

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: P154658

Luminaire Tested: **TMU-E02-LED-E-U-T2-8030**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P154658
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (P33671)
Test Lab: INNOVATION CENTER-P3
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: TMU-E02-LED-E-U-T2-8030
Description: TALON MEDIUM LED AREA LUMINAIRE
(2) LIGHTBARS WITH AccuLED OPTICS - TYPE 2 AREA
Light Source: (42) 3000K CCT, 80 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5171.7 lumens
Efficiency: N/A
Efficacy: 99.3 lumens/watt
Luminous Opening: Rectangular (W 0.33' x L: 1' x H: 0')
IES Classification: Type II - Short - Semi-Cutoff
BUG Rating: B2 - U0 - G2

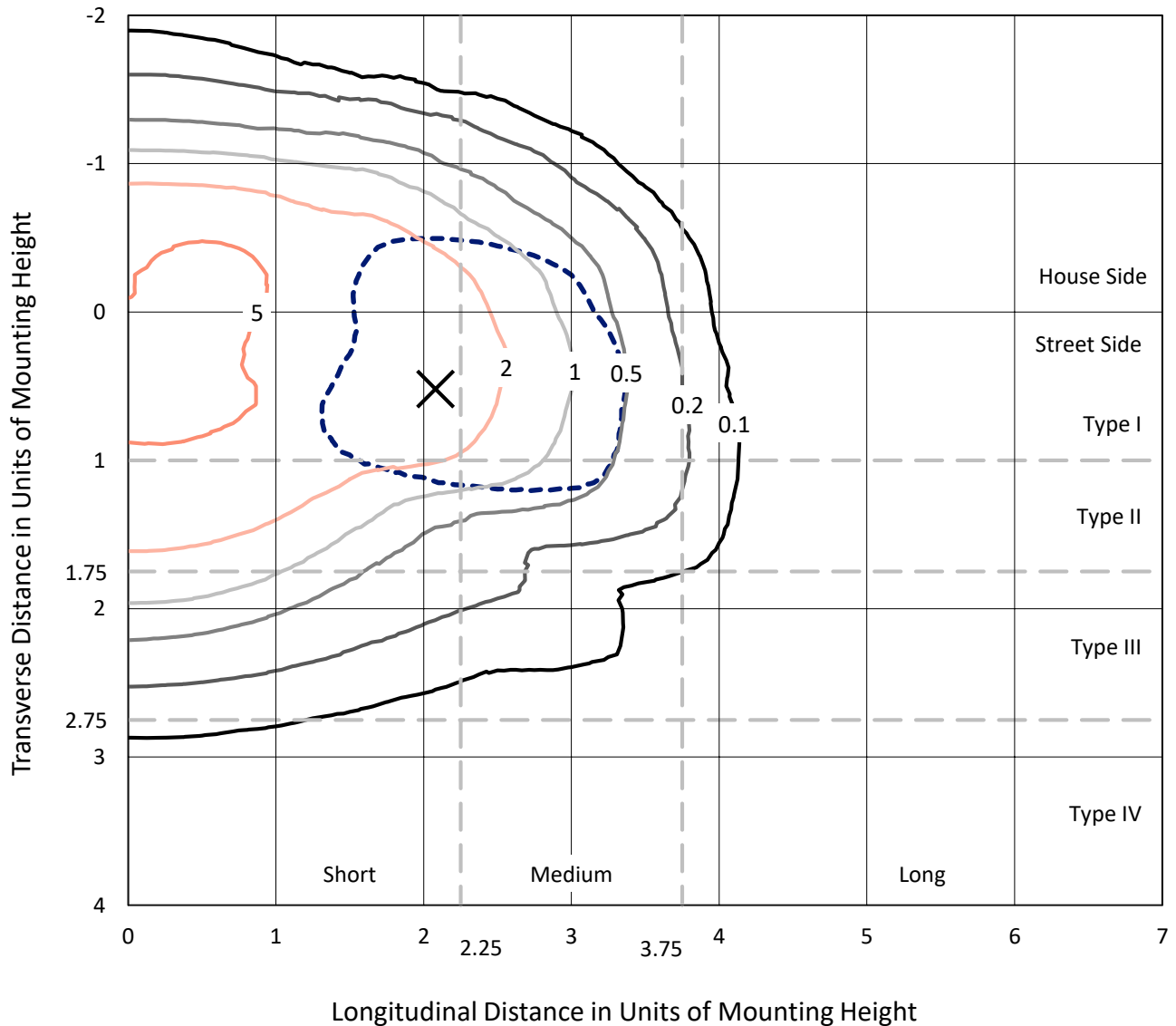
Input Watts (W): 52.1
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

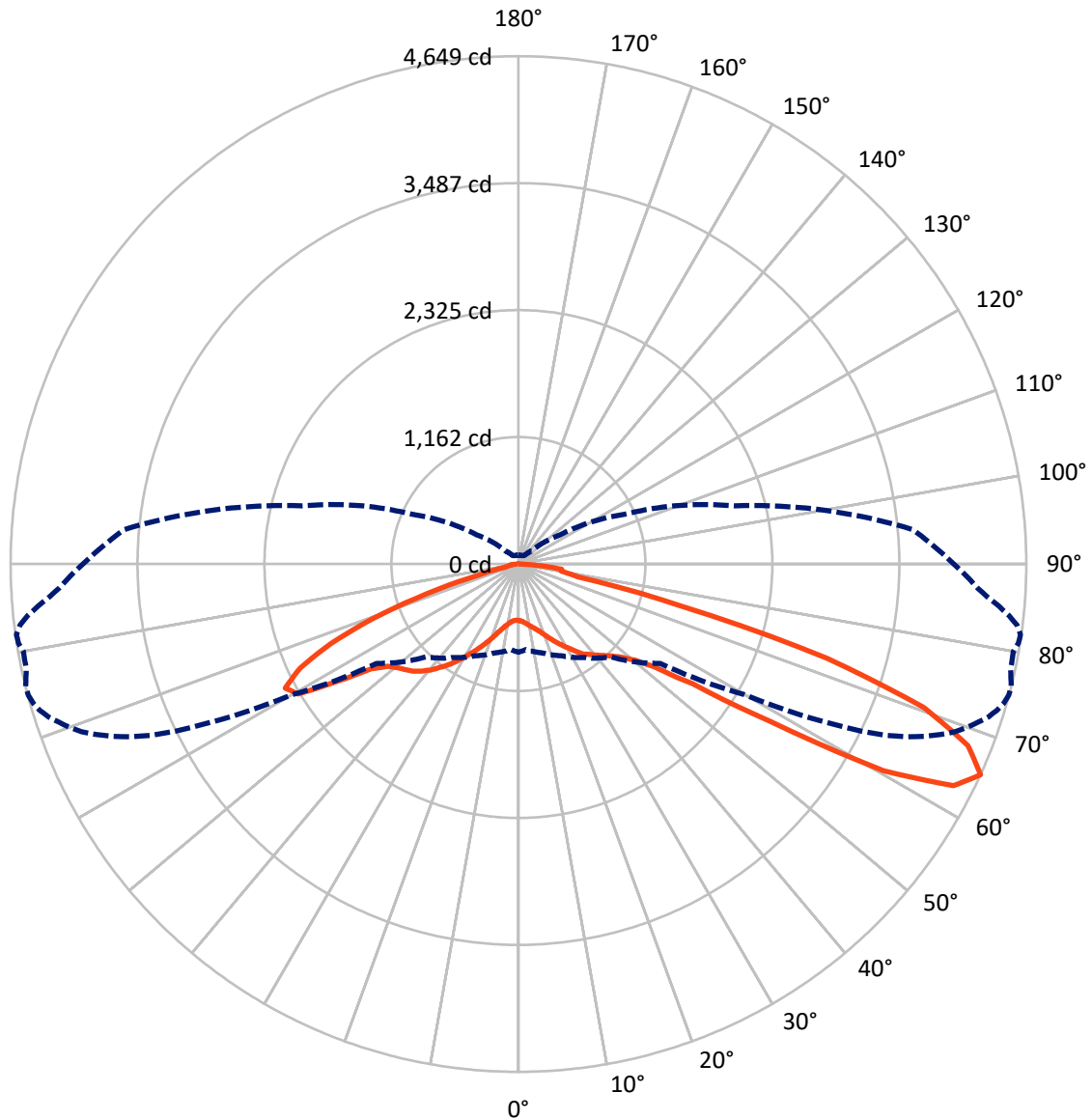
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 6.3 fc
 Type II - Short - Semi-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 76-Deg Lateral - - - Horizontal Cone Through 65-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1811.0	0.0	1811.0
	% Fixture	35.0	0.0	35.0
Street Side	Lumens	3360.7	0.0	3360.7
	% Fixture	65.0	0.0	65.0
Total	Lumens	5171.7	0.0	5171.7
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	51.8	1.0
10°-20°	177.9	3.4
20°-30°	349.4	6.8
30°-40°	580.6	11.2
40°-50°	853.1	16.5
50°-60°	1181.1	22.8
60°-70°	1409.7	27.3
70°-80°	498.5	9.6
80°-90°	69.7	1.3
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°	5171.7	100.0
0°-180°	5171.7	100.0



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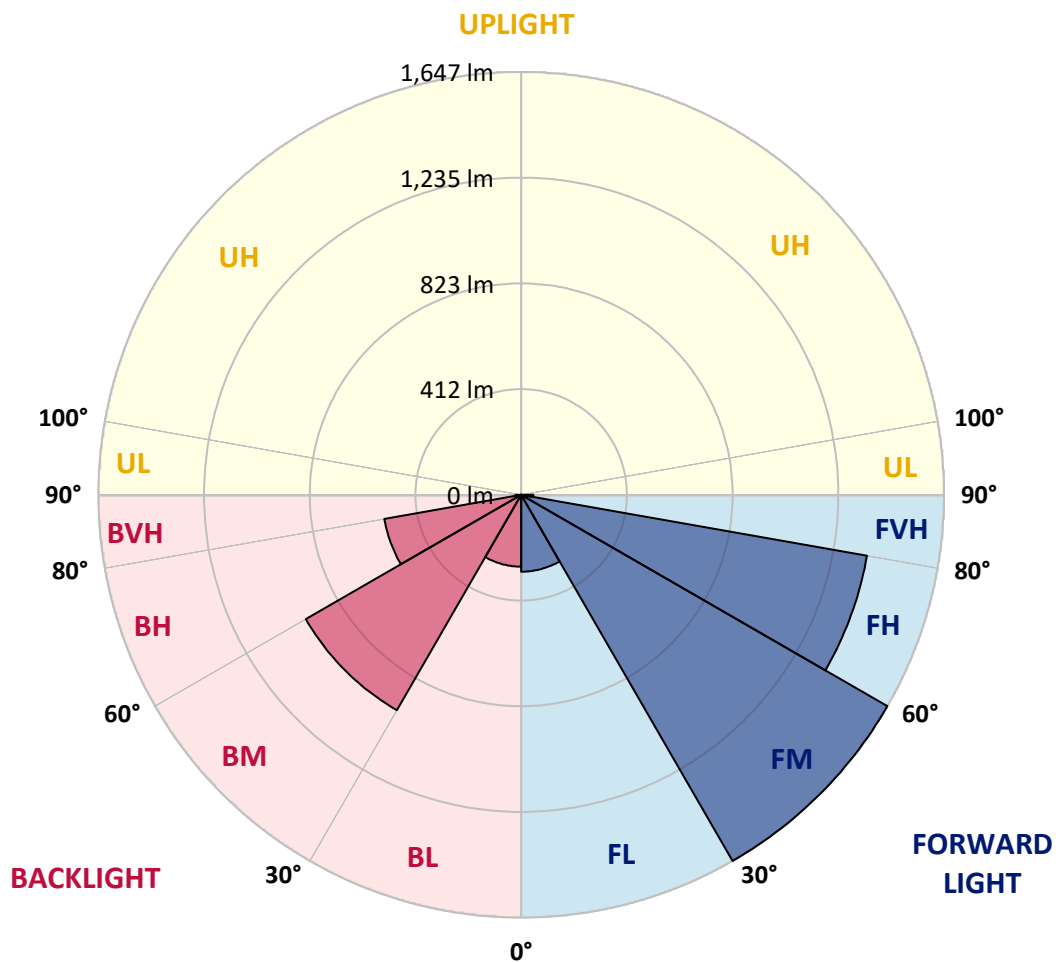
CATALOG NUMBER: TMU-E02-LED-E-U-T2-8030

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	299.2	5.8			
