

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: P148390

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

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P148390  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (P33676)  
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-E1-5XQ  
Description: TALON MEDIUM LED SITE LUMINAIRE  
(4) LIGHTBARS WITH AccuLED OPTICS - TYPE 5 SQUARE EXTRA WIDE  
Light Source: (84) 4000K CCT, 70 CRI LEDs  
Ballast/Driver: -

**Summary**

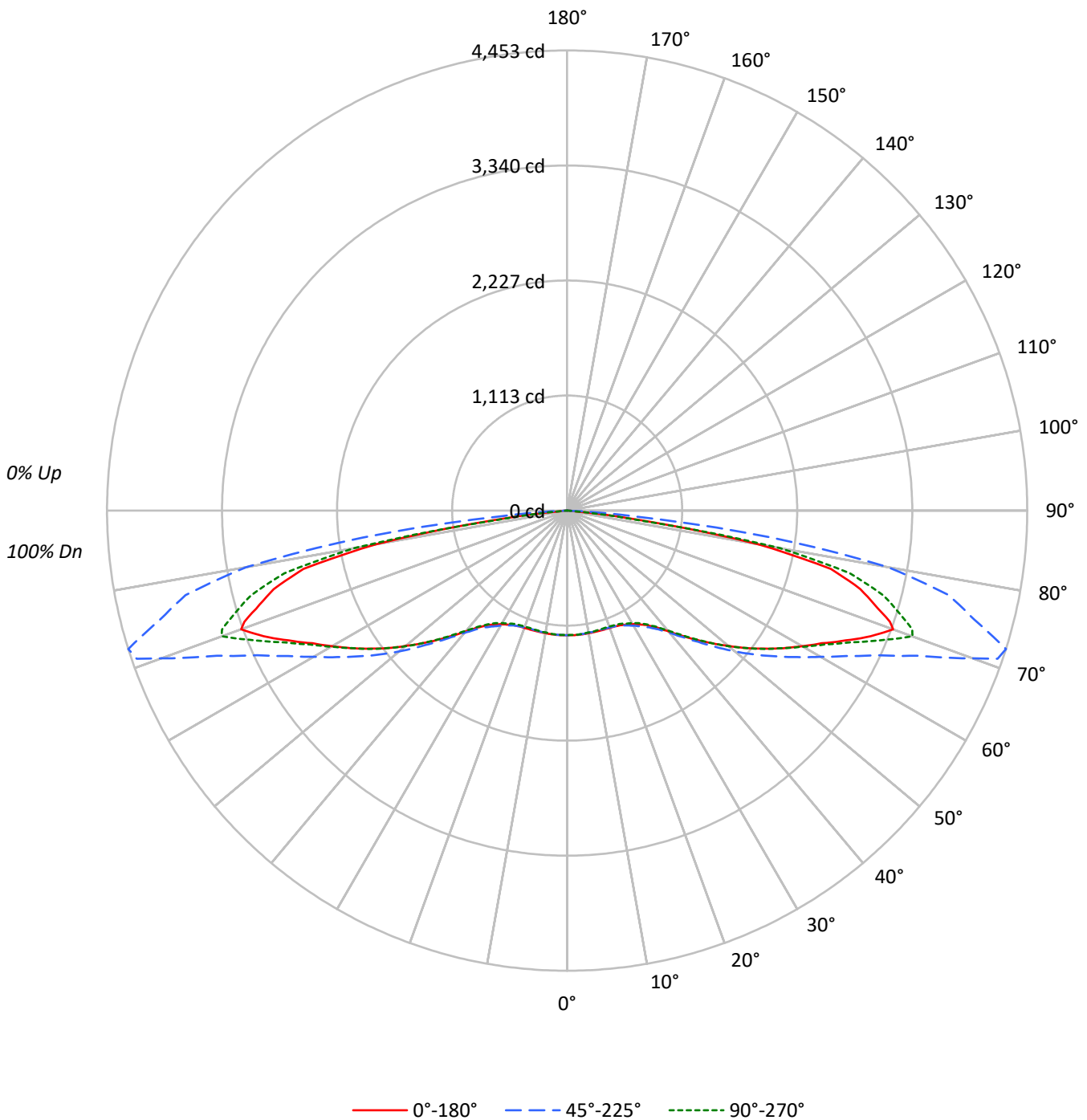
Lumens per Lamp: N/A  
Luminaire Lumens: 12721.5 lumens  
Efficiency: N/A  
Efficacy: 130.9 lumens/watt  
Spacing Criteria (0/90/45): 2.11 / 2.1 / 2.7  
Luminous Opening: Rectangular (W 0.67' x L: 1' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 97.2  
Input Voltage (V): NR  
Input Current (Ain): 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	102	95	88	82	99	92	86	80	88	82	78	83	79	75	79	76	73	70
2	88	76	66	57	85	74	64	56	70	62	55	66	59	53	63	57	52	49
3	77	62	51	42	74	60	50	41	57	48	40	54	46	39	51	44	38	36
4	69	53	41	32	66	51	40	31	48	38	31	46	37	30	43	36	30	27
5	62	45	34	25	60	44	33	25	42	32	24	39	31	24	37	30	24	21
6	57	40	29	20	54	39	28	20	37	27	20	35	26	20	33	25	19	17
7	52	35	25	17	50	34	24	17	33	24	17	31	23	17	30	22	16	14
8	48	32	22	15	46	31	21	15	30	21	14	28	20	14	27	20	14	12
9	45	29	19	13	43	28	19	13	27	18	12	26	18	12	25	17	12	10
10	42	26	17	11	40	26	17	11	25	17	11	24	16	11	23	16	11	9

