

Scaled data based on original data using
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-
State Lighting Products

Test Report Prepared for
Cooper Lighting Solutions
(formerly Eaton)

Brand: STREETWORKS

Report Number: P149635

Luminaire Tested: **TMU-F02-LED-E-U-SL2-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P149635
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (P33726)
Test Lab: INNOVATION CENTER-P3
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: TMU-F02-LED-E-U-SL2-HSS
Description: TALON MEDIUM LED AREA LUMINAIRE
(2) LIGHTBARS WITH AccuLED OPTICS - TYPE 2 W/ SPILL LIGHT CONTROL AND HOUSE SIDE SHIELD
Light Source: (14) 4000K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3027.4 lumens
Efficiency: N/A
Efficacy: 55.0 lumens/watt
Luminous Opening: Rectangular (W 0.33' x L: 1' x H: 0')
IES Classification: Type II - Short - Non-Cutoff
BUG Rating: B0 - U0 - G1

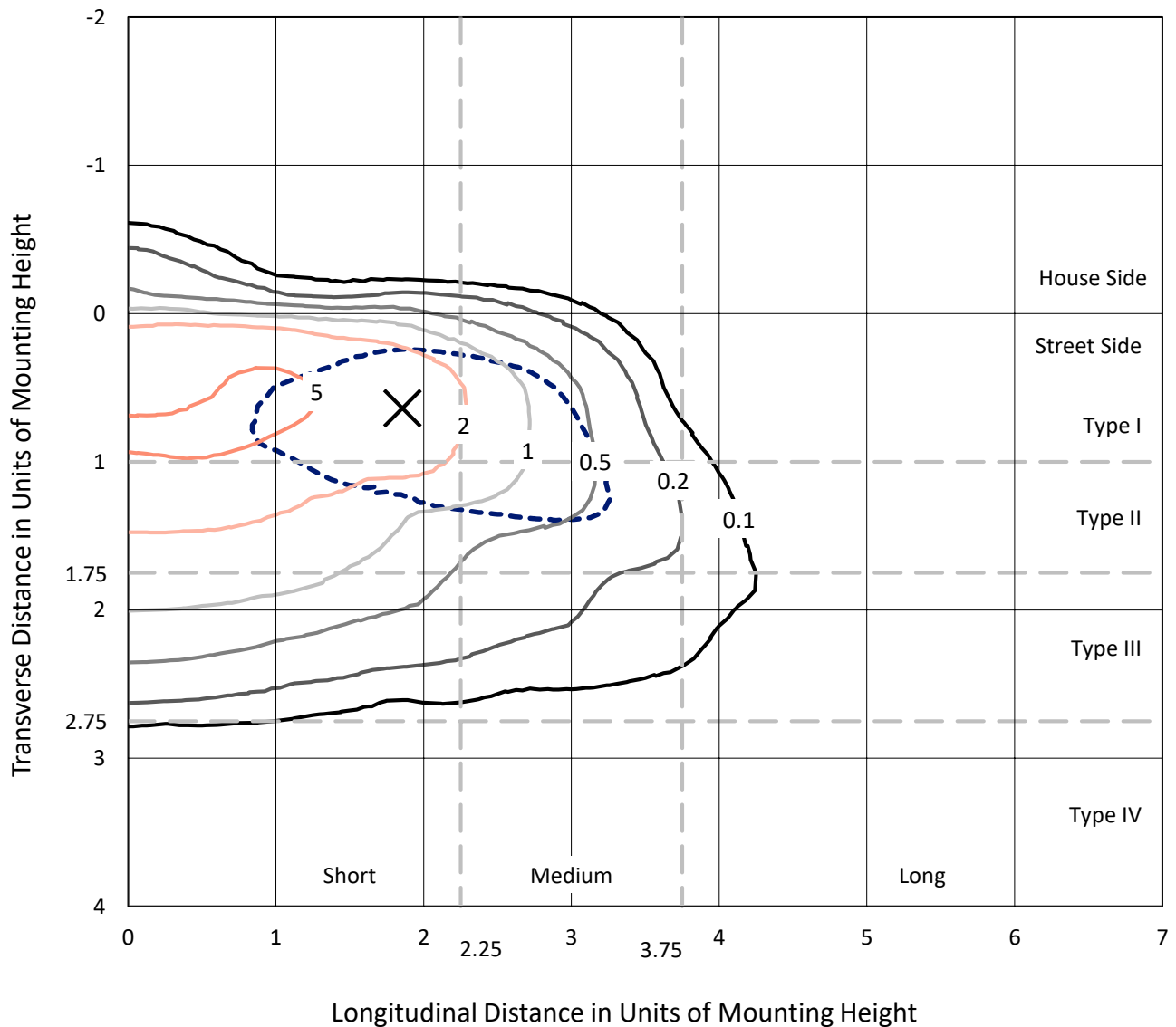
Input Watts (W): 55
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