FM	(30°-60°)	1646.5	31.8			
FH	(60°-80°)	1367.3	26.4			G1/1800
FVH	(80°-90°)	47.6	0.9			G1/100
BL	(0°-30°)	279.8	5.4	B1/500		
BM	(30°-60°)	968.2	18.7	B1/1000		
BH	(60°-80°)	540.9	10.5	B2/1000		G2/1000
BVH	(80°-90°)	22.0	0.4			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B2-U0-G2

Type II Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	60°	61°	62°	64°
0°	517.1	517.1	517.1	517.1	517.1	517.1	517.1	517.1	517.1	517.1	517.1
2.5°	539.6	540.2	539.0	538.5	536.8	534.0	531.7	529.5	529.5	529.5	527.8
5°	563.2	564.3	562.1	560.4	555.3	552.5	548.6	545.8	544.7	544.1	542.4
7.5°	593.0	591.4	588.0	586.9	582.9	576.7	569.4	563.8	563.8	563.2	563.8
10°	622.9	618.4	616.7	615.0	608.8	600.9	592.5	586.3	585.7	585.2	583.5
12.5°	652.7	651.0	649.3	643.1	636.9	624.6	615.0	608.8	608.2	608.8	606.5
15°	692.1	688.1	686.4	675.8	662.3	648.7	636.9	631.3	629.6	630.2	628.5
17.5°	722.5	722.5	718.5	706.7	689.3	670.7	658.3	654.9	654.4	654.4	654.9
20°	746.7	746.1	742.1	732.6	711.8	693.2	687.0	685.9	685.3	685.3	687.0
22.5°	760.2	759.0	757.3	746.7	730.3	718.0	718.5	721.9	723.0	724.1	726.4
25°	766.9	765.2	764.7	757.3	745.5	743.8	754.0	763.0	765.2	767.5	770.3
27.5°	778.2	775.3	776.5	773.7	770.8	775.9	796.7	806.3	808.0	810.8	812.5
30°	809.1	808.0	812.5	813.6	815.9	823.2	842.3	851.3	855.2	855.2	863.1
32.5°	868.2	868.7	869.9	881.7	885.6	890.7	900.8	908.1	908.7	909.3	916.6
35°	947.5	950.9	960.5	970.6	980.2	979.6	973.4	977.3	974.5	977.9	978.5
37.5°	1047.7	1043.2	1057.2	1080.3	1094.9	1091.0	1063.4	1045.4	1050.5	1048.2	1046.5
40°	1124.8	1129.8	1156.8	1187.2	1198.5	1210.8	1174.8	1143.9	1139.4	1130.9	1125.9
42.5°	1231.1	1231.7	1253.6	1276.1	1308.7	1335.8	1312.7	1268.2	1254.7	1244.6	1222.7
45°	1329.6	1327.9	1345.9	1373.5	1412.3	1451.1	1459.5	1411.2	1406.1	1388.1	1359.4