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	19364	19364	19364
5°	19470	19438	19426
10°	19653	19576	19543
15°	20049	19925	19869
20°	20653	20567	20424
25°	21685	21743	21424
30°	23549	23851	23326
35°	26543	27051	26371
40°	32003	32375	31737
45°	40137	40844	39987
50°	50902	52986	51022
55°	65262	68811	65391
60°	84312	90941	84633
65°	113055	125854	114701
70°	157701	196486	167095
75°	182456	253107	196646
80°	173619	291551	192622
85°	14120	118212	9217



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	114.9	0.9
10°-20°	339.8	2.7
20°-30°	569.0	4.5
30°-40°	867.5	6.8
40°-50°	1385.2	10.9
50°-60°	2129.8	16.7
60°-70°	3101.0	24.4
70°-80°	3493.3	27.5
80°-90°	721.1	5.7
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°	1023.7	8.0
0°-40°	1891.2	14.9
0°-60°	5406.1	42.5
0°-90°	12721.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	12721.5	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1205	1205	1205	1205	1205	
5°	1207	1206	1205	1204	1205	115
15°	1205	1202	1198	1193	1195	342
25°	1223	1225	1227	1215	1209	570
35°	1353	1363	1379	1355	1345	864
45°	1767	1766	1798	1769	1760	1378
55°	2330	2337	2457	2347	2335	2096
65°	2974	2986	3311	3029	3017	2964
75°	2939	3126	4078	3383	3168	2994
85°	77	202	641	162	50	477
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°	1205.3	1205.3	1205.3	1205.3	1205.3	1205.3	1205.3	1205.3	1205.3	1205.3	1205.3
2.5°	1207.4	1208.0	1207.7	1207.0	1207.3	1207.0	1206.4	1206.0	1203.7	1205.0	1207.0
5°	1207.3	1206.7	1206.3	1206.0	1206.0	1207.0	1206.0	1205.0	1204.6	1205.3	1204.4
7.5°	1206.6	1205.4	1204.7	1204.3	1204.7	1205.0	1204.0	1202.6	1203.6	1202.6	1201.3
10°	1204.7	1203.6	1204.0	1202.6	1203.0	1202.6	1201.3	1200.3	1201.0	1200.0	1198.4
12.5°	1205.4	1203.6	1203.4	1202.6	1202.4	1202.0	1200.4	1198.7	1199.0	1198.3	1196.7
15°	1205.4	1204.3	1204.0	1202.7	1202.3	1201.7	1199.6	1199.0	1199.0	1198.0	1196.0
17.5°	1206.0	1205.3	1205.3	1203.7	1203.0	1202.7	1200.3	1199.3	1200.3	1198.4	1197.0
20°	1208.0	1207.3	1207.7	1206.6	1205.3	1205.4	1203.7	1203.0	1203.3	1203.0	1199.3
22.5°	1212.0	1212.0	1212.7	1212.4	1212.0	1212.3	1211.0	1211.0	1211.3	1211.4	1208.3
25°	1223.3	1223.0	1223.7	1223.7	1224.0	1226.3	1225.4	1225.0	1226.7	1226.6	1223.7