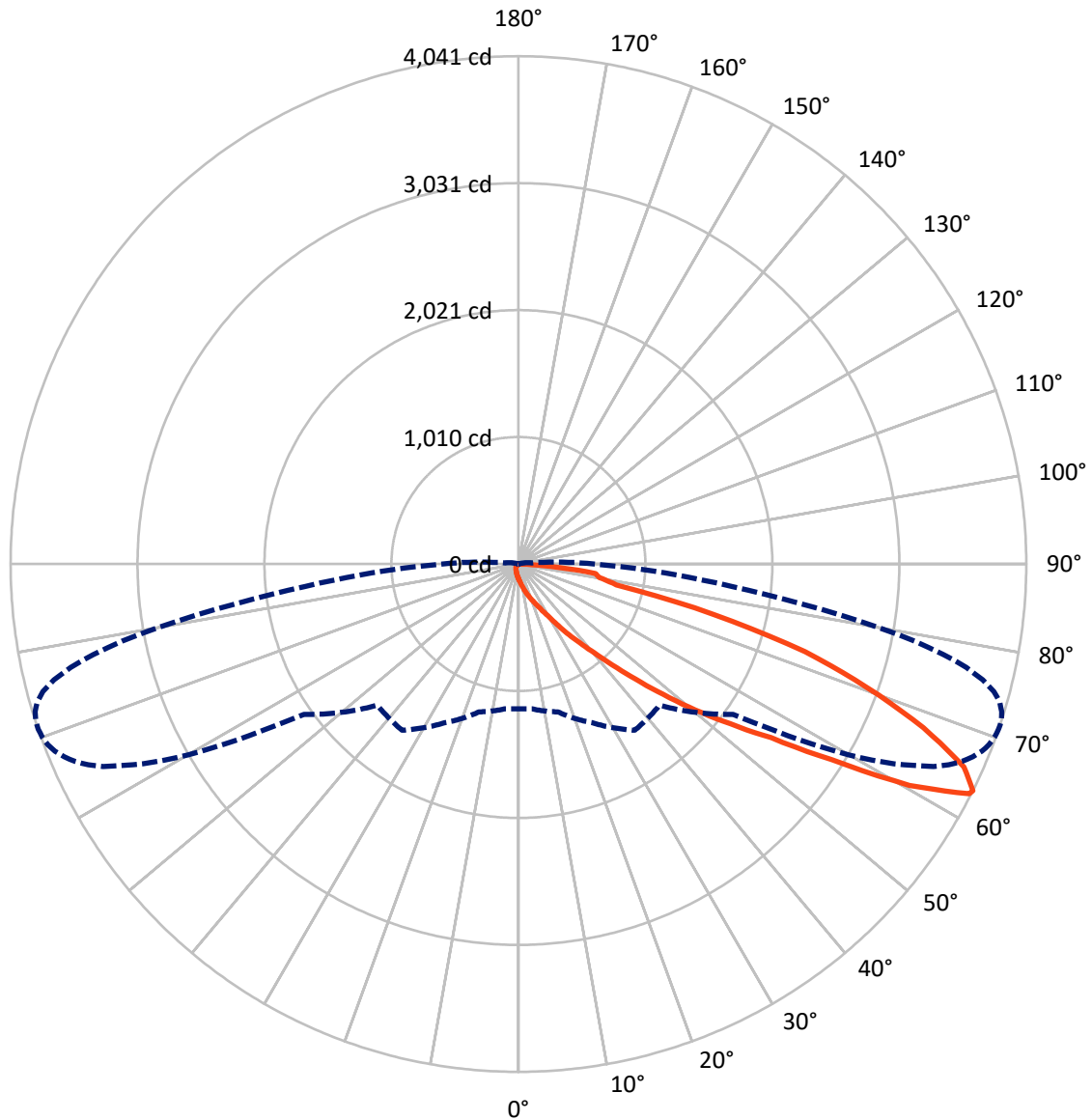
✕ Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 6.4 fc
 Type II - Short - Non-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 71-Deg Lateral - - - Horizontal Cone Through 63-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	64.3	0.0	64.3
	% Fixture	2.1	0.0	2.1
Street Side	Lumens	2963.1	0.0	2963.1
	% Fixture	97.9	0.0	97.9
Total	Lumens	3027.4	0.0	3027.4
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	12.8	0.4
10°-20°	49.8	1.6
20°-30°	101.1	3.3
30°-40°	247.0	8.2
40°-50°	552.4	18.2
50°-60°	776.8	25.7
60°-70°	913.4	30.2
70°-80°	329.8	10.9
80°-90°	44.1	1.5
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°-90°	3027.4	100.0
0°-180°	3027.4	100.0