47.5°	1395.4	1393.1	1405.5	1441.5	1504.6	1568.1	1603.0	1588.4	1578.8	1571.5	1526.5
50°	1439.8	1435.3	1449.4	1487.7	1558.0	1655.9	1747.1	1759.4	1755.5	1755.5	1726.8
52.5°	1473.0	1473.0	1483.2	1514.1	1585.6	1707.7	1870.8	1933.3	1938.4	1944.0	1942.3
55°	1454.5	1457.3	1482.6	1527.6	1603.0	1743.7	1973.3	2110.0	2138.1	2161.7	2188.7
57.5°	1390.9	1400.5	1434.2	1507.9	1607.5	1770.7	2086.9	2357.5	2436.9	2505.5	2612.4
60°	1298.1	1310.4	1359.4	1453.4	1574.3	1726.8	2126.9	2566.9	2692.9	2842.6	3121.6
62.5°	1138.8	1151.2	1199.0	1293.0	1396.5	1558.6	1961.4	2597.8	2799.2	3011.4	3433.4
65°	806.9	787.2	842.3	926.7	1045.4	1202.4	1585.0	2390.2	2680.0	2967.5	3488.5
67.5°	449.6	447.9	481.6	544.7	658.3	827.1	1092.1	1833.1	2099.8	2425.6	3065.4
70°	310.0	313.4	334.8	402.9	496.8	642.6	778.2	1151.2	1343.1	1564.2	2193.3
72.5°	217.7	225.1	236.9	277.4	373.6	541.3	795.0	688.1	783.8	934.6	1318.9
75°	127.7	132.8	141.2	160.9	212.7	361.8	823.2	604.9	604.9	640.3	797.9
77.5°	78.8	78.8	83.8	91.7	113.1	177.2	586.3	679.7	660.6	640.3	642.0
80°	40.5	43.3	50.6	54.6	63.0	81.0	263.3	634.1	695.4	736.5	707.8
82.5°	18.6	20.8	30.9	33.2	36.6	42.8	90.6	360.7	483.3	636.4	795.0
85°	9.6	9.6	16.3	20.3	21.9	19.7	33.2	145.7	220.6	336.5	526.7
87.5°	1.7	1.7	2.8	3.4	5.1	4.5	5.6	8.4	14.1	15.2	15.8
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):

	65°	66°	67°	68°	69°	70°	71°	72°	73°	74°	75°
0°	517.1	517.1	517.1	517.1	517.1	517.1	517.1	517.1	517.1	517.1	517.1
2.5°	527.2	527.8	527.2	526.7	525.5	525.5	525.5	525.0	525.0	525.0	524.4
5°	542.4	540.2	540.7	539.6	539.0	538.5	539.0	537.9	536.8	537.3	536.8
7.5°	561.5	560.4	558.2	558.2	557.6	556.5	556.5	554.8	554.2	553.1	552.5
10°	582.9	580.1	581.2	580.1	580.7	578.4	577.3	576.2	575.0	575.0	575.6
12.5°	604.9	604.3	602.6	601.5	601.5	599.8	600.4	599.8	598.1	597.5	595.9
