	428.8	427.4	426.2
17.5°	452.6	452.1	450.6	450.2	449.0	448.2	446.4	444.8	444.0	443.4	442.0
20°	471.0	470.4	469.0	467.8	466.4	465.4	462.8	461.4	460.6	459.7	458.6
22.5°	493.8	492.6	490.4	488.4	485.2	484.2	480.8	478.8	477.4	476.3	475.7
25°	518.5	518.8	515.7	513.2	509.5	506.4	502.2	499.9	498.6	497.4	497.1
27.5°	549.4	549.8	546.9	543.2	537.6	534.2	528.6	525.8	525.0	523.8	523.6
30°	598.3	595.8	591.1	585.2	580.1	572.8	564.6	561.8	559.0	558.2	558.2
32.5°	688.4	687.0	683.1	668.4	661.6	646.5	632.2	624.0	614.7	610.2	607.4
35°	751.4	750.9	747.8	742.8	738.5	735.4	727.0	725.6	723.8	723.8	726.1
37.5°	797.8	794.5	793.9	794.8	793.6	794.2	801.0	810.2	818.1	822.0	821.4
40°	866.5	861.7	864.6	862.6	860.0	859.4	861.7	865.4	869.0	869.0	868.2
42.5°	956.2	958.5	959.6	951.4	946.1	944.7	950.0	949.0	952.6	951.2	947.5
45°	1089.6	1088.2	1086.2	1076.4	1067.9	1061.2	1062.6	1060.6	1060.9	1058.6	1055.8
47.5°	1224.0	1228.8	1220.7	1215.9	1206.4	1201.6	1205.5	1202.1	1208.6	1196.8	1191.2
50°	1354.6	1358.0	1355.2	1348.4	1348.4	1355.2	1359.9	1366.1	1375.2	1361.6	1341.4
52.5°	1461.5	1464.4	1468.5	1474.2	1488.0	1502.3	1522.6	1544.2	1561.4	1558.8	1535.8
55°	1526.8	1530.2	1537.2	1556.6	1581.4	1619.0	1664.9	1715.2	1754.6	1773.8	1756.9
57.5°	1548.8	1551.2	1570.4	1593.8	1632.3	1688.2	1765.1	1852.0	1927.6	1975.8	1968.2
60°	1543.6	1543.6	1563.1	1595.2	1649.2	1723.4	1832.0	1952.4	2068.3	2140.4	2129.6
62.5°	1490.4	1493.3	1521.2	1559.7	1624.9	1713.8	1843.2	1997.2	2135.8	2225.3	2216.6
65°	1374.0	1376.0	1406.1	1452.0	1524.8	1630.0	1771.6	1942.0	2101.0	2187.0	2170.8
67.5°	1185.8	1187.8	1212.2	1264.0	1341.1	1451.1	1603.8	1791.6	1947.1	2015.2	1966.2
70°	943.3	949.0	964.7	1019.5	1078.0	1185.8	1326.4	1514.1	1661.0	1725.4	1671.4
72.5°	642.8	657.2	676.3	725.0	781.0	870.4	982.4	1140.5	1258.4	1333.0	1284.8
75°	362.1	382.4	388.2	425.0	471.2	541.8	623.7	737.1	856.1	916.6	858.6
77.5°	156.4	173.0	180.4	197.5	233.5	263.0	312.8	389.4	481.4	523.8	454.4
80°	77.1	81.0	84.2	89.5	99.6	109.2	132.8	166.2	204.0	213.5	170.0
82.5°	59.6	62.4	67.8	72.0	74.6	77.1	79.4	83.8	87.5	89.4	84.4
85°	41.9	45.6	51.5	56.3	59.1	61.0	63.0	64.4	61.0	55.7	58.5
87.5°	11.0	14.3	20.0	21.6	24.4	25.8	25.3	26.2	23.6	17.2	19.1
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°	361.2	361.2	361.2	361.2	361.2	361.2	361.2	361.2
2.5°	363.2	362.9	363.2	363.2	363.2	363.0	362.9	362.9
5°	369.6	369.6	370.0	369.4	369.4	369.7	369.4	369.1
7.5°	380.7	380.4	380.4	380.0	380.4	380.0	380.0	379.8
10°	395.3	394.7	395.0	394.2	394.2	393.8	393.8	393.9
12.5°	411.0	410.2	410.4	409.6	408.2	408.5	408.8	408.5
15°	426.2	425.4	424.6	424.0	423.1	423.4	423.4	423.1
17.5°	441.7	440.0	439.7	438.8	438.6	438.6	438.6	438.9
20°	457.8	456.6	456.3	455.4	455.2	456.0	456.4	455.8
22.5°	474.9	474.3	474.8	474.3	475.2	475.7	476.0	475.4
25°	496.6	496.0	496.8	498.8	499.9	500.4	501.8	501.3
27.5°	524.4	523.8	525.8	528.6	530.3	533.2	534.5	535.1
30°	560.4	563.0	564.1	569.7	570.8	575.3	575.3	577.3
32.5°	612.8	617.5	626.0	634.7	646.8	655.5	655.5	660.0
35°	727.5	729.5	736.0	737.4	739.9	742.7	739.9	742.1
37.5°	815.6	806.8	800.7	792.0	786.6	786.6	787.2	786.6
40°	860.6	857.2	854.4	847.1	846.0	845.7	845.7	846.8
42.5°	941.0	932.9	928.4	922.2	920.2	919.6	919.4	920.0
45°	1045.7	1032.4	1020.4	1014.2	1008.8	1003.8	1005.4	1005.5
47.5°	1167.6	1147.0	1127.2	1116.6	1107.3	1103.1	1100.2	1099.4
50°	1315.8	1287.1	1261.8	1241.8	1228.3	1228.0	1229.4	1220.4
52.5°	1497.6	1452.2	1420.7	1393.7	1381.0	1379.6	1375.1	1370.1
55°	1699.0	1645.2	1593.2	1564.2	1547.6	1538.6	1533.2	1524.8
57.5°	1906.6	1834.2	1759.4	1713.0	1683.8	1663.5	1652.8	1648.0
60°	2066.6	1967.9	1869.2	1794.6	1745.9	1715.8	1697.2	1689.7
62.5°	2129.6	1995.8	1869.2	1771.2	1701.0	1659.2	1634.2	1623.3
65°	2054.6	1895.9	1751.8	1643.8	1565.4	1519.0	1491.6	1479.8
67.5°	1844.6	1704.6	1547.8	1440.4	1359.7	1313.8	1284.2	1275.6
70°	1546.4	1403.2	1253.6	1157.6	1085.6	1048.2	1017.6	1013.9
72.5°	1162.2	1038.7	910.4	831.0	773.1	711.2	695.4	703.3
75°	745.0	629.3	515.1	443.6	390.8	331.6	308.9	314.5
77.5°	352.8	273.2	197.2	152.5	128.0	109.4	104.6	101.8
80°	130.8	106.0	93.6	88.9	85.6	82.4	80.2	77.6
82.5°	84.7	82.8	80.2	79.4	76.8	72.8	65.6	62.5
85°	63.3	63.3	59.9	60.2	58.2	53.2	46.4	42.8
87.5°	18.6	16.6	15.2	14.0	13.8	12.4	9.0	7.9
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)