

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: P147870

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

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P147870
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-E04-LED-E1-5WQ
Description: TALON MEDIUM LED SITE LUMINAIRE
(4) LIGHTBARS WITH AccuLED OPTICS - TYPE 5 SQUARE WIDE
Light Source: (84) 4000K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

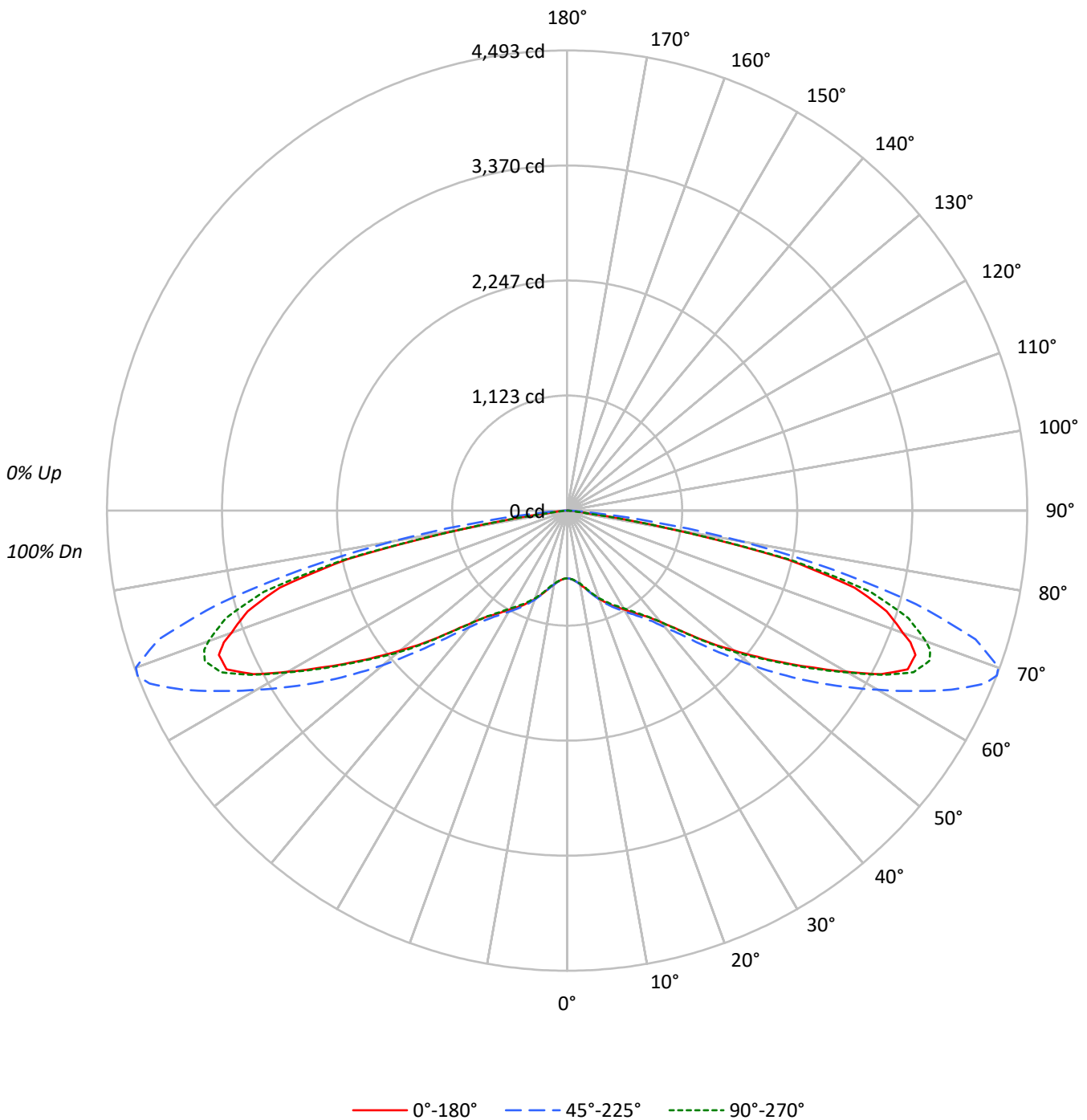
Lumens per Lamp: N/A
Luminaire Lumens: 12735.2 lumens
Efficiency: N/A
Efficacy: 131.0 lumens/watt
Spacing Criteria (0/90/45): 3.9 / 3.92 / 3.98
Luminous Opening: Rectangular (W 0.67' x L: 1' x H: 0')
CIE Type: Direct

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	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°	10624	10624	10624
5°	10966	10966	10923
10°	11941	11920	11811
15°	13550	13617	13417
20°	15683	15819	15546
25°	18058	18341	17797
30°	20679	21148	20430
35°	24319	24972	24110
40°	29724	31095	29724
45°	39260	41805	39413
50°	53086	58585	53819
55°	72564	81527	72973
60°	101107	112417	101492
65°	139437	157379	141869
70°	163840	210498	174987
75°	180259	218824	190271
80°	91158	159501	93878
85°	11797	43263	9088