15°	627.4	627.4	625.7	626.2	625.7	624.6	623.4	623.4	622.3	621.2	621.7
17.5°	653.8	653.8	653.8	653.8	654.4	652.7	653.2	652.1	651.0	653.2	653.2
20°	688.1	690.4	690.4	689.8	692.6	690.9	690.4	693.2	690.4	694.3	693.8
22.5°	727.5	729.8	729.8	732.0	732.6	734.3	735.4	734.3	736.5	738.8	738.8
25°	771.4	773.7	775.3	778.7	780.4	779.3	779.8	782.7	783.8	786.0	788.3
27.5°	817.5	818.1	820.4	824.3	827.1	828.2	828.8	833.3	833.9	835.0	837.2
30°	862.6	868.2	867.1	872.1	873.8	875.5	878.9	880.6	884.5	886.8	886.8
32.5°	915.4	914.3	918.8	922.8	925.6	928.4	931.2	933.5	935.7	936.8	942.5
35°	981.3	983.5	983.5	984.1	990.8	991.4	993.7	998.7	1000.4	1003.8	1006.0
37.5°	1046.5	1042.6	1042.0	1042.0	1039.8	1041.5	1042.0	1042.6	1044.9	1045.4	1047.7
40°	1119.7	1114.6	1110.1	1107.3	1102.8	1096.6	1095.5	1092.7	1094.4	1093.8	1094.4
42.5°	1219.8	1205.8	1195.1	1187.2	1178.2	1171.5	1166.4	1159.1	1154.0	1147.8	1146.7
45°	1347.6	1321.1	1303.1	1290.2	1277.2	1258.7	1248.0	1236.7	1226.6	1216.5	1208.0
47.5°	1515.2	1487.1	1458.4	1434.8	1414.5	1384.7	1354.3	1337.4	1317.8	1300.3	1287.9
50°	1712.7	1679.0	1665.5	1632.3	1607.0	1561.9	1524.2	1496.7	1457.3	1430.8	1407.8
52.5°	1914.7	1906.3	1899.0	1870.8	1841.0	1815.1	1781.9	1733.6	1693.6	1663.2	1616.0
55°	2189.9	2193.8	2191.0	2175.8	2165.1	2140.4	2126.9	2084.7	2066.7	2022.8	1973.3
57.5°	2652.9	2684.5	2724.4	2740.2	2761.5	2741.3	2764.9	2793.6	2722.2	2746.9	2702.5
60°	3244.3	3388.9	3475.0	3580.8	3650.0	3746.8	3764.2	3789.5	3782.2	3796.3	3825.0
62.5°	3605.5	3777.1	3942.0	4061.8	4190.1	4261.0	4346.6	4406.2	4468.1	4509.7	4497.9
65°	3711.9	3888.5	4038.2	4169.3	4284.1	4370.7	4450.1	4524.9	4581.7	4621.7	4645.3
67.5°	3321.4	3552.1	3709.6	3863.2	4011.2	4102.4	4168.8	4241.3	4324.6	4393.8	4407.3
70°	2499.3	2845.4	3068.8	3252.7	3426.6	3549.3	3642.1	3709.6	3774.3	3823.8	3877.9
