

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: P148405

Luminaire Tested: **TLM-F05-LED-E1-5XQ**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P148405
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-F05-LED-E1-5XQ
Description: TALON MEDIUM LED SITE LUMINAIRE
(5) LIGHTBARS WITH AccuLED OPTICS - TYPE 5 SQUARE EXTRA WIDE
Light Source: (35) 4000K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 13127.4 lumens
Efficiency: N/A
Efficacy: 98.5 lumens/watt
Spacing Criteria (0/90/45): 2.11 / 2.1 / 2.7
Luminous Opening: Rectangular (W 0.83' x L: 1' x H: 0')
CIE Type: Direct

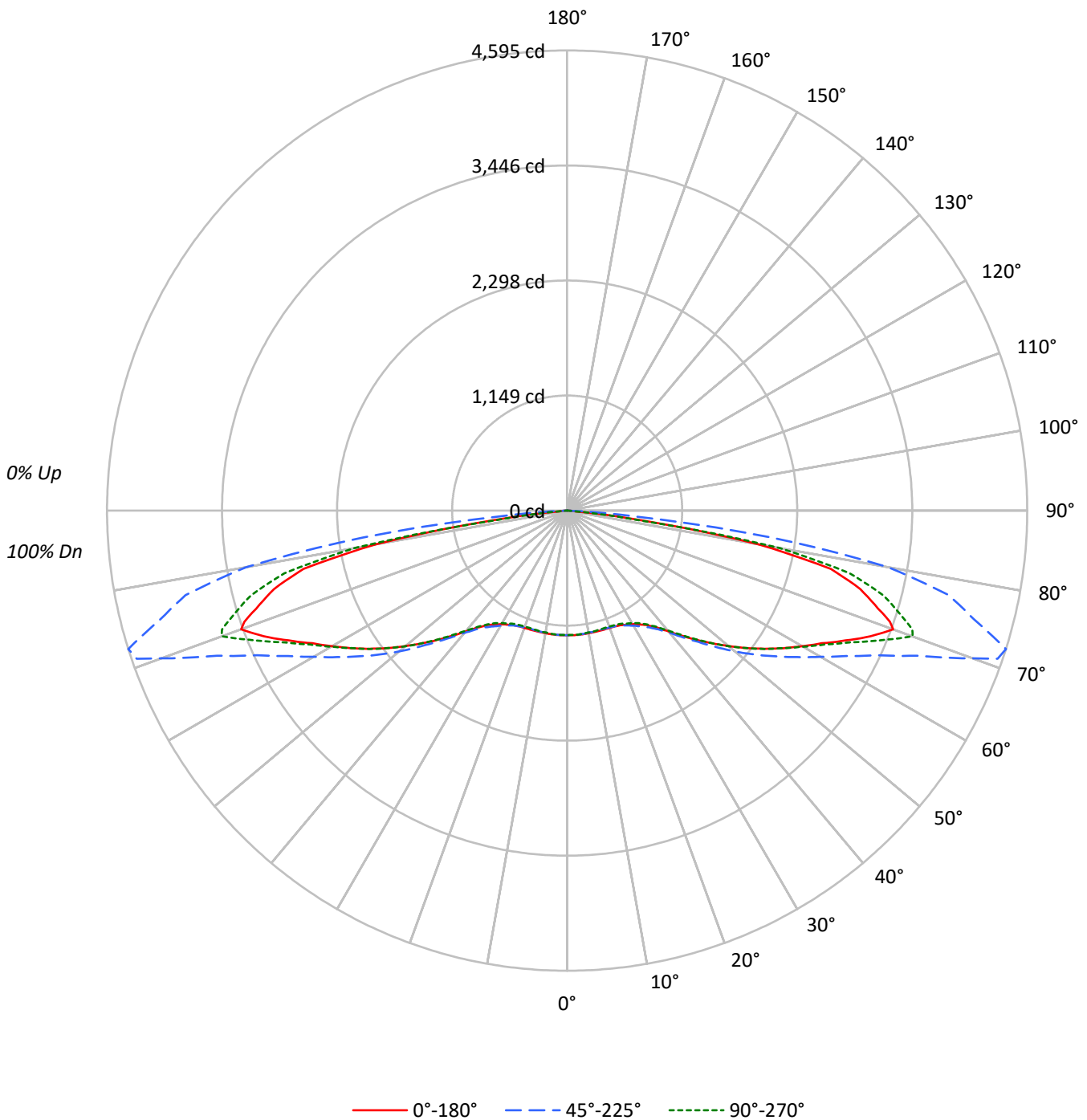
Input Watts (W): 133.3
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	16130	16130	16130
5°	16218	16192	16183
10°	16370	16307	16279
15°	16699	16597	16552
20°	17204	17132	17014
25°	18064	18113	17846
30°	19614	19867	19428
35°	22111	22535	21968
40°	26659	26967	26437
45°	33434	34021	33310
50°	42401	44136	42498
55°	54364	57316	54472
60°	70230	75752	70497
65°	94173	104833	95545
70°	131362	163671	139188
75°	151979	210839	163804
80°	144631	242862	160449
85°	11770	98474	7678



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	118.5	0.9
10°-20°	350.7	2.7
20°-30°	587.2	4.5
30°-40°	895.2	6.8
40°-50°	1429.4	10.9
50°-60°	2197.7	16.7
60°-70°	3199.9	24.4
70°-80°	3604.7	27.5
80°-90°	744.1	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°	1056.4	8.0
0°-40°	1951.5	14.9
0°-60°	5578.6	42.5
0°-90°	13127.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	13127.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1244	1244	1244	1244	1244	
5°	1246	1245	1244	1243	1243	119
15°	1244	1240	1236	1231	1233	353
25°	1262	1264	1266	1254	1247	588
35°	1397	1407	1423	1398	1388	892
45°	1823	1823	1855	1825	1816	1422
55°	2404	2411	2535	2422	2409	2163
65°	3069	3081	3416	3126	3114	3058
