

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: P157069

Luminaire Tested: **UTLD-E02-LED-E-U-SL3-7030**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P157069
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (P33669)
Test Lab: INNOVATION CENTER-P3
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: UTLD-E02-LED-E-U-SL3-7030
Description: TRADITIONAIRE LED DOWNLIGHT LUMINAIRE
(2) LIGHTBARS WITH AccuLED OPTICS - TYPE 3 W/ SPILL LIGHT CONTROL
Light Source: (42) 3000K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4802 lumens
Efficiency: N/A
Efficacy: 92.2 lumens/watt
Luminous Opening: Rectangular (W 0.33' x L: 1' x H: 0')
IES Classification: Type III - Short - Semi-Cutoff
BUG Rating: B1 - 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

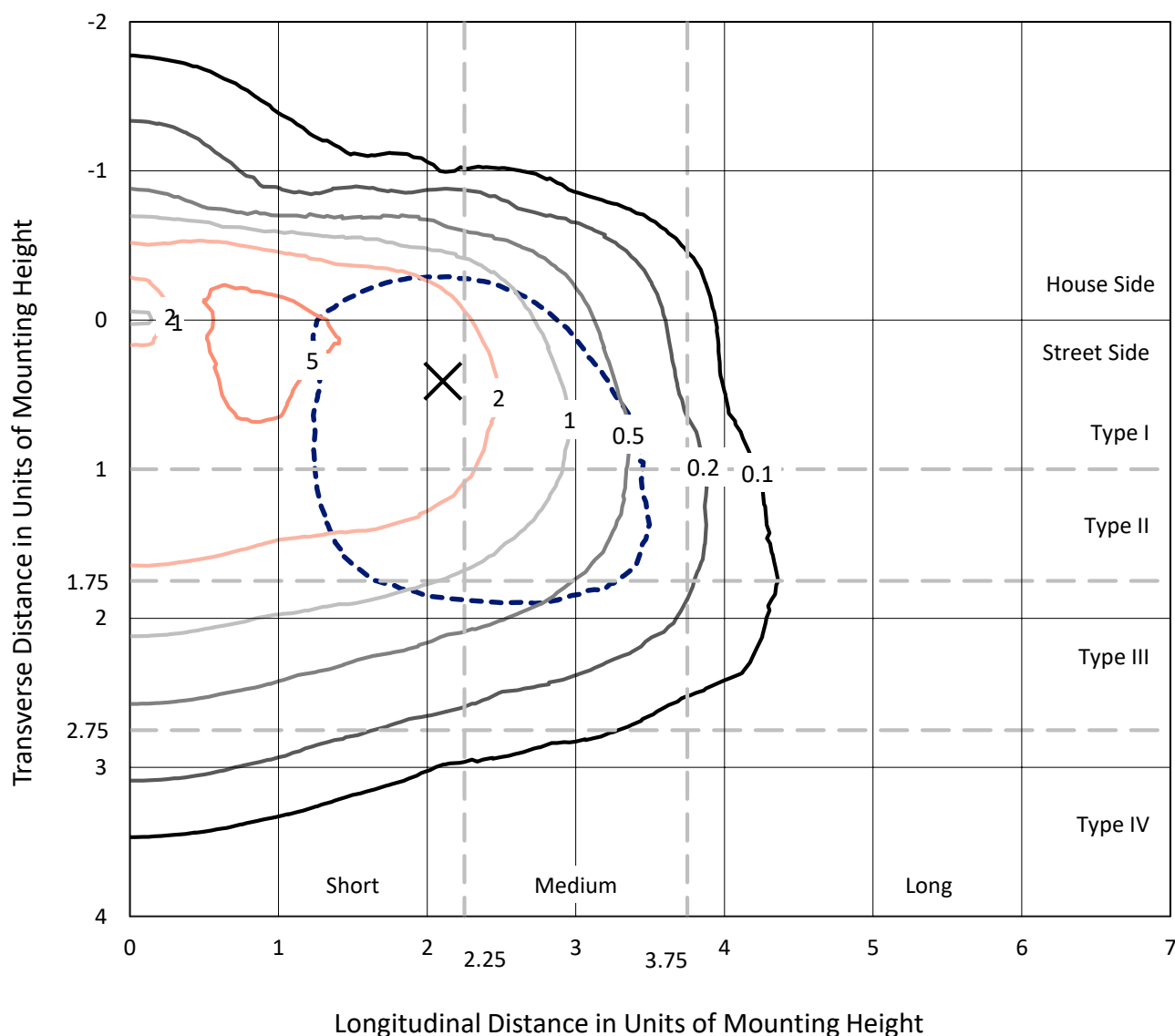


REPORT NUMBER: P157069

CATALOG NUMBER: UTLD-E02-LED-E-U-SL3-7030

Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 --- 1/2 Max cd

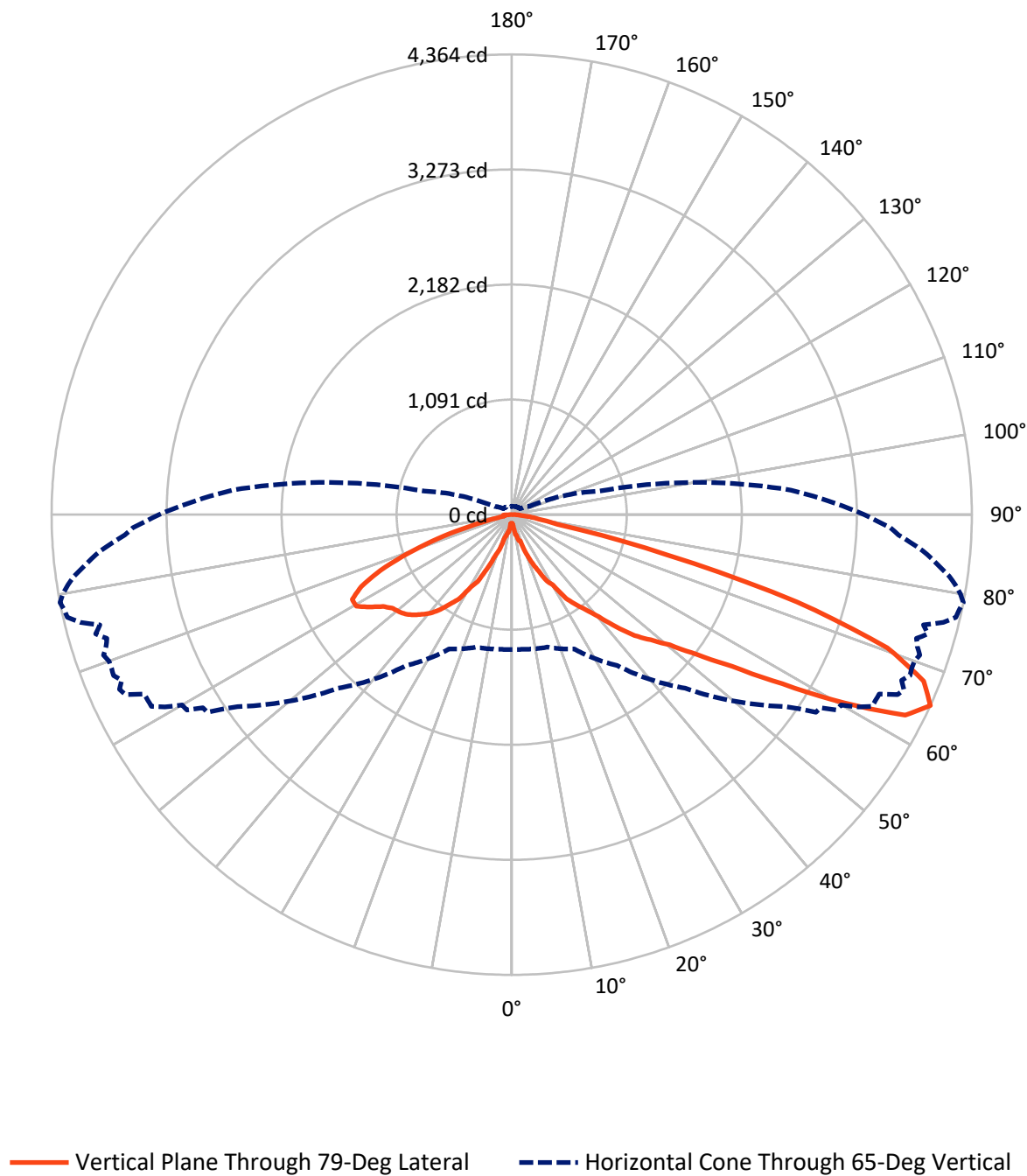


Based on 10 foot mounting height. Maximum calculated value = 6 fc
 Type III - Short - Semi-Cutoff