27.5°	1244.6	1244.0	1244.7	1245.3	1247.0	1250.0	1249.3	1250.4	1253.0	1252.3	1249.7
30°	1269.4	1268.7	1270.3	1272.4	1273.7	1278.4	1276.3	1281.3	1283.6	1285.7	1283.7
32.5°	1305.4	1305.3	1308.3	1309.6	1312.7	1317.3	1318.0	1322.0	1325.0	1328.4	1326.0
35°	1353.4	1352.6	1355.0	1357.4	1361.0	1365.4	1367.0	1372.4	1377.0	1379.3	1375.0
37.5°	1426.6	1423.0	1427.4	1428.6	1431.7	1432.7	1437.4	1444.0	1449.0	1448.3	1445.3
40°	1526.0	1525.4	1523.7	1521.6	1526.4	1528.0	1528.0	1537.0	1545.0	1543.7	1543.3
42.5°	1642.0	1639.0	1637.0	1637.0	1639.6	1640.4	1650.6	1657.3	1663.0	1664.3	1663.0
45°	1766.6	1763.7	1764.4	1763.0	1764.0	1768.3	1774.3	1786.7	1797.3	1797.7	1792.0
47.5°	1900.6	1891.3	1898.6	1888.4	1894.7	1898.0	1913.0	1931.0	1949.7	1953.0	1948.0
50°	2036.6	2035.7	2035.0	2033.0	2036.0	2043.3	2061.6	2090.0	2108.0	2120.0	2112.0
52.5°	2185.4	2180.4	2178.0	2174.7	2177.7	2192.0	2217.6	2242.4	2274.6	2288.4	2277.3
55°	2330.0	2328.3	2319.7	2319.3	2325.7	2348.0	2376.0	2406.3	2441.4	2456.7	2452.6
57.5°	2478.7	2469.0	2466.3	2462.3	2475.0	2496.0	2530.4	2585.0	2621.3	2638.7	2628.6
60°	2624.0	2616.6	2611.0	2609.6	2618.4	2647.6	2697.0	2762.6	2807.7	2830.3	2814.3
62.5°	2780.0	2775.4	2768.6	2761.0	2779.4	2817.0	2878.4	2951.0	3017.3	3045.4	3021.0
65°	2974.0	2964.3	2957.0	2947.3	2962.3	3009.6	3086.6	3189.0	3278.0	3310.7	3293.4
67.5°	3178.7	3169.7	3170.3	3164.4	3191.0	3256.7	3356.0	3495.0	3614.3	3670.0	3637.3
70°	3357.3	3362.3	3363.6	3388.0	3434.0	3534.0	3699.3	3917.0	4098.0	4183.0	4148.0
71°	3304.7	3315.7	3332.7	3358.0	3437.4	3555.7	3781.4	4045.0	4261.0	4405.0	4356.6
72.5°	3155.3	3162.0	3170.7	3209.4	3299.0	3455.7	3688.0	3989.3	4267.0	4453.3	4397.3
75°	2939.4	2945.7	2948.6	2975.7	3057.3	3194.0	3406.7	3674.0	3919.0	4077.6	4062.0
77.5°	2613.4	2614.3	2637.6	2679.4	2771.0	2927.3	3151.3	3428.7	3659.0	3782.3	3704.0
80°	1876.6	1864.0	1888.0	1941.6	2055.0	2234.4	2463.7	2780.4	3036.0	3151.3	3030.0
82.5°	714.0	752.7	813.6	902.4	940.7	1140.0	1354.0	1540.0	1755.3	1996.0	1935.7
85°	76.6	86.4	108.3	134.4	169.7	234.7	324.4	442.7	545.6	641.3	569.3
87.5°	28.6	29.3	32.7	37.7	38.4	40.0	42.7	49.6	46.3	40.0	32.3
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°	1205.3	1205.3	1205.3	1205.3	1205.3	1205.3	1205.3	1205.3