75°	3033	3225	4208	3491	3269	3089
85°	79	209	662	168	52	492
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°	1243.8	1243.8	1243.8	1243.8	1243.8	1243.8	1243.8	1243.8	1243.8	1243.8	1243.8
2.5°	1245.8	1246.5	1246.2	1245.5	1245.8	1245.5	1244.8	1244.4	1242.0	1243.4	1245.5
5°	1245.8	1245.2	1244.8	1244.4	1244.5	1245.5	1244.4	1243.4	1243.1	1243.8	1242.8
7.5°	1245.2	1243.8	1243.1	1242.8	1243.1	1243.4	1242.4	1241.0	1242.1	1241.0	1239.7
10°	1243.1	1242.1	1242.4	1241.0	1241.4	1241.0	1239.7	1238.6	1239.3	1238.3	1236.6
12.5°	1243.8	1242.0	1241.7	1241.0	1240.7	1240.3	1238.6	1236.9	1237.2	1236.6	1234.8
15°	1243.8	1242.8	1242.4	1241.0	1240.7	1240.0	1237.9	1237.2	1237.2	1236.2	1234.2
17.5°	1244.5	1243.8	1243.8	1242.1	1241.4	1241.0	1238.6	1237.6	1238.6	1236.6	1235.2
20°	1246.6	1245.8	1246.2	1245.2	1243.8	1243.8	1242.1	1241.4	1241.7	1241.4	1237.6
22.5°	1250.7	1250.7	1251.4	1251.0	1250.6	1251.0	1249.6	1249.6	1250.0	1250.0	1246.9
25°	1262.4	1262.0	1262.7	1262.7	1263.0	1265.4	1264.4	1264.1	1265.8	1265.8	1262.7
27.5°	1284.4	1283.7	1284.4	1285.1	1286.8	1289.9	1289.2	1290.2	1293.0	1292.3	1289.6
30°	1309.8	1309.2	1310.9	1313.0	1314.3	1319.1	1317.1	1322.2	1324.6	1326.7	1324.6
32.5°	1347.0	1347.0	1350.1	1351.4	1354.6	1359.4	1360.1	1364.2	1367.2	1370.7	1368.3
35°	1396.6	1395.8	1398.2	1400.6	1404.4	1408.9	1410.6	1416.1	1420.9	1423.4	1418.8
37.5°	1472.1	1468.4	1472.9	1474.2	1477.4	1478.4	1483.2	1490.1	1495.2	1494.6	1491.4
40°	1574.7	1574.0	1572.3	1570.2	1575.0	1576.8	1576.8	1586.1	1594.3	1592.9	1592.6
42.5°	1694.4	1691.3	1689.2	1689.2	1692.0	1692.6	1703.3	1710.2	1716.0	1717.4	1716.0
45°	1823.0	1819.9	1820.6	1819.3	1820.3	1824.8	1831.0	1843.6	1854.7	1855.0	1849.2
47.5°	1961.4	1951.7	1959.2	1948.6	1955.1	1958.6	1974.0	1992.6	2011.9	2015.3	2010.1
50°	2101.6	2100.6	2100.0	2097.9	2101.0	2108.5	2127.4	2156.7	2175.2	2187.6	2179.4