72.5°	1563.1	1865.8	2121.2	2359.8	2544.4	2713.1	2791.4	2941.0	2921.3	2959.0	2999.5
75°	936.8	1084.2	1224.9	1393.1	1489.9	1630.6	1655.9	1680.7	1667.7	1625.5	1657.0
77.5°	651.0	675.2	674.1	664.5	654.4	629.6	597.5	580.1	568.3	551.4	558.2
80°	654.9	602.6	522.7	439.4	362.9	312.3	292.0	292.0	312.8	342.7	372.5
82.5°	782.7	727.0	648.2	542.4	429.9	350.0	296.5	275.1	279.1	309.5	347.7
85°	527.8	540.2	473.8	433.2	343.2	267.3	223.9	181.7	160.9	166.0	187.9
87.5°	19.1	23.1	8.4	11.3	7.9	6.8	6.8	7.3	5.1	6.2	5.6
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):

	76°	77°	78°	79°	80°	81°	82°	83°	84°	85°	86°
0°	517.1	517.1	517.1	517.1	517.1	517.1	517.1	517.1	517.1	517.1	517.1
2.5°	523.8	523.3	523.3	522.1	522.1	521.6	521.6	521.0	520.5	520.5	519.9
5°	536.2	535.7	534.5	534.0	532.8	532.8	532.3	531.2	531.2	530.0	529.5
7.5°	553.7	552.5	551.4	550.8	550.3	548.6	548.6	547.5	547.5	546.3	545.8
10°	574.5	573.4	572.2	572.8	571.1	570.5	569.4	569.4	567.7	567.2	567.2
12.5°	597.0	596.4	596.4	594.7	594.2	593.6	591.4	591.4	591.4	590.2	590.8
15°	621.2	621.7	620.1	621.7	621.2	619.5	619.5	619.5	617.2	620.1	617.8
17.5°	653.8	655.5	654.4	654.9	653.8	653.8	654.4	653.8	654.9	654.9	658.3
20°	694.3	694.9	697.7	696.6	696.6	696.0	697.1	697.7	699.9	698.8	701.1
22.5°	738.8	741.6	742.1	744.4	744.4	743.8	745.0	747.2	748.3	750.0	749.5
25°	789.4	791.1	793.4	790.5	795.0	795.0	796.2	799.0	799.5	799.5	803.5
27.5°	836.7	841.2	841.7	844.6	842.9	844.0	847.9	849.6	851.9	851.9	853.0
30°	890.1	891.8	892.9	896.3	895.8	896.3	896.9	899.7	899.7	902.5	905.3
32.5°	945.3	946.4	947.5	950.9	952.0	954.3	953.1	955.4	958.2	958.8	960.5
35°	1011.1	1012.2	1013.4	1018.4	1019.0	1022.9	1024.0	1022.9	1027.4	1024.6	1027.4
37.5°	1049.4	1054.4	1055.6	1058.9	1057.8	1060.6	1062.3	1064.6	1065.7	1067.9	1072.4