REPORT NUMBER: P157069

CATALOG NUMBER: UTLD-E02-LED-E-U-SL3-7030

Luminous Intensity Polar Plot



REPORT NUMBER: P157069

CATALOG NUMBER: UTLD-E02-LED-E-U-SL3-7030

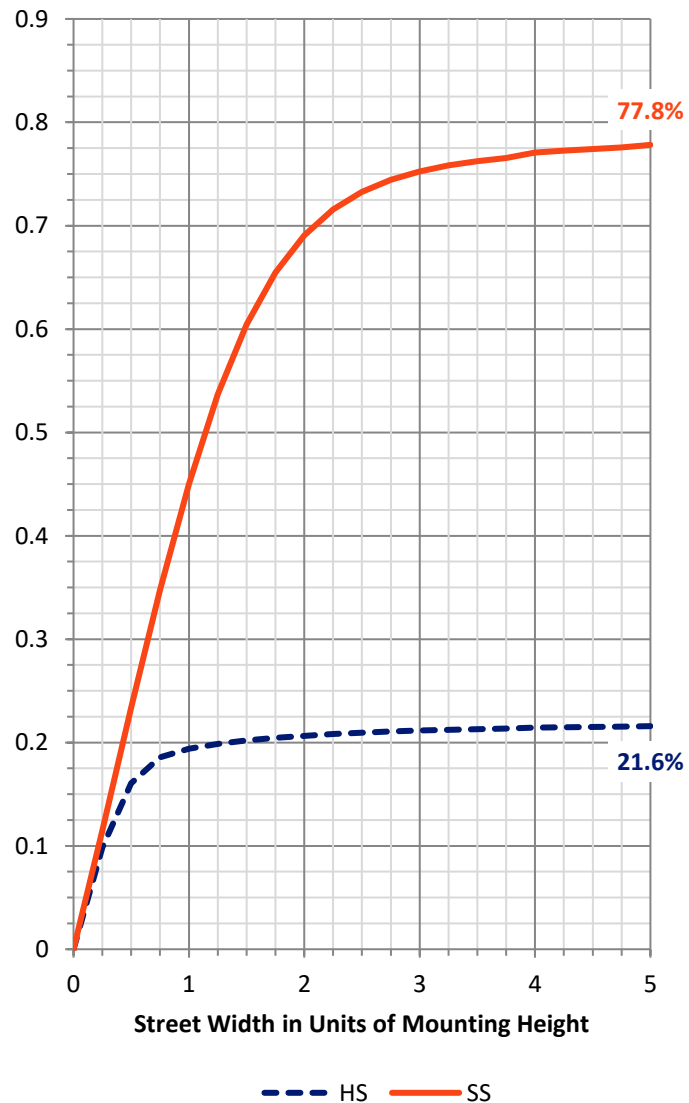
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1050.5	0.0	1050.5
	% Fixture	21.9	0.0	21.9
Street Side	Lumens	3751.4	0.0	3751.4
	% Fixture	78.1	0.0	78.1
Total	Lumens	4802.0	0.0	4802.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	11.5	0.2
10°-20°	73.6	1.5
20°-30°	226.7	4.7
30°-40°	436.5	9.1
40°-50°	721.4	15.0
50°-60°	1085.0	22.6
60°-70°	1453.3	30.3
70°-80°	683.1	14.2
80°-90°	110.9	2.3
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°	4802.0	100.0
0°-180°	4802.0	100.0

