

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: P147874

Luminaire Tested: **TLM-F04-LED-E1-5WQ-7030**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P147874  
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-F04-LED-E1-5WQ-7030  
Description: TALON MEDIUM LED SITE LUMINAIRE  
(4) LIGHTBARS WITH AccuLED OPTICS - TYPE 5 SQUARE WIDE  
Light Source: (28) 3000K CCT, 70 CRI LEDs  
Ballast/Driver: -

**Summary**

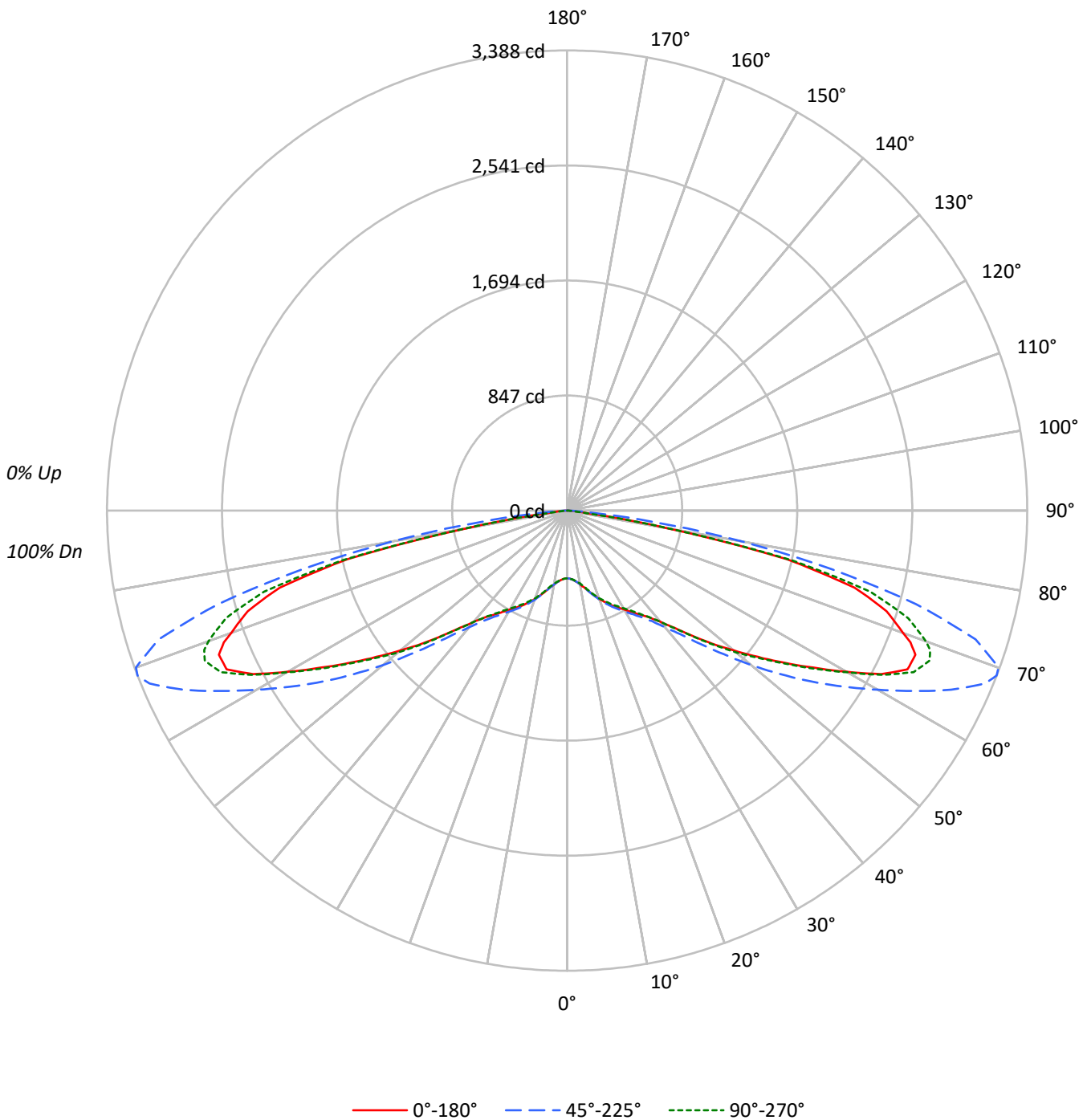
Lumens per Lamp: N/A  
Luminaire Lumens: 9602.2 lumens  
Efficiency: N/A  
Efficacy: 94.0 lumens/watt  
Spacing Criteria (0/90/45): 3.9 / 3.92 / 3.98  
Luminous Opening: Rectangular (W 0.67' x L: 1' x H: 0')  
CIE Type: Direct