Coefficient of Utilization



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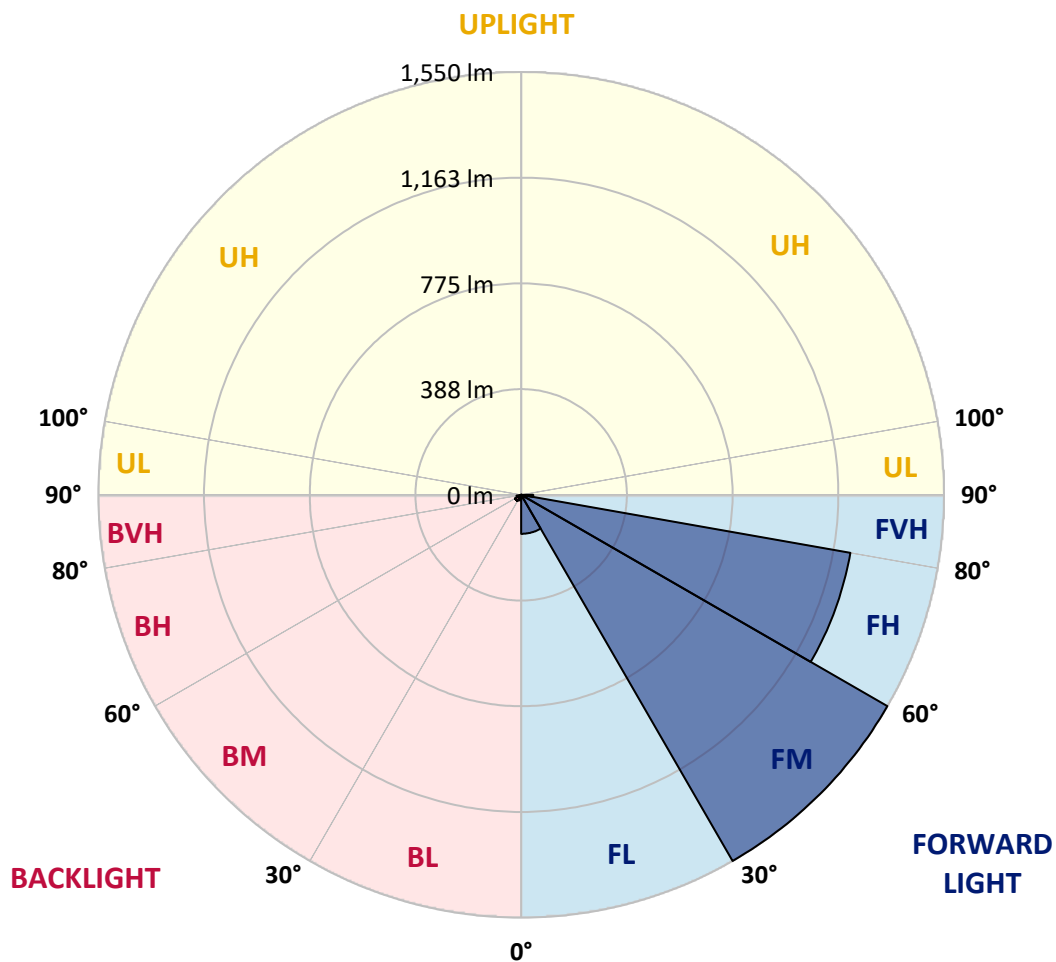
CATALOG NUMBER: TMU-F02-LED-E-U-SL2-HSS

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	143.1	4.7			
FM (30°-60°)	1550.3	51.2			
FH (60°-80°)	1225.7	40.5			G1/1800
FVH (80°-90°)	44.0	1.5			G1/100
BL (0°-30°)	20.7	0.7	B0/110		
BM (30°-60°)	25.9	0.9	B0/220		
BH (60°-80°)	17.6	0.6	B0/110		G0/110
BVH (80°-90°)	0.1	0.0			G0/10
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B0-U0-G1