52.5°	2255.1	2249.9	2247.5	2244.0	2247.2	2262.0	2288.4	2313.9	2347.2	2361.4	2350.0
55°	2404.4	2402.6	2393.7	2393.4	2399.9	2422.9	2451.8	2483.1	2519.2	2535.0	2530.9
57.5°	2557.8	2547.8	2545.0	2540.9	2554.0	2575.6	2611.0	2667.5	2705.0	2722.8	2712.6
60°	2707.7	2700.1	2694.3	2693.0	2701.9	2732.2	2783.0	2850.8	2897.2	2920.6	2904.1
62.5°	2868.7	2863.9	2857.0	2849.1	2868.0	2906.9	2970.2	3045.1	3113.6	3142.5	3117.4
65°	3068.9	3058.9	3051.4	3041.4	3056.8	3105.7	3185.1	3290.8	3382.6	3416.3	3398.4
67.5°	3280.1	3270.8	3271.5	3265.3	3292.8	3360.6	3463.0	3606.5	3729.7	3787.1	3753.4
70°	3464.4	3469.6	3471.0	3496.1	3543.6	3646.8	3817.4	4042.0	4228.8	4316.5	4280.4
71°	3410.1	3421.5	3439.0	3465.2	3547.0	3669.1	3902.0	4174.1	4397.0	4545.5	4495.7
72.5°	3256.0	3262.9	3271.8	3311.7	3404.3	3565.9	3805.7	4116.6	4403.2	4595.4	4537.6
75°	3033.1	3039.7	3042.8	3070.6	3154.9	3295.9	3515.4	3791.2	4044.0	4207.8	4191.6
77.5°	2696.7	2697.7	2721.8	2764.8	2859.4	3020.8	3251.9	3538.0	3775.8	3903.0	3822.2
80°	1936.6	1923.5	1948.2	2003.6	2120.6	2305.6	2542.2	2869.0	3132.9	3251.9	3126.7
82.5°	736.8	776.7	839.6	931.1	970.7	1176.4	1397.2	1589.1	1811.4	2059.7	1997.4
85°	79.1	89.1	111.8	138.6	175.1	242.2	334.7	456.8	563.0	661.8	587.5
87.5°	29.6	30.2	33.7	38.9	39.6	41.3	44.1	51.3	47.8	41.3	33.4
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°	1243.8	1243.8	1243.8	1243.8	1243.8	1243.8	1243.8	1243.8
2.5°	1243.8	1244.2	1243.8	1244.1	1244.2	1242.8	1243.1	1242.4
5°	1243.4	1242.4	1242.8	1243.1	1242.8	1243.4	1242.4	1243.1
7.5°	1241.7	1239.7	1240.4	1240.4	1239.7	1240.7	1240.0	1239.7
10°	1238.3	1235.5	1236.9	1236.2	1235.9	1236.2	1236.2	1236.2
12.5°	1235.2	1233.5	1233.8	1233.4	1233.1	1234.2	1233.8	1234.2
15°	1234.5	1231.8	1231.4	1230.8	1231.1	1231.8	1231.8	1232.8
17.5°	1233.8	1230.4	1230.0	1229.4	1229.7	1231.1	1231.4	1230.8