Input Watts (W): 102.2  
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°	8010	8010	8010
5°	8268	8268	8236
10°	9003	8987	8905
15°	10217	10267	10116
20°	11826	11928	11721
25°	13616	13828	13419
30°	15592	15946	15405
35°	18338	18830	18179
40°	22413	23445	22413
45°	29602	31520	29716
50°	40027	44174	40580
55°	54711	61469	55022
60°	76234	84762	76523
65°	105132	118662	106968
70°	123533	158715	131941
75°	135914	164995	143462
80°	68731	120264	70785
85°	8903	32608	6857



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	50.1	0.5
10°-20°	176.8	1.8
20°-30°	358.0	3.7
30°-40°	600.2	6.3
40°-50°	1058.8	11.0
50°-60°	1867.1	19.4
60°-70°	2850.5	29.7
70°-80°	2381.9	24.8
80°-90°	258.8	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°	584.9	6.1
0°-40°	1185.1	12.3
0°-60°	4111.0	42.8
0°-90°	9602.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	9602.2	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	499	499	499	499	499	
5°	513	514	513	511	511	50
15°	614	617	617	612	608	177
25°	768	772	780	767	757	357
35°	935	941	960	940	927	594
45°	1303	1333	1387	1345	1308	1024
55°	1953	2046	2195	2062	1964	1770
65°	2766	2915	3122	2938	2814	2647
75°	2190	2313	2658	2460	2311	2109
85°	48	80	177	70	37	159
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°	498.6	498.6	498.6	498.6	498.6	498.6	498.6	498.6	498.6	498.6	498.6
2.5°	502.7	503.7	502.7	502.7	502.7	502.7	502.7	501.7	501.7	501.7	502.7
5°	512.7	513.7	512.7	513.7	513.7	513.7	513.7	512.7	512.7	512.7	512.7
7.5°	528.8	528.8	528.8	529.8	528.8	528.8	529.8	528.8	528.8	528.8	528.8
10°	551.9	550.9	550.9	550.9	550.9	550.9	551.9	551.9	551.9	551.9	550.9
12.5°	580.1	579.1	580.1	580.1	581.1	581.1	581.1	581.1	581.1	581.1	580.1
15°	614.3	614.3	614.3	615.3	617.3	617.3	616.3	617.3	617.3	617.3	617.3
17.5°	652.5	654.5	652.5	653.5	654.5	653.5	655.5	656.5	657.5	656.5	653.5
20°	691.7	692.7	692.7	692.7	692.7	694.7	695.7	695.7	698.7	697.7	696.7
22.5°	728.9	730.9	730.9	731.9	731.9	734.9	734.9	734.9	736.9	738.9	736.9
25°	768.1	767.1	767.1	769.1	770.1	774.1	774.1	776.1	779.1	780.1	778.1
27.5°	803.3	802.2	802.2	805.3	806.3	811.3	811.3	815.3	817.3	818.3	816.3
30°	840.5	840.5	839.4	842.5	845.5	849.5	851.5	855.5	858.5	859.6	857.5
32.5°	884.7	882.7	883.7	885.7	887.7	891.7	894.7	899.8	903.8	904.8	902.8
35°	935.0	931.9	932.9	935.0	938.0	944.0	949.0	952.0	958.1	960.1	956.1
37.5°	990.2	991.3	990.2	995.3	1000.3	1007.3	1013.4	1017.4	1023.4	1026.4	1023.4
40°	1068.7	1065.6	1068.7	1073.7	1081.7	1090.8	1102.8	1105.9	1111.9	1117.9	1110.9
42.5°	1170.2	1168.2	1175.2	1179.2	1188.3	1198.3	1213.4	1221.5	1230.5	1234.5	1228.5
45°	1302.9	1302.9	1310.9	1311.9	1326.0	1339.1	1360.2	1370.3	1387.3	1387.3	1387.3
47.5°	1449.7	1455.7	1460.7	1470.8	1480.8	1505.0	1526.1	1548.2	1564.3	1566.3	1563.3
50°	1601.5	1607.5	1622.6	1636.7	1658.8	1688.9	1712.1	1741.2	1755.3	1767.4	1763.3
52.5°	1769.4	1770.4	1788.5	1806.6	1838.7	1871.9	1909.1	1939.3	1964.4	1975.5	1966.4
55°	1953.3	1955.4	1971.4	1990.5	2026.7	2064.9	2111.2	2142.3	2174.5	2194.6	2179.5
57.5°	2152.4	2153.4	2169.5	2192.6	2235.8	2274.0	2318.3	2362.5	2392.7	2410.8	2400.7
60°	2372.6	2377.6	2389.7	2418.8	2460.0	2500.2	2544.5	2583.7	2618.9	2638.0	2627.9
