

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: P147850

Luminaire Tested: **TLM-E02-LED-E1-5WQ**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P147850  
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-E02-LED-E1-5WQ  
Description: TALON MEDIUM LED SITE LUMINAIRE  
(2) LIGHTBARS WITH AccuLED OPTICS - TYPE 5 SQUARE WIDE  
Light Source: (42) 4000K CCT, 70 CRI LEDs  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 6367.6 lumens  
Efficiency: N/A  
Efficacy: 122.2 lumens/watt  
Spacing Criteria (0/90/45): 3.9 / 3.92 / 3.98  
Luminous Opening: Rectangular (W 0.33' x L: 1' x H: 0')  
CIE Type: Direct

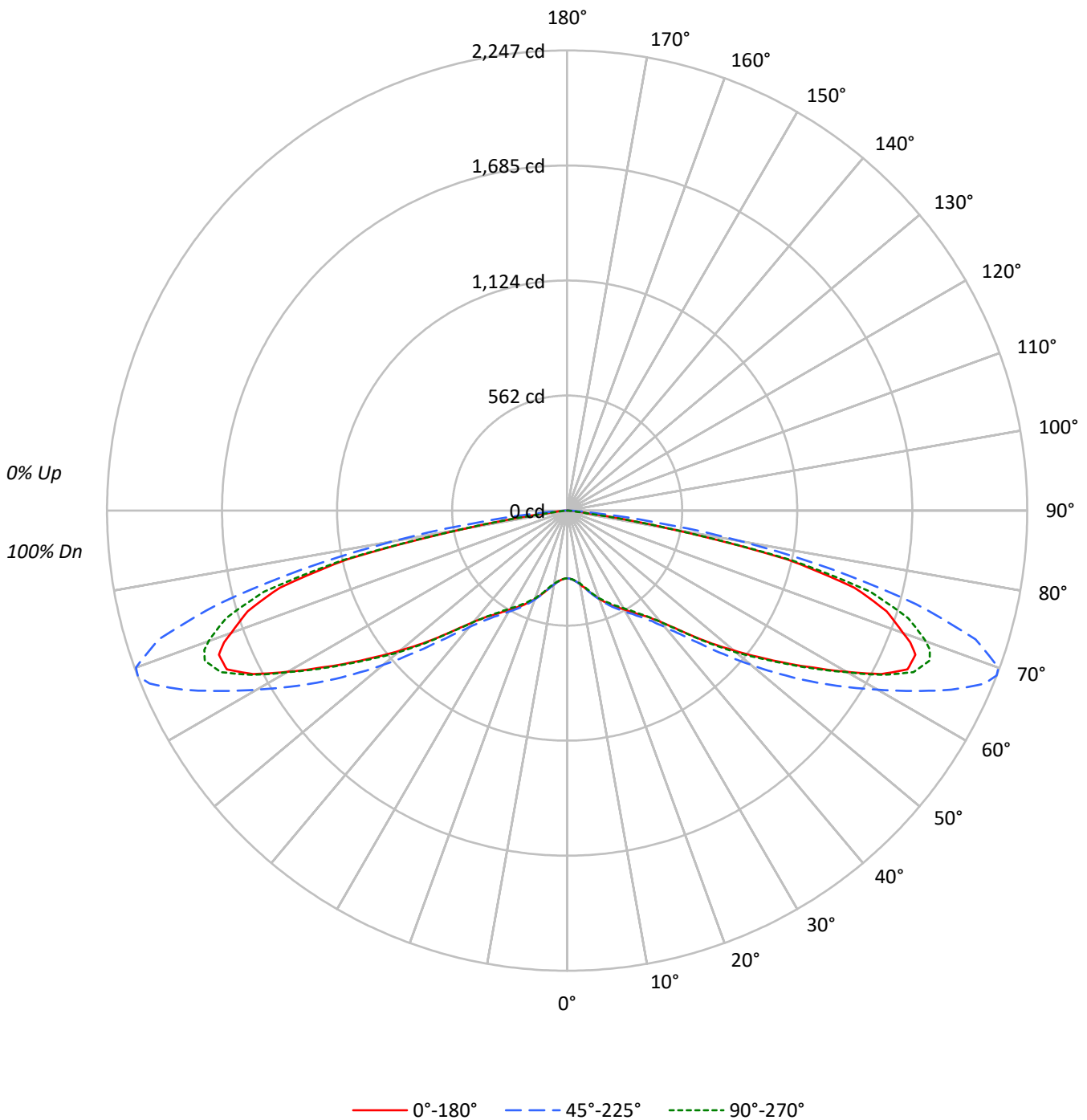
Input Watts (W): 52.1  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	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°	10787	10787	10787
5°	11132	11132	11090
10°	12122	12099	11990
15°	13754	13821	13619
20°	15922	16061	15783
25°	18330	18618	18067
30°	20990	21468	20742
35°	24688	25353	24477
40°	30176	31564	30176
45°	39855	42438	40007
50°	53891	59473	54637
55°	73661	82759	74081
60°	102636	114117	103027
65°	141549	159764	144019
70°	166323	213692	177643
75°	182990	222146	193160
80°	92548	161917	95291
85°	11976	43899	9244



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	33.2	0.5
10°-20°	117.2	1.8
20°-30°	237.4	3.7
30°-40°	398.0	6.3
40°-50°	702.1	11.0
50°-60°	1238.1	19.4
60°-70°	1890.3	29.7
70°-80°	1579.5	24.8
80°-90°	171.6	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°	387.9	6.1
0°-40°	785.9	12.3
0°-60°	2726.1	42.8
0°-90°	6367.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6367.6	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	331	331	331	331	331	
5°	340	341	340	339	339	33
15°	407	409	409	406	403	117
25°	509	512	517	508	502	237
35°	620	624	637	623	615	394
45°	864	884	920	892	867	679
55°	1295	1357	1455	1368	1303	1174
65°	1834	1933	2070	1948	1866	1755
75°	1452	1534	1763	1632	1533	1398
85°	32	53	117	46	25	105
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°	330.7	330.7	330.7	330.7	330.7	330.7	330.7	330.7	330.7	330.7	330.7
2.5°	333.3	334.0	333.3	333.3	333.3	333.3	333.3	332.7	332.7	332.7	333.3
5°	340.0	340.7	340.0	340.7	340.7	340.7	340.7	340.0	340.0	340.0	340.0
7.5°	350.7	350.7	350.7	351.3	350.7	350.7	351.3	350.7	350.7	350.7	350.7