2.5°	1205.3	1205.7	1205.3	1205.7	1205.7	1204.3	1204.6	1204.0
5°	1205.0	1204.0	1204.3	1204.6	1204.3	1205.0	1204.0	1204.6
7.5°	1203.3	1201.3	1202.0	1202.0	1201.3	1202.4	1201.6	1201.4
10°	1200.0	1197.4	1198.7	1198.0	1197.7	1198.0	1198.0	1198.0
12.5°	1197.0	1195.3	1195.7	1195.4	1195.0	1196.0	1195.7	1196.0
15°	1196.3	1193.7	1193.3	1192.6	1193.0	1193.7	1193.7	1194.6
17.5°	1195.7	1192.3	1192.0	1191.3	1191.7	1193.0	1193.3	1192.6
20°	1197.7	1195.0	1194.3	1193.7	1193.3	1195.0	1194.7	1194.6
22.5°	1207.0	1203.7	1203.3	1200.6	1199.6	1200.6	1200.0	1200.0
25°	1222.0	1218.0	1216.7	1213.0	1210.4	1210.3	1209.3	1208.6
27.5°	1249.0	1243.0	1241.6	1238.7	1235.0	1235.6	1233.7	1233.4
30°	1280.4	1275.0	1270.3	1266.0	1261.6	1260.0	1257.7	1257.4
32.5°	1321.3	1315.3	1309.7	1304.3	1298.3	1296.0	1292.0	1290.0
35°	1371.6	1363.6	1357.0	1353.4	1347.3	1344.3	1341.6	1344.6
37.5°	1442.0	1432.3	1429.0	1424.6	1420.7	1416.0	1417.0	1416.0
40°	1539.3	1530.7	1527.3	1519.7	1518.7	1513.3	1516.7	1513.3
42.5°	1659.7	1643.6	1641.4	1635.4	1633.3	1630.4	1631.7	1629.3
45°	1790.6	1776.3	1773.7	1764.0	1764.4	1757.4	1760.0	1760.0
47.5°	1938.0	1923.0	1910.7	1903.7	1901.0	1896.7	1899.0	1898.6
50°	2090.0	2069.6	2056.0	2042.3	2036.3	2038.0	2033.3	2041.4
52.5°	2253.3	2223.0	2203.6	2190.7	2179.3	2181.6	2182.3	2184.6
55°	2422.3	2383.6	2355.7	2338.7	2328.3	2329.0	2332.0	2334.6
57.5°	2592.3	2544.0	2506.0	2480.7	2474.0	2477.0	2477.0	2476.6
60°	2768.7	2710.7	2661.7	2633.0	2627.0	2625.3	2638.3	2634.0
62.5°	2958.0	2888.3	2837.7	2801.0	2792.4	2798.3	2810.0	2807.3
65°	3209.0	3112.7	3047.3	3011.0	2996.3	3002.4	3018.0	3017.3
67.5°	3532.7	3398.0	3311.7	3265.0	3254.4	3261.7	3270.3	3278.6
70°	4016.6	3824.3	3701.0	3600.0	3556.7	3548.4	3557.0	3557.3
71°	4187.0	3966.0	3769.7	3646.3	3575.3	3545.3	3547.7	3532.6
72.5°	4180.0	3907.6	3678.0	3549.0	3450.3	3426.3	3414.7	3396.7
75°	3898.3	3653.0	3453.6	3313.0	3218.0	3189.7	3169.0	3168.0
77.5°	3535.3	3354.4	3134.7	2985.7	2870.0	2823.0	2802.0	2801.4
80°	2842.0	2571.0	2410.3	2320.6	2181.0	2140.7	2098.0	2082.0
82.5°	1718.7	1343.0	1092.0	970.4	903.0	743.7	667.3	631.4
85°	400.4	284.4	196.0	128.7	92.7	73.7	56.7	50.0
87.5°	27.0	21.3	19.0	15.4	11.7	11.3	7.0	6.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)