62.5°	2607.8	2612.8	2629.9	2653.1	2689.2	2733.5	2775.7	2826.0	2855.1	2876.2	2861.2
65°	2765.6	2774.7	2801.8	2833.0	2886.3	2943.6	2992.9	3061.2	3096.4	3121.5	3107.5
67.5°	2775.7	2780.7	2813.9	2861.2	2932.5	3019.0	3119.5	3226.1	3295.5	3328.6	3304.5
69°	2707.3	2714.4	2746.5	2799.8	2879.2	2979.8	3099.4	3232.1	3338.7	3387.9	3364.8
70°	2629.9	2645.0	2680.2	2738.5	2815.9	2921.5	3045.1	3186.9	3311.5	3378.9	3361.8
72.5°	2467.1	2471.1	2494.2	2540.5	2599.8	2687.2	2803.9	2937.6	3056.2	3152.7	3166.8
75°	2189.6	2202.7	2219.8	2250.9	2281.1	2344.4	2422.8	2514.3	2583.7	2658.1	2661.1
77.5°	1654.8	1694.0	1707.0	1714.1	1727.1	1777.4	1845.8	1925.2	1982.5	1994.6	1992.6
80°	742.9	795.2	807.3	864.6	899.8	983.2	1087.8	1209.4	1290.8	1299.9	1277.8
82.5°	145.8	155.8	182.0	227.2	309.6	358.9	427.3	512.7	591.1	636.4	609.2
85°	48.3	51.3	59.3	65.3	75.4	85.5	103.5	128.7	159.8	176.9	157.8
87.5°	19.1	19.1	22.1	24.1	26.1	26.1	26.1	24.1	23.1	19.1	17.1
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°	498.6	498.6	498.6	498.6	498.6	498.6	498.6	498.6
2.5°	501.7	501.7	501.7	501.7	501.7	501.7	501.7	501.7
5°	512.7	511.7	511.7	510.7	510.7	510.7	510.7	510.7
7.5°	527.8	526.8	525.8	526.8	525.8	525.8	525.8	525.8
10°	550.9	548.9	547.9	546.9	546.9	546.9	545.9	545.9
12.5°	578.1	578.1	577.1	576.1	574.0	575.0	574.0	572.0
15°	615.3	613.2	612.2	611.2	609.2	609.2	609.2	608.2
17.5°	652.5	650.4	650.4	647.4	646.4	646.4	646.4	647.4
20°	693.7	690.7	688.6	686.6	684.6	685.6	683.6	685.6
22.5°	734.9	730.9	728.9	725.8	722.8	722.8	721.8	719.8
25°	775.1	770.1	768.1	765.1	761.0	761.0	759.0	757.0
27.5°	813.3	808.3	806.3	800.2	796.2	795.2	793.2	792.2
30°	855.5	849.5	846.5	840.5	834.4	833.4	830.4	830.4
32.5°	899.8	893.7	891.7	882.7	877.6	877.6	875.6	873.6
35°	955.1	946.0	944.0	935.0	927.9	927.9	925.9	926.9
37.5°	1020.4	1013.4	1006.3	999.3	991.3	990.2	988.2	986.2
40°	1107.9	1099.8	1091.8	1081.7	1074.7	1072.7	1069.7	1068.7
42.5°	1224.5	1216.4	1200.4	1192.3	1185.3	1179.2	1178.2	1177.2
45°	1373.3	1363.2	1352.2	1337.1	1328.0	1315.0	1313.0	1307.9
47.5°	1552.2	1533.1	1514.0	1500.9	1486.9	1471.8	1468.8	1460.7
50°	1742.2	1727.1	1695.0	1673.9	1651.7	1636.7	1626.6	1623.6
52.5°	1946.3	1918.2	1886.0	1857.8	1825.7	1805.6	1787.5	1782.4
55°	2159.4	2119.2	2079.0	2045.8	2013.7	1989.5	1972.4	1964.4
57.5°	2372.6	2328.3	2284.1	2247.9	2220.8	2189.6	2172.5	2168.5
60°	2594.7	2552.5	2507.3	2471.1	2437.9	2410.8	2400.7	2381.6
62.5°	2830.0	2785.8	2743.5	2708.3	2666.1	2647.0	2629.9	2618.9
65°	3061.2	3009.9	2956.7	2919.5	2877.2	2850.1	2829.0	2813.9
67.5°	3240.2	3162.8	3091.4	3029.0	2971.7	2929.5	2902.4	2888.3
69°	3290.4	3193.9	3102.4	3021.0	2953.6	2906.4	2876.2	2862.2
70°	3284.4	3177.8	3077.3	2987.8	2914.4	2864.2	2835.0	2808.9
72.5°	3098.4	3000.9	2889.3	2791.8	2725.4	2677.2	2648.0	2634.0
75°	2644.0	2578.7	2498.2	2422.8	2374.6	2346.4	2310.2	2311.2
77.5°	1925.2	1927.2	1872.9	1795.5	1741.2	1731.2	1715.1	1699.0
80°	1194.3	1098.8	1036.5	953.0	891.7	838.4	815.3	765.1
82.5°	550.9	430.3	333.8	252.3	194.0	151.8	132.7	108.6
85°	122.6	93.5	77.4	62.3	53.3	49.3	40.2	37.2
87.5°	17.1	15.1	14.1	13.1	11.1	8.0	6.0	5.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)