Coefficient of Utilization



REPORT NUMBER: P157069

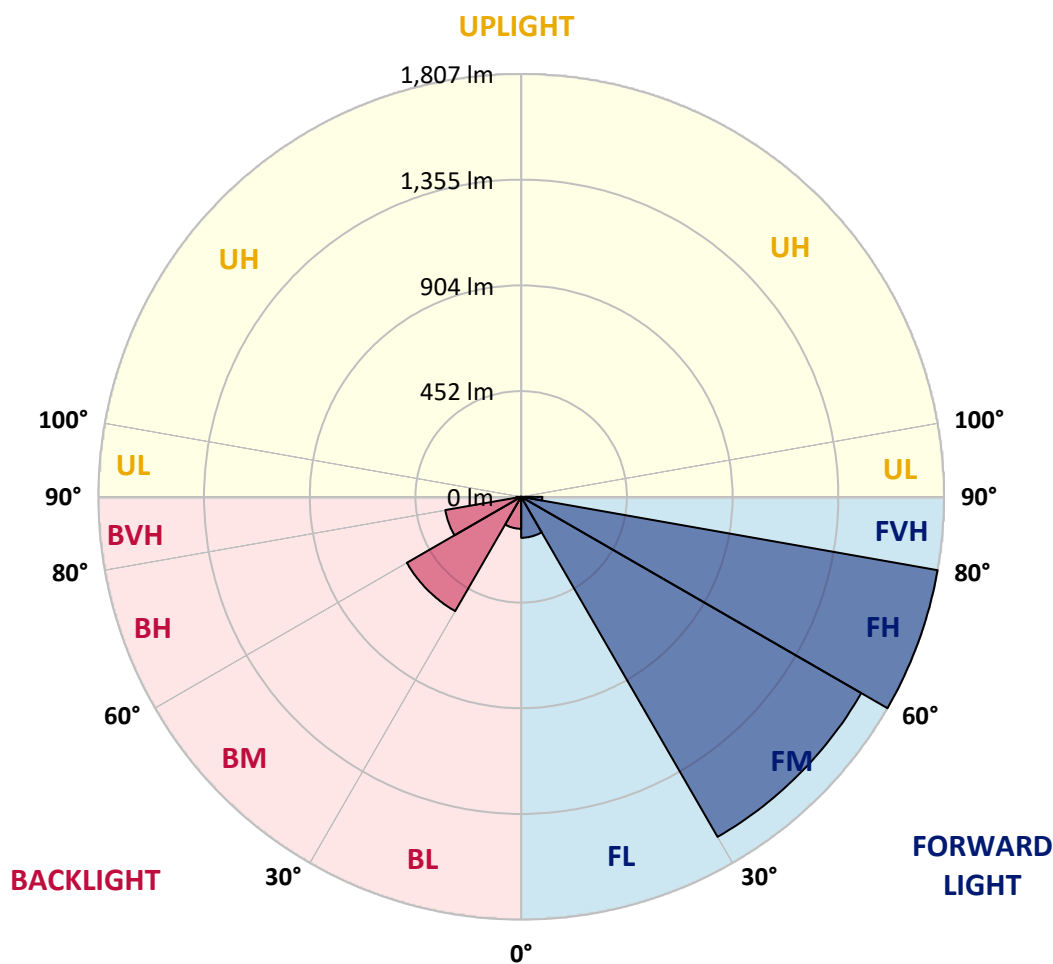
CATALOG NUMBER: UTLD-E02-LED-E-U-SL3-7030

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	175.1	3.6			
FM	(30°-60°)	1678.4	35.0			
FH	(60°-80°)	1807.2	37.6			G2/5000
FVH	(80°-90°)	90.6	1.9			G1/100
BL	(0°-30°)	136.7	2.8	B1/500		
BM	(30°-60°)	564.4	11.8	B1/1000		
BH	(60°-80°)	329.1	6.9	B1/500		G1/500
BVH	(80°-90°)	20.3	0.4			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B1-U0-G2