10°	366.0	365.3	365.3	365.3	365.3	365.3	366.0	366.0	366.0	366.0	365.3
12.5°	384.7	384.0	384.7	384.7	385.3	385.3	385.3	385.3	385.3	385.3	384.7
15°	407.3	407.3	407.3	408.0	409.3	409.3	408.7	409.3	409.3	409.3	409.3
17.5°	432.7	434.0	432.7	433.3	434.0	433.3	434.7	435.3	436.0	435.3	433.3
20°	458.7	459.3	459.3	459.3	459.3	460.7	461.3	461.3	463.3	462.7	462.0
22.5°	483.3	484.7	484.7	485.3	485.3	487.3	487.3	487.3	488.7	490.0	488.7
25°	509.3	508.7	508.7	510.0	510.7	513.3	513.3	514.7	516.7	517.3	516.0
27.5°	532.7	532.0	532.0	534.0	534.7	538.0	538.0	540.7	542.0	542.7	541.3
30°	557.3	557.3	556.7	558.7	560.7	563.3	564.7	567.3	569.3	570.0	568.7
32.5°	586.7	585.3	586.0	587.3	588.7	591.3	593.3	596.7	599.3	600.0	598.7
35°	620.0	618.0	618.7	620.0	622.0	626.0	629.3	631.3	635.3	636.7	634.0
37.5°	656.7	657.3	656.7	660.0	663.3	668.0	672.0	674.7	678.7	680.7	678.7
40°	708.7	706.7	708.7	712.0	717.3	723.3	731.3	733.3	737.3	741.3	736.7
42.5°	776.0	774.7	779.3	782.0	788.0	794.7	804.7	810.0	816.0	818.7	814.7
45°	864.0	864.0	869.3	870.0	879.3	888.0	902.0	908.7	920.0	920.0	920.0
47.5°	961.3	965.3	968.7	975.3	982.0	998.0	1012.0	1026.7	1037.3	1038.7	1036.7
50°	1062.0	1066.0	1076.0	1085.3	1100.0	1120.0	1135.3	1154.7	1164.0	1172.0	1169.3
52.5°	1173.3	1174.0	1186.0	1198.0	1219.3	1241.3	1266.0	1286.0	1302.7	1310.0	1304.0
55°	1295.3	1296.7	1307.3	1320.0	1344.0	1369.3	1400.0	1420.7	1442.0	1455.3	1445.3
57.5°	1427.3	1428.0	1438.7	1454.0	1482.7	1508.0	1537.3	1566.7	1586.7	1598.7	1592.0
60°	1573.3	1576.7	1584.7	1604.0	1631.3	1658.0	1687.3	1713.3	1736.7	1749.3	1742.7
62.5°	1729.3	1732.7	1744.0	1759.3	1783.3	1812.7	1840.7	1874.0	1893.3	1907.3	1897.3
65°	1834.0	1840.0	1858.0	1878.7	1914.0	1952.0	1984.7	2030.0	2053.3	2070.0	2060.7
67.5°	1840.7	1844.0	1866.0	1897.3	1944.7	2002.0	2068.7	2139.3	2185.3	2207.3	2191.3
69°	1795.3	1800.0	1821.3	1856.7	1909.3	1976.0	2055.3	2143.3	2214.0	2246.7	2231.3
70°	1744.0	1754.0	1777.3	1816.0	1867.3	1937.3	2019.3	2113.3	2196.0	2240.7	2229.3
72.5°	1636.0	1638.7	1654.0	1684.7	1724.0	1782.0	1859.3	1948.0	2026.7	2090.7	2100.0
75°	1452.0	1460.7	1472.0	1492.7	1512.7	1554.7	1606.7	1667.3	1713.3	1762.7	1764.7
77.5°	1097.3	1123.3	1132.0	1136.7	1145.3	1178.7	1224.0	1276.7	1314.7	1322.7	1321.3
80°	492.7	527.3	535.3	573.3	596.7	652.0	721.3	802.0	856.0	862.0	847.3
82.5°	96.7	103.3	120.7	150.7	205.3	238.0	283.3	340.0	392.0	422.0	404.0