Type II Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	56°	57°	58°	59°
0°	116.1	116.1	116.1	116.1	116.1	116.1	116.1	116.1	116.1	116.1	116.1
2.5°	151.9	153.5	152.4	149.7	146.4	142.0	138.1	138.1	137.6	135.9	136.5
5°	199.2	199.8	197.6	191.0	184.9	175.6	165.1	164.0	162.9	161.3	160.7
7.5°	245.5	247.7	245.5	238.3	226.2	211.9	195.4	193.7	190.4	190.4	188.2
10°	292.8	292.8	290.6	282.3	271.3	251.0	230.0	227.3	223.4	222.3	219.0
12.5°	326.4	326.4	325.3	320.9	312.0	293.9	268.6	265.8	260.9	259.2	255.4
15°	339.6	339.6	340.1	344.0	344.5	336.3	309.8	307.6	302.7	298.3	296.6
17.5°	347.8	347.3	347.3	352.8	362.7	368.2	351.1	348.9	343.4	341.2	335.7
20°	366.0	364.9	361.6	361.6	370.9	390.2	390.2	389.6	383.6	381.9	379.2
22.5°	392.9	391.8	381.9	373.7	378.1	402.3	424.9	423.8	421.6	419.4	417.7
25°	437.0	433.1	416.1	391.8	388.0	413.9	451.3	454.0	455.7	455.7	456.8
27.5°	503.6	498.6	468.3	423.2	406.2	432.6	480.5	486.0	490.9	492.0	497.0
30°	596.0	587.2	543.7	477.7	438.6	460.1	523.4	529.4	536.6	538.8	546.5
32.5°	747.9	743.0	701.1	602.1	518.4	514.0	583.4	591.1	600.4	604.3	613.6
35°	979.1	980.2	946.1	856.9	741.3	680.8	690.7	697.3	700.6	712.2	717.1
37.5°	1135.9	1138.7	1146.4	1111.2	1028.6	967.0	889.4	896.5	879.5	881.1	881.7
40°	1221.8	1230.6	1275.7	1309.8	1303.2	1267.5	1205.3	1209.1	1177.2	1170.0	1135.4
42.5°	1279.0	1290.6	1362.7	1468.3	1522.3	1554.7	1540.4	1538.8	1514.0	1504.7	1475.5
45°	1314.8	1325.2	1416.1	1571.8	1696.2	1790.8	1829.9	1834.3	1813.4	1804.0	1779.8
47.5°	1313.1	1325.2	1422.7	1610.3	1793.6	1944.9	2055.0	2060.5	2073.2	2064.9	2066.6
50°	1240.5	1252.0	1350.0	1544.8	1765.0	2015.4	2216.8	2234.4	2254.8	2268.5	2275.1
52.5°	1152.4	1160.7	1247.6	1432.6	1642.8	1986.2	2312.6	2342.8	2373.1	2399.0	2417.1
55°	1120.0	1129.3	1197.6	1351.1	1544.8	1864.0	2357.1	2401.7	2444.7	2487.0	2521.7
57.5°	1137.0	1145.8	1194.8	1312.6	1486.5	1735.3	2369.8	2439.2	2509.6	2578.4	2646.6
60°	1199.8	1209.1	1250.9	1348.4	1471.1	1661.0	2320.3	2435.3	2552.5	2672.5	2785.3
62.5°	1175.0	1178.8	1240.5	1411.1	1581.2	1597.7	2140.3	2301.0	2479.9	2664.8	2847.0
63°	1151.3	1155.7	1218.5	1394.0	1614.7	1588.3	2084.7	2254.2	2443.0	2642.2	2840.4
65°	1044.0	1044.6	1092.4	1231.1	1577.3	1604.8	1837.1	1998.9	2215.7	2454.6	2705.0
67.5°	779.3	775.4	821.7	927.3	1238.3	1605.4	1576.8	1667.6	1818.4	2030.2	2254.8
70°	276.3	270.2	345.1	491.5	771.6	1313.1	1355.0	1361.0	1402.8	1517.3	1658.2
72.5°	89.7	91.4	110.1	180.0	355.5	883.9	1226.7	1208.0	1197.0	1196.5	1215.2
75°	35.8	36.3	44.0	79.8	159.6	426.0	1074.3	1084.7	1088.6	1094.1	1100.1
77.5°	17.1	18.7	24.8	44.6	79.3	210.8	768.8	857.4	908.1	947.2	970.8
80°	6.1	7.2	13.8	27.5	36.9	96.9	405.1	488.7	563.0	658.8	741.3
82.5°	0.0	0.0	2.8	19.3	20.4	39.1	166.2	194.8	222.9	288.9	370.9
85°	0.0	0.0	0.0	5.5	6.1	6.6	56.1	67.7	75.9	88.6	102.4
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.6	1.7	3.3	8.3	12.7
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):