40°	1096.1	1097.8	1101.1	1102.8	1105.1	1105.6	1107.9	1109.6	1111.3	1116.3	1121.4
42.5°	1143.9	1146.1	1147.8	1150.1	1152.9	1155.1	1156.8	1161.9	1163.0	1166.4	1176.0
45°	1201.8	1200.7	1201.3	1201.8	1203.0	1205.8	1210.8	1215.9	1219.3	1227.2	1235.0
47.5°	1273.9	1266.5	1263.7	1259.2	1260.4	1266.5	1267.7	1276.1	1282.9	1290.2	1299.7
50°	1383.0	1363.3	1351.5	1339.7	1338.6	1341.9	1346.4	1355.4	1363.3	1372.9	1386.4
52.5°	1566.4	1528.7	1505.1	1472.5	1463.5	1461.8	1458.4	1463.5	1465.7	1478.7	1504.0
55°	1937.8	1868.0	1823.0	1772.4	1725.1	1711.1	1684.0	1689.7	1684.0	1691.9	1729.6
57.5°	2713.1	2657.4	2613.6	2548.9	2467.8	2381.7	2360.4	2272.0	2289.5	2340.1	2307.5
60°	3839.0	3818.8	3787.3	3756.3	3645.5	3583.0	3481.2	3469.9	3398.5	3399.0	3352.3
62.5°	4469.2	4495.1	4476.0	4467.0	4460.8	4441.1	4390.4	4329.7	4238.5	4172.7	4075.9
65°	4649.3	4627.3	4606.5	4603.7	4602.0	4634.1	4641.4	4598.6	4515.9	4413.5	4302.1
67.5°	4439.4	4427.0	4428.1	4404.5	4419.1	4474.8	4513.7	4501.8	4425.9	4302.1	4160.3
70°	3939.7	3915.6	3940.3	3971.3	3993.2	4025.3	4064.1	4073.7	4004.5	3877.3	3732.7
72.5°	2950.0	2954.0	2977.6	2986.0	3074.4	3065.4	3100.3	2986.6	2936.5	2815.6	2741.3
75°	1552.4	1527.1	1592.9	1453.4	1396.0	1435.9	1323.9	1216.5	1239.0	1257.5	1123.6
77.5°	548.6	513.1	452.9	428.7	356.7	302.1	247.0	222.8	209.9	203.1	194.7
80°	393.9	405.1	392.7	363.5	308.9	247.6	195.2	154.2	132.2	120.4	112.5
82.5°	398.4	442.8	462.5	454.1	404.6	306.1	202.0	128.8	95.7	79.9	74.3
85°	213.8	234.1	225.1	189.6	170.5	101.8	69.8	46.7	39.4	36.0	33.2
87.5°	8.4	6.8	5.6	5.6	6.2	6.8	5.6	6.2	5.6	5.6	5.6
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-E02-LED-E-U-T2-8030

CANDELA DISTRIBUTION (continued):

	87°	88°	89°	90°	95°	105°	115°	125°	135°	145°	155°
0°	517.1	517.1	517.1	517.1	517.1	517.1	517.1	517.1	517.1	517.1	517.1