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	66.4	0.5
10°-20°	234.5	1.8
20°-30°	474.8	3.7
30°-40°	796.1	6.3
40°-50°	1404.2	11.0
50°-60°	2476.3	19.4
60°-70°	3780.6	29.7
70°-80°	3159.1	24.8
80°-90°	343.3	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°	775.7	6.1
0°-40°	1571.8	12.3
0°-60°	5452.3	42.8
0°-90°	12735.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	12735.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	661	661	661	661	661	
5°	680	681	680	678	677	67
15°	815	819	819	811	807	235
25°	1019	1024	1035	1017	1004	473
35°	1240	1248	1273	1246	1229	788
45°	1728	1767	1840	1783	1735	1358
55°	2591	2713	2911	2735	2605	2348
65°	3668	3866	4140	3897	3732	3511
75°	2904	3067	3525	3263	3065	2796
85°	64	107	235	93	49	210
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°	661.3	661.3	661.3	661.3	661.3	661.3	661.3	661.3	661.3	661.3	661.3
2.5°	666.7	668.0	666.7	666.7	666.7	666.7	666.7	665.3	665.3	665.3	666.7
5°	680.0	681.3	680.0	681.3	681.3	681.3	681.3	680.0	680.0	680.0	680.0
7.5°	701.3	701.3	701.3	702.7	701.3	701.3	702.7	701.3	701.3	701.3	701.3
10°	732.0	730.7	730.7	730.7	730.7	730.7	732.0	732.0	732.0	730.7	730.7
12.5°	769.3	768.0	769.3	769.3	770.7	770.7	770.7	770.7	770.7	770.7	769.3
15°	814.7	814.7	814.7	816.0	818.7	818.7	817.3	818.7	818.7	818.7	818.7
17.5°	865.3	868.0	865.3	866.7	868.0	866.7	869.3	870.7	872.0	870.7	866.7
20°	917.3	918.7	918.7	918.7	918.7	921.3	922.7	922.7	926.7	925.3	924.0
22.5°	966.7	969.3	969.3	970.7	970.7	974.7	974.7	974.7	977.3	980.0	977.3
25°	1018.7	1017.3	1017.3	1020.0	1021.3	1026.7	1026.7	1029.3	1033.3	1034.7	1032.0
27.5°	1065.3	1064.0	1064.0	1068.0	1069.3	1076.0	1076.0	1081.3	1084.0	1085.3	1082.7
30°	1114.7	1114.7	1113.3	1117.3	1121.3	1126.7	1129.3	1134.7	1138.7	1140.0	1137.3
32.5°	1173.3	1170.7	1172.0	1174.7	1177.3	1182.7	1186.7	1193.3	1198.7	1200.0	1197.3
35°	1240.0	1236.0	1237.3	1240.0	1244.0	1252.0	1258.7	1262.7	1270.7	1273.3	1268.0
37.5°	1313.3	1314.7	1313.3	1320.0	1326.7	1336.0	1344.0	1349.3	1357.3	1361.3	1357.3
40°	1417.3	1413.3	1417.3	1424.0	1434.7	1446.7	1462.7	1466.7	1474.7	1482.7	1473.3
42.5°	1552.0	1549.3	1558.7	1564.0	1576.0	1589.3	1609.3	1620.0	1632.0	1637.3	1629.3
45°	1728.0	1728.0	1738.7	1740.0	1758.7	1776.0	1804.0	1817.3	1840.0	1840.0	1840.0
47.5°	1922.7	1930.7	1937.3	1950.7	1964.0	1996.0	2024.0	2053.3	2074.7	2077.3	2073.3
50°	2124.0	2132.0	2152.0	2170.7	2200.0	2240.0	2270.7	2309.3	2328.0	2344.0	2338.7
52.5°	2346.7	2348.0	2372.0	2396.0	2438.7	2482.7	2532.0	2572.0	2605.3	2620.0	2608.0
55°	2590.7	2593.3	2614.7	2640.0	2688.0	2738.7	2800.0	2841.3	2884.0	2910.7	2890.7
57.5°	2854.7	2856.0	2877.3	2908.0	2965.3	3016.0	3074.7	3133.3	3173.3	3197.3	3184.0
60°	3146.7	3153.3	3169.3	3208.0	3262.7	3316.0	3374.7	3426.7	3473.3	3498.7	3485.3
62.5°	3458.7	3465.3	3488.0	3518.7	3566.7	3625.3	3681.3	3748.0	3786.7	3814.7	3794.7
65°	3668.0	3680.0	3716.0	3757.3	3828.0	3904.0	3969.3	4060.0	4106.7	4140.0	4121.3
67.5°	3681.3	3688.0	3732.0	3794.7	3889.3	4004.0	4137.3	4278.7	4370.7	4414.7	4382.7