	60°	61°	62°	64°	65°	66°	67°	68°	69°	70°	71°
0°	116.1	116.1	116.1	116.1	116.1	116.1	116.1	116.1	116.1	116.1	116.1
2.5°	135.4	134.8	134.8	133.7	133.2	132.1	131.5	129.9	129.3	129.3	129.3
5°	160.2	158.0	156.8	154.1	152.4	151.9	149.1	148.0	146.4	146.9	144.2
7.5°	187.7	183.8	182.2	178.3	177.2	173.4	172.3	169.5	167.9	164.6	163.5
10°	217.9	213.0	210.2	204.2	202.5	199.8	196.5	193.2	190.4	187.1	185.5
12.5°	252.6	248.2	246.0	237.8	233.9	230.0	225.6	221.2	216.8	214.1	210.2
15°	293.3	286.2	284.0	276.3	269.7	264.7	258.7	253.2	249.9	244.4	240.5
17.5°	333.5	326.4	324.7	313.1	306.0	302.7	296.1	288.9	282.9	277.4	271.3
20°	373.7	368.7	364.3	353.3	345.6	340.1	331.3	324.2	319.2	311.5	303.8
22.5°	413.9	408.9	405.6	394.1	386.9	379.2	371.5	363.8	356.6	347.3	338.5
25°	455.1	451.8	450.2	439.7	433.1	426.0	418.3	409.5	400.7	390.2	380.8
27.5°	498.1	499.2	495.9	493.7	486.5	481.6	469.4	463.4	456.8	444.1	432.6
30°	552.6	555.9	554.8	556.4	552.0	548.7	539.3	531.6	523.9	511.8	498.6
32.5°	621.3	625.7	627.9	634.0	631.8	630.7	627.9	616.9	611.4	590.5	585.0
35°	727.6	725.4	734.7	739.7	737.5	736.4	733.1	727.0	720.4	705.5	691.8
37.5°	865.7	867.9	871.2	861.3	854.7	854.1	844.2	838.2	828.8	812.3	795.8
40°	1118.9	1105.1	1089.7	1047.9	1029.7	1019.2	990.1	981.8	965.9	943.3	926.2
42.5°	1448.0	1434.2	1388.0	1318.1	1280.7	1228.9	1205.3	1176.1	1153.5	1116.7	1096.8
45°	1774.9	1735.3	1729.7	1648.3	1602.1	1533.8	1491.4	1442.5	1391.3	1342.9	1307.6
47.5°	2050.6	2041.8	2014.8	1965.3	1922.4	1865.1	1810.7	1735.3	1682.4	1613.6	1550.3
50°	2271.3	2270.7	2260.8	2232.2	2196.4	2150.2	2102.3	2038.5	1978.5	1894.3	1826.6
52.5°	2436.4	2445.2	2448.5	2439.7	2425.9	2385.2	2361.0	2307.6	2257.0	2185.4	2112.2
55°	2557.5	2589.9	2606.5	2625.2	2621.3	2607.0	2605.9	2571.2	2548.1	2491.4	2439.7
57.5°	2707.2	2760.6	2811.7	2902.5	2905.8	2937.8	2954.3	2970.8	2975.2	2952.6	2935.6
60°	2897.6	3006.6	3103.4	3293.3	3342.8	3421.0	3471.6	3526.6	3573.4	3577.3	3576.2
62.5°	3031.9	3199.7	3356.0	3637.8	3734.1	3824.4	3892.1	3945.5	3977.9	4011.0	4026.4
63°	3035.7	3219.5	3385.8	3676.3	3777.6	3863.5	3927.8	3977.4	4011.5	4031.3	4041.2
65°	2942.7	3165.6	3363.7	3653.2	3748.4	3834.8	3868.4	3900.9	3917.4	3925.1	3895.9
67.5°	2494.2	2712.1	2943.3	3266.9	3348.3	3451.8	3479.3	3495.8	3503.5	3501.9	3477.1
70°	1865.1	2047.9	2304.9	2674.7	2782.6	2883.8	2946.6	2973.5	2982.3	2979.6	2942.7
72.5°	1302.1	1409.4	1621.3	2033.0	2179.9	2309.8	2387.4	2427.6	2435.8	2419.3	2385.2
75°	1093.5	1099.0	1146.9	1372.0	1509.6	1648.3	1735.8	1761.1	1744.6	1694.5	1607.6
77.5°	976.3	988.4	988.4	1022.0	1049.0	1087.5	1095.7	1034.1	962.6	870.1	795.3
80°	818.9	861.3	891.0	915.8	918.5	910.8	890.5	855.8	800.8	730.3	652.2
82.5°	497.5	581.2	615.3	743.0	805.7	848.1	844.8	798.6	756.7	683.5	616.9
85°	125.5	135.4	146.9	191.0	214.1	261.4	291.1	304.9	309.8	284.5	257.6
87.5°	12.1	8.3	13.8	10.5	14.9	11.0	14.9	13.8	17.1	18.2	19.8
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):