20°	1235.9	1233.1	1232.4	1231.8	1231.4	1233.1	1232.8	1232.8
22.5°	1245.5	1242.1	1241.7	1239.0	1237.9	1239.0	1238.3	1238.2
25°	1261.0	1256.8	1255.5	1251.7	1248.9	1248.9	1247.9	1247.2
27.5°	1288.8	1282.6	1281.3	1278.2	1274.4	1275.1	1273.0	1272.7
30°	1321.2	1315.7	1310.9	1306.4	1301.9	1300.2	1297.8	1297.4
32.5°	1363.5	1357.3	1351.4	1345.9	1339.8	1337.4	1333.2	1331.2
35°	1415.4	1407.2	1400.3	1396.5	1390.3	1387.2	1384.5	1387.6
37.5°	1488.0	1478.0	1474.6	1470.1	1466.0	1461.2	1462.2	1461.1
40°	1588.4	1579.5	1576.1	1568.2	1567.1	1561.6	1565.1	1561.6
42.5°	1712.6	1696.1	1693.7	1687.5	1685.4	1682.3	1683.8	1681.3
45°	1847.8	1833.0	1830.2	1820.2	1820.6	1813.4	1816.1	1816.2
47.5°	1999.8	1984.4	1971.6	1964.4	1961.6	1957.2	1959.6	1959.2
50°	2156.7	2135.7	2121.6	2107.5	2101.3	2103.0	2098.2	2106.4
52.5°	2325.2	2293.9	2274.0	2260.6	2248.9	2251.3	2252.0	2254.4
55°	2499.6	2459.7	2430.8	2413.2	2402.6	2403.3	2406.4	2409.2
57.5°	2675.0	2625.2	2586.0	2559.8	2552.9	2556.0	2556.0	2555.7
60°	2857.0	2797.2	2746.6	2717.0	2710.8	2709.1	2722.5	2718.0
62.5°	3052.4	2980.5	2928.2	2890.4	2881.4	2887.6	2899.6	2896.9
65°	3311.4	3212.0	3144.6	3107.1	3091.9	3098.2	3114.3	3113.6
67.5°	3645.4	3506.4	3417.3	3369.2	3358.2	3365.8	3374.7	3383.3
70°	4144.8	3946.3	3819.1	3714.8	3670.2	3661.6	3670.5	3670.8
71°	4320.6	4092.5	3889.9	3762.7	3689.4	3658.4	3660.8	3645.4
72.5°	4313.4	4032.4	3795.4	3662.2	3560.4	3535.6	3523.6	3505.0
75°	4022.7	3769.5	3563.9	3418.7	3320.7	3291.4	3270.1	3269.1
77.5°	3648.2	3461.4	3234.7	3081.0	2961.6	2913.1	2891.4	2890.7
80°	2932.7	2653.0	2487.2	2394.7	2250.6	2209.0	2164.9	2148.4
82.5°	1773.5	1385.9	1126.8	1001.3	931.8	767.4	688.6	651.4
85°	413.1	293.4	202.2	132.8	95.6	76.0	58.5	51.6
87.5°	27.9	22.0	19.6	15.8	12.0	11.7	7.2	6.2
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)