2.5°	518.8	518.8	518.8	518.2	517.1	514.3	511.5	509.2	507.5	505.8	503.6
5°	528.9	527.8	527.8	527.8	523.3	518.8	514.8	510.9	507.5	504.7	502.5
7.5°	545.8	545.2	543.0	542.4	539.0	531.7	527.2	520.5	516.5	512.6	511.5
10°	566.0	565.5	564.9	564.3	559.8	552.5	546.9	540.7	535.1	529.5	523.8
12.5°	589.7	589.1	588.5	586.9	585.2	581.2	575.0	568.3	561.5	549.7	543.5
15°	618.9	620.1	618.9	618.4	617.2	617.8	613.9	604.3	593.6	578.4	565.5
17.5°	657.8	656.6	656.1	658.3	657.8	660.6	659.4	647.1	630.7	606.5	584.0
20°	700.5	700.5	702.8	704.5	709.5	716.8	713.5	698.3	668.4	634.7	605.4
22.5°	751.7	752.8	755.1	754.0	761.8	773.7	774.8	753.4	714.6	667.9	626.8
25°	805.2	806.3	804.0	807.4	820.4	837.2	840.6	810.2	759.0	698.3	644.8
27.5°	855.8	856.9	856.9	861.4	873.8	902.5	905.9	872.1	804.0	724.7	657.8
30°	905.3	909.8	910.9	912.1	930.6	970.6	977.9	929.0	843.4	744.4	666.8
32.5°	967.8	969.5	971.7	974.5	995.9	1044.9	1044.9	977.9	868.7	756.8	668.4
35°	1034.7	1035.3	1040.4	1040.9	1071.3	1120.3	1110.7	1018.4	886.8	754.0	656.1
37.5°	1075.2	1077.5	1082.6	1089.3	1121.4	1190.6	1168.6	1053.3	890.1	735.4	627.9
40°	1125.3	1129.8	1134.9	1141.6	1189.5	1262.0	1217.6	1075.2	876.1	698.8	585.7
42.5°	1179.3	1185.5	1193.4	1205.8	1262.6	1325.1	1254.7	1078.6	844.0	657.8	535.7
45°	1240.1	1251.4	1260.4	1275.0	1339.1	1379.6	1277.2	1058.9	803.5	603.7	482.2
47.5°	1310.4	1319.4	1335.2	1350.9	1415.1	1416.8	1279.5	1020.7	748.3	549.7	425.4
50°	1397.1	1402.7	1426.3	1435.9	1496.1	1455.6	1263.2	968.9	690.4	489.0	362.4
52.5°	1512.4	1520.3	1550.7	1565.3	1608.1	1508.5	1240.1	912.6	624.0	420.9	297.6
55°	1740.3	1774.6	1796.0	1821.3	1848.9	1628.3	1230.0	852.4	549.2	342.1	235.8
57.5°	2380.1	2368.8	2416.1	2473.5	2472.9	1902.4	1290.7	800.7	460.8	261.6	181.2