	72°	73°	74°	75°	76°	77°	78°	79°	80°	81°	82°
0°	116.1	116.1	116.1	116.1	116.1	116.1	116.1	116.1	116.1	116.1	116.1
2.5°	128.2	127.7	127.1	126.6	126.0	125.5	124.4	124.4	123.3	122.7	122.2
5°	142.5	141.4	140.9	139.8	138.1	137.0	135.4	133.2	131.5	131.0	129.9
7.5°	160.7	158.0	156.8	155.2	153.0	149.7	147.5	145.8	143.1	141.4	138.1
10°	181.1	178.3	175.0	171.7	168.4	164.6	161.8	159.6	155.2	153.0	149.1
12.5°	206.9	202.0	198.1	193.7	189.3	184.9	181.6	175.0	171.2	166.2	162.9
15°	233.3	228.9	224.5	219.0	212.4	205.3	202.0	195.9	191.0	183.3	178.9
17.5°	265.3	257.0	250.4	243.8	237.8	231.1	224.5	215.2	208.0	201.4	192.6
20°	296.6	286.7	279.6	270.8	262.0	251.5	243.8	237.2	227.3	218.5	209.1
22.5°	330.2	320.3	308.7	299.9	287.8	279.6	269.1	258.1	248.2	236.7	225.1
25°	370.9	360.5	347.3	335.7	322.0	310.4	297.7	285.1	273.0	259.8	244.9
27.5°	421.0	410.0	395.7	381.9	363.8	349.5	337.4	320.3	304.9	288.4	271.3
30°	484.3	472.2	454.6	434.8	416.6	400.7	383.6	361.0	344.0	324.2	302.1
32.5°	566.9	552.6	528.9	510.2	487.6	466.7	443.0	420.5	396.3	370.4	345.1
35°	670.9	657.7	630.2	602.6	577.9	553.1	523.4	497.5	463.4	432.0	399.6
37.5°	778.7	755.1	729.8	700.0	669.2	639.5	603.2	567.4	528.3	494.2	453.5
40°	902.0	873.4	852.5	820.6	777.1	734.7	701.1	656.6	607.6	561.9	514.0
42.5°	1071.0	1039.1	1001.6	953.2	921.8	872.3	828.8	776.0	711.6	660.4	602.6
45°	1266.4	1222.9	1186.6	1139.8	1101.8	1040.2	989.5	919.1	854.7	787.6	717.1
47.5°	1489.2	1435.3	1382.5	1336.2	1275.7	1215.2	1150.8	1075.9	993.4	919.6	836.0
50°	1745.2	1668.7	1595.5	1536.0	1452.9	1383.0	1313.1	1228.9	1137.6	1052.8	957.6
52.5°	2029.7	1941.1	1844.2	1752.9	1656.6	1566.8	1482.6	1385.8	1284.0	1180.5	1074.3
55°	2373.1	2306.5	2192.6	2076.5	1947.7	1827.7	1719.3	1599.3	1475.5	1339.6	1227.8
57.5°	2910.8	2878.3	2783.1	2667.0	2499.1	2353.3	2169.5	2022.5	1843.1	1656.0	1511.8
60°	3639.5	3599.3	3545.9	3451.8	3318.6	3120.5	2918.0	2689.6	2416.6	2157.4	1911.4
62.5°	4028.0	4013.7	3970.2	3905.3	3780.9	3624.6	3420.4	3169.5	2861.3	2546.5	2232.8
63°	4039.6	4021.4	3984.0	3917.9	3808.4	3657.1	3456.7	3212.9	2911.4	2590.5	2270.2
65°	3883.3	3876.1	3838.1	3766.0	3691.2	3575.6	3420.4	3210.7	2957.6	2654.3	2335.7
67.5°	3444.1	3422.6	3364.3	3342.3	3290.0	3209.6	3091.3	2947.1	2766.1	2527.8	2252.6
70°	2913.0	2881.1	2807.9	2768.8	2705.0	2654.3	2582.2	2479.3	2367.6	2201.4	1996.1
72.5°	2350.0	2284.0	2216.8	2115.0	2025.8	1935.6	1855.8	1783.1	1660.4	1593.3	1437.5
75°	1526.1	1406.1	1291.1	1137.0	998.3	875.6	756.2	695.6	569.6	518.4	445.2
77.5°	724.3	657.1	566.9	497.0	407.8	333.0	271.9	204.2	160.2	125.5	95.8
80°	584.5	527.8	473.3	410.0	342.9	273.5	209.7	156.8	111.2	77.0	54.5
82.5°	521.2	459.5	392.4	348.9	303.2	248.2	203.6	166.2	122.7	89.7	61.1
85°	202.5	170.6	131.5	107.3	83.7	68.8	62.2	42.9	33.6	26.4	20.4
87.5°	17.6	14.3	11.6	7.7	8.3	4.4	5.0	3.3	2.8	2.8	2.2
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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CATALOG NUMBER: TMU-F02-LED-E-U-SL2-HSS