85°	32.0	34.0	39.3	43.3	50.0	56.7	68.7	85.3	106.0	117.3	104.7
87.5°	12.7	12.7	14.7	16.0	17.3	17.3	17.3	16.0	15.3	12.7	11.3
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°	330.7	330.7	330.7	330.7	330.7	330.7	330.7	330.7
2.5°	332.7	332.7	332.7	332.7	332.7	332.7	332.7	332.7
5°	340.0	339.3	339.3	338.7	338.7	338.7	338.7	338.7
7.5°	350.0	349.3	348.7	349.3	348.7	348.7	348.7	348.7
10°	365.3	364.0	363.3	362.7	362.7	362.7	362.0	362.0
12.5°	383.3	383.3	382.7	382.0	380.7	381.3	380.7	379.3
15°	408.0	406.7	406.0	405.3	404.0	404.0	404.0	403.3
17.5°	432.7	431.3	431.3	429.3	428.7	428.7	428.7	429.3
20°	460.0	458.0	456.7	455.3	454.0	454.7	453.3	454.7
22.5°	487.3	484.7	483.3	481.3	479.3	479.3	478.7	477.3
25°	514.0	510.7	509.3	507.3	504.7	504.7	503.3	502.0
27.5°	539.3	536.0	534.7	530.7	528.0	527.3	526.0	525.3
30°	567.3	563.3	561.3	557.3	553.3	552.7	550.7	550.7
32.5°	596.7	592.7	591.3	585.3	582.0	582.0	580.7	579.3
35°	633.3	627.3	626.0	620.0	615.3	615.3	614.0	614.7
37.5°	676.7	672.0	667.3	662.7	657.3	656.7	655.3	654.0
40°	734.7	729.3	724.0	717.3	712.7	711.3	709.3	708.7
42.5°	812.0	806.7	796.0	790.7	786.0	782.0	781.3	780.7
45°	910.7	904.0	896.7	886.7	880.7	872.0	870.7	867.3
47.5°	1029.3	1016.7	1004.0	995.3	986.0	976.0	974.0	968.7
50°	1155.3	1145.3	1124.0	1110.0	1095.3	1085.3	1078.7	1076.7
52.5°	1290.7	1272.0	1250.7	1232.0	1210.7	1197.3	1185.3	1182.0
55°	1432.0	1405.3	1378.7	1356.7	1335.3	1319.3	1308.0	1302.7
57.5°	1573.3	1544.0	1514.7	1490.7	1472.7	1452.0	1440.7	1438.0
60°	1720.7	1692.7	1662.7	1638.7	1616.7	1598.7	1592.0	1579.3
62.5°	1876.7	1847.3	1819.3	1796.0	1768.0	1755.3	1744.0	1736.7
65°	2030.0	1996.0	1960.7	1936.0	1908.0	1890.0	1876.0	1866.0
67.5°	2148.7	2097.3	2050.0	2008.7	1970.7	1942.7	1924.7	1915.3
69°	2182.0	2118.0	2057.3	2003.3	1958.7	1927.3	1907.3	1898.0
70°	2178.0	2107.3	2040.7	1981.3	1932.7	1899.3	1880.0	1862.7
72.5°	2054.7	1990.0	1916.0	1851.3	1807.3	1775.3	1756.0	1746.7
75°	1753.3	1710.0	1656.7	1606.7	1574.7	1556.0	1532.0	1532.7
77.5°	1276.7	1278.0	1242.0	1190.7	1154.7	1148.0	1137.3	1126.7
80°	792.0	728.7	687.3	632.0	591.3	556.0	540.7	507.3
82.5°	365.3	285.3	221.3	167.3	128.7	100.7	88.0	72.0
85°	81.3	62.0	51.3	41.3	35.3	32.7	26.7	24.7
87.5°	11.3	10.0	9.3	8.7	7.3	5.3	4.0	3.3
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)