60°	3333.2	3343.9	3319.7	3354.0	3244.9	2242.2	1374.0	746.1	361.2	194.7	138.4
62.5°	4041.6	3979.7	3945.4	3904.9	3664.6	2279.3	1313.2	634.1	262.8	136.7	106.3
65°	4209.3	4136.7	4063.0	3985.9	3623.5	2054.8	1077.5	465.3	169.9	94.0	84.4
67.5°	4043.8	3927.4	3833.4	3754.1	3320.3	1703.2	787.7	285.8	97.3	76.0	72.0
70°	3615.1	3486.2	3334.3	3245.4	2795.9	1255.3	504.7	154.2	74.8	67.5	65.8
72.5°	2646.2	2540.4	2374.4	2272.6	2007.6	763.0	281.9	86.6	69.8	64.7	62.5
75°	1030.8	975.7	906.4	912.1	814.2	337.6	127.7	74.8	68.1	63.6	61.3
77.5°	177.2	172.7	159.8	159.8	181.7	123.2	85.0	75.4	67.5	62.5	58.5
80°	106.3	104.1	99.0	97.9	94.5	86.6	81.6	76.5	66.4	59.1	54.0
82.5°	69.8	67.0	65.3	64.7	70.3	76.0	76.5	76.0	63.0	51.2	43.9
85°	29.8	29.8	29.8	30.4	40.5	61.3	63.0	67.5	51.8	39.9	31.5
87.5°	5.1	6.2	6.2	6.8	7.3	13.5	16.9	21.9	17.4	16.9	15.2
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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CANDELA DISTRIBUTION (continued):

	165°	175°	180°
0°	517.1	517.1	517.1
2.5°	503.0	501.9	501.9
5°	501.3	500.2	500.8
7.5°	508.1	505.8	506.4
10°	520.5	518.2	517.1
12.5°	536.2	533.4	533.4
15°	552.5	545.8	545.2
17.5°	566.0	557.6	556.5
20°	581.2	570.0	568.3
22.5°	595.3	580.1	577.9
25°	605.4	586.9	584.0
27.5°	609.9	588.0	585.7
30°	613.3	588.5	585.2
32.5°	609.9	583.5	580.7
35°	591.4	562.7	561.0
37.5°	559.3	527.2	525.0
40°	517.1	483.3	477.7
42.5°	463.1	431.6	425.4
45°	410.7	374.7	371.9
47.5°	354.5	320.2	321.8
50°	295.4	264.5	263.9
52.5°	239.1	212.1	210.4
55°	188.5	169.4	167.7
57.5°	149.1	139.0	137.3
60°	121.5	116.5	114.8
62.5°	97.9	96.2	95.7
65°	81.6	81.6	81.6
67.5°	70.9	71.5	71.5
70°	65.3	65.8	65.3
72.5°	63.0	64.7	64.7
75°	61.3	62.5	60.2
77.5°	60.2	60.8	56.8
80°	59.6	59.1	51.8
82.5°	51.8	50.1	43.9
85°	47.3	36.0	30.4
87.5°	24.2	16.9	12.9
90°	0.0	0.0	0.0

(END OF REPORT)