CANDELA DISTRIBUTION (continued):

	83°	84°	85°	86°	87°	88°	89°	90°	95°	105°	115°
0°	116.1	116.1	116.1	116.1	116.1	116.1	116.1	116.1	116.1	116.1	116.1
2.5°	121.6	121.1	120.5	119.4	119.4	118.3	117.8	117.2	114.5	108.4	103.5
5°	127.7	126.6	125.5	123.8	122.7	121.1	120.0	118.3	112.3	100.7	90.8
7.5°	136.5	134.3	132.6	129.3	127.7	125.5	123.8	121.1	111.2	93.6	79.8
10°	146.9	143.1	140.3	136.5	133.2	130.4	127.7	123.8	110.1	85.9	69.9
12.5°	159.6	155.2	149.7	145.3	140.9	137.0	133.2	128.2	108.4	79.3	62.2
15°	172.3	165.7	161.8	155.7	149.7	144.2	138.7	134.3	109.0	72.1	55.6
17.5°	186.6	180.0	171.7	165.1	158.5	151.3	144.7	135.9	106.2	66.6	50.6
20°	200.3	191.0	183.3	175.0	165.7	156.8	148.6	140.9	104.0	61.1	46.2
22.5°	215.2	204.2	194.3	183.8	172.3	162.4	152.4	142.5	100.2	56.1	42.4
25°	233.3	220.7	206.4	193.7	181.6	169.5	156.8	144.7	96.3	51.7	39.6
27.5°	255.4	238.9	224.5	208.6	191.5	176.1	162.4	149.1	92.5	48.4	36.9
30°	283.4	264.2	243.8	223.4	205.3	187.7	168.4	151.9	88.6	45.1	34.1
32.5°	320.9	296.6	271.9	248.2	224.0	201.4	181.1	159.6	86.4	42.4	31.4
35°	370.4	339.0	308.7	279.0	249.9	222.3	195.9	171.7	86.4	39.1	28.1
37.5°	417.2	380.8	342.3	305.4	270.8	238.9	207.5	178.3	82.0	36.3	25.3
40°	467.8	424.3	379.2	335.7	293.9	254.3	218.5	184.9	78.1	33.0	22.6
42.5°	545.4	490.4	431.5	380.8	330.8	281.8	237.2	197.6	73.2	29.7	19.8
45°	647.2	577.3	508.0	446.3	382.5	322.5	269.7	220.7	72.1	27.0	17.1
47.5°	756.2	673.6	592.2	513.5	438.6	368.7	305.4	246.6	72.1	24.2	14.9
50°	864.6	761.1	674.2	582.8	498.6	416.1	340.7	273.5	72.6	22.0	12.1
52.5°	962.6	851.9	754.5	648.9	555.9	460.1	378.1	299.9	71.5	19.3	9.9
55°	1098.5	968.6	855.8	739.1	630.2	522.3	429.3	339.6	72.1	17.1	8.3
57.5°	1348.9	1196.5	1060.5	907.5	782.0	642.8	530.0	421.0	78.7	14.3	6.1
60°	1708.3	1510.2	1319.2	1132.6	973.0	807.4	661.0	532.7	92.5	11.6	4.4
62.5°	1949.9	1690.7	1462.8	1257.0	1071.5	898.2	738.6	592.7	101.8	9.4	2.8
63°	1974.7	1706.6	1477.7	1265.3	1075.9	902.6	741.9	597.1	102.4	8.8	2.8
65°	2021.4	1734.2	1485.9	1266.9	1071.5	896.5	739.7	596.6	103.5	7.2	2.2
67.5°	1968.1	1691.8	1438.1	1219.6	1033.0	860.7	712.2	574.6	102.9	5.0	1.7
70°	1760.0	1531.1	1308.2	1104.6	935.0	779.3	648.3	523.9	94.7	3.3	1.1
72.5°	1292.2	1136.5	963.7	816.7	704.4	585.0	499.2	393.5	73.2	2.2	0.6
75°	383.0	348.9	293.3	258.7	228.4	188.8	167.9	131.0	37.4	1.1	0.0
77.5°	76.5	69.3	62.2	56.7	53.4	45.7	43.5	35.8	15.4	0.6	0.0
80°	40.2	33.0	28.1	24.8	21.5	17.6	14.9	12.1	2.8	0.0	0.0
82.5°	38.5	25.9	18.7	15.4	13.2	10.5	8.3	6.1	1.7	0.0	0.0
85°	14.3	11.0	8.3	6.6	5.5	5.0	3.9	3.3	0.0	0.0	0.0
87.5°	2.2	1.7	1.7	1.1	1.1	0.6	0.6	0.6	0.0	0.0	0.0
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):