69°	3590.7	3600.0	3642.7	3713.3	3818.7	3952.0	4110.7	4286.7	4428.0	4493.3	4462.7
70°	3488.0	3508.0	3554.7	3632.0	3734.7	3874.7	4038.7	4226.7	4392.0	4481.3	4458.7
72.5°	3272.0	3277.3	3308.0	3369.3	3448.0	3564.0	3718.7	3896.0	4053.3	4181.3	4200.0
75°	2904.0	2921.3	2944.0	2985.3	3025.3	3109.3	3213.3	3334.7	3426.7	3525.3	3529.3
77.5°	2194.7	2246.7	2264.0	2273.3	2290.7	2357.3	2448.0	2553.3	2629.3	2645.3	2642.7
80°	985.3	1054.7	1070.7	1146.7	1193.3	1304.0	1442.7	1604.0	1712.0	1724.0	1694.7
82.5°	193.3	206.7	241.3	301.3	410.7	476.0	566.7	680.0	784.0	844.0	808.0
85°	64.0	68.0	78.7	86.7	100.0	113.3	137.3	170.7	212.0	234.7	209.3
87.5°	25.3	25.3	29.3	32.0	34.7	34.7	34.7	32.0	30.7	25.3	22.7
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°	661.3	661.3	661.3	661.3	661.3	661.3	661.3	661.3
2.5°	665.3	665.3	665.3	665.3	665.3	665.3	665.3	665.3
5°	680.0	678.7	678.7	677.3	677.3	677.3	677.3	677.3
7.5°	700.0	698.7	697.3	698.7	697.3	697.3	697.3	697.3
10°	730.7	728.0	726.7	725.3	725.3	725.3	724.0	724.0
12.5°	766.7	766.7	765.3	764.0	761.3	762.7	761.3	758.7
15°	816.0	813.3	812.0	810.7	808.0	808.0	808.0	806.7
17.5°	865.3	862.7	862.7	858.7	857.3	857.3	857.3	858.7
20°	920.0	916.0	913.3	910.7	908.0	909.3	906.7	909.3
22.5°	974.7	969.3	966.7	962.7	958.7	958.7	957.3	954.7
25°	1028.0	1021.3	1018.7	1014.7	1009.3	1009.3	1006.7	1004.0
27.5°	1078.7	1072.0	1069.3	1061.3	1056.0	1054.7	1052.0	1050.7
30°	1134.7	1126.7	1122.7	1114.7	1106.7	1105.3	1101.3	1101.3
32.5°	1193.3	1185.3	1182.7	1170.7	1164.0	1164.0	1161.3	1158.7
35°	1266.7	1254.7	1252.0	1240.0	1230.7	1230.7	1228.0	1229.3
37.5°	1353.3	1344.0	1334.7	1325.3	1314.7	1313.3	1310.7	1308.0
40°	1469.3	1458.7	1448.0	1434.7	1425.3	1422.7	1418.7	1417.3
42.5°	1624.0	1613.3	1592.0	1581.3	1572.0	1564.0	1562.7	1561.3
45°	1821.3	1808.0	1793.3	1773.3	1761.3	1744.0	1741.3	1734.7
47.5°	2058.7	2033.3	2008.0	1990.7	1972.0	1952.0	1948.0	1937.3
50°	2310.7	2290.7	2248.0	2220.0	2190.7	2170.7	2157.3	2153.3
52.5°	2581.3	2544.0	2501.3	2464.0	2421.3	2394.7	2370.7	2364.0
55°	2864.0	2810.7	2757.3	2713.3	2670.7	2638.7	2616.0	2605.3
57.5°	3146.7	3088.0	3029.3	2981.3	2945.3	2904.0	2881.3	2876.0
60°	3441.3	3385.3	3325.3	3277.3	3233.3	3197.3	3184.0	3158.7
62.5°	3753.3	3694.7	3638.7	3592.0	3536.0	3510.7	3488.0	3473.3
65°	4060.0	3992.0	3921.3	3872.0	3816.0	3780.0	3752.0	3732.0
67.5°	4297.3	4194.7	4100.0	4017.3	3941.3	3885.3	3849.3	3830.7
69°	4364.0	4236.0	4114.7	4006.7	3917.3	3854.7	3814.7	3796.0
70°	4356.0	4214.7	4081.3	3962.7	3865.3	3798.7	3760.0	3725.3
72.5°	4109.3	3980.0	3832.0	3702.7	3614.7	3550.7	3512.0	3493.3
75°	3506.7	3420.0	3313.3	3213.3	3149.3	3112.0	3064.0	3065.3
77.5°	2553.3	2556.0	2484.0	2381.3	2309.3	2296.0	2274.7	2253.3
80°	1584.0	1457.3	1374.7	1264.0	1182.7	1112.0	1081.3	1014.7
82.5°	730.7	570.7	442.7	334.7	257.3	201.3	176.0	144.0
85°	162.7	124.0	102.7	82.7	70.7	65.3	53.3	49.3
87.5°	22.7	20.0	18.7	17.3	14.7	10.7	8.0	6.7
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)