	125°	135°	145°	155°	165°	175°	180°
0°	116.1	116.1	116.1	116.1	116.1	116.1	116.1
2.5°	98.5	94.1	91.9	89.2	89.2	88.6	89.7
5°	82.0	75.9	71.5	68.2	68.8	67.1	67.7
7.5°	69.3	63.3	59.4	57.2	56.7	56.1	56.1
10°	60.0	54.5	51.2	49.5	49.0	49.0	49.0
12.5°	53.4	47.9	45.1	44.0	44.0	43.5	43.5
15°	47.9	43.5	40.7	39.6	39.6	39.1	39.6
17.5°	43.5	39.1	36.9	35.8	35.8	35.2	35.2
20°	39.6	35.8	33.6	31.9	31.9	31.4	31.9
22.5°	36.3	32.5	29.7	28.6	28.1	27.5	28.1
25°	33.0	29.2	26.4	24.8	24.2	24.2	23.7
27.5°	30.3	26.4	23.1	21.5	20.9	20.9	20.4
30°	27.5	23.1	19.8	18.2	17.6	17.6	17.6
32.5°	24.8	19.8	17.1	15.4	14.9	14.9	14.9
35°	22.0	17.1	14.3	12.7	12.1	12.1	12.1
37.5°	18.7	14.3	11.0	9.9	9.4	8.8	8.8
40°	16.0	11.0	8.3	7.2	6.1	6.1	6.1
42.5°	13.2	8.8	6.1	4.4	3.9	3.3	3.9
45°	11.0	6.6	3.9	2.2	1.7	1.7	1.7
47.5°	8.8	4.4	1.7	0.6	0.6	0.6	0.6
50°	6.6	2.8	0.6	0.0	0.0	0.6	0.6
52.5°	5.0	1.7	0.0	0.0	0.0	0.0	0.0
55°	2.8	0.6	0.0	0.0	0.0	0.0	0.0
57.5°	1.7	0.0	0.0	0.0	0.0	0.0	0.0
60°	1.1	0.0	0.0	0.0	0.0	0.0	0.0
62.5°	0.6	0.0	0.0	0.0	0.0	0.0	0.0
63°	0.6	0.0	0.0	0.0	0.0	0.0	0.0
65°	0.6	0.0	0.0	0.0	0.0	0.0	0.0
67.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0
70°	0.0	0.0	0.0	0.0	0.0	0.0	0.0
72.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0
75°	0.0	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)