Type III Short





REPORT NUMBER: P157069

CATALOG NUMBER: UTLD-E02-LED-E-U-SL3-7030

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	56°	57°	58°	59°
0°	82.2	82.2	82.2	82.2	82.2	82.2	82.2	82.2	82.2	82.2	82.2
2.5°	137.0	136.1	136.1	137.0	135.2	134.3	116.9	113.3	109.6	106.9	104.1
5°	113.3	114.2	113.3	113.3	116.0	112.3	123.3	125.1	129.7	131.5	135.2
7.5°	181.8	182.7	180.8	179.0	147.0	117.8	114.2	114.2	114.2	117.8	116.9
10°	192.7	192.7	190.9	189.1	183.6	175.4	127.9	128.8	150.7	134.3	158.9
12.5°	269.4	271.3	267.6	254.8	196.4	243.9	245.7	243.0	241.1	234.7	229.3
15°	290.4	296.8	285.9	272.2	316.9	269.4	258.5	255.7	253.9	253.9	268.5
17.5°	401.0	402.8	394.6	369.0	335.2	321.5	317.8	316.0	315.1	315.1	316.9
20°	478.6	484.1	422.9	441.1	408.3	371.7	358.9	358.9	359.9	352.6	342.5
22.5°	527.0	525.2	496.9	507.8	450.3	415.6	447.5	455.8	464.9	468.5	474.0
25°	625.6	624.7	554.4	506.9	493.2	466.7	473.1	481.3	487.7	502.3	529.7
27.5°	636.6	635.7	585.5	564.5	489.6	533.4	599.2	612.9	621.1	622.9	621.1
30°	717.9	716.1	677.7	589.1	559.0	580.9	643.9	657.6	664.9	670.4	670.4
32.5°	801.9	801.9	729.8	619.3	601.9	664.0	757.2	761.7	767.2	768.1	770.0
35°	864.0	844.8	761.7	695.1	668.6	734.3	851.2	854.0	870.4	913.4	926.1
37.5°	896.9	898.7	867.7	787.3	790.0	864.0	1045.8	1049.4	1052.2	1063.1	1078.7
40°	949.9	959.0	937.1	887.8	909.7	1026.6	1214.8	1226.6	1236.7	1238.5	1268.6
42.5°	1003.8	1011.1	1012.0	1026.6	1045.8	1196.5	1378.2	1390.1	1388.3	1402.0	1447.7
45°	1094.2	1105.2	1123.4	1140.8	1183.7	1353.6	1540.8	1559.1	1544.5	1579.2	1608.4
47.5°	1210.2	1218.4	1249.5	1295.1	1312.5	1491.5	1710.7	1715.3	1728.1	1764.6	1775.6
50°	1312.5	1322.5	1361.8	1422.1	1443.1	1612.1	1840.4	1842.2	1863.2	1915.3	1894.3
52.5°	1390.1	1401.1	1434.9	1528.9	1561.8	1746.3	1940.9	1941.8	1978.3	2026.7	1983.8
55°	1433.0	1444.9	1467.8	1574.6	1638.6	1845.9	2059.6	2065.1	2117.1	2143.6	2110.8
57.5°	1434.9	1445.8	1472.3	1565.5	1671.4	1949.1	2224.0	2251.4	2306.2	2339.1	2339.1
60°	1418.4	1432.1	1457.7	1538.1	1702.5	2064.2	2477.0	2533.6	2621.3	2653.3	2725.4
62.5°	1375.5	1381.9	1397.4	1489.7	1748.2	2202.1	2841.4	2935.5	3065.2	3085.3	3232.3
65°	1277.8	1281.4	1300.6	1405.6	1746.3	2328.1	3172.1	3295.4	3440.6	3454.3	3594.9
67.5°	1149.9	1158.1	1172.7	1273.2	1581.0	2279.7	3200.4	3361.1	3474.4	3479.0	3596.8
70°	951.7	948.1	965.4	1036.7	1274.1	1911.6	2893.5	3044.2	3120.9	3152.9	3233.3
72.5°	623.8	625.6	612.9	656.7	858.5	1346.3	2330.9	2498.9	2533.6	2611.3	2651.5
75°	350.7	343.4	357.1	393.7	484.1	810.1	1586.5	1735.4	1807.5	1871.5	1906.2
77.5°	208.2	205.5	228.3	279.5	390.9	543.4	915.2	989.2	1048.5	1097.8	1160.9
80°	96.8	103.2	101.4	115.1	212.8	464.9	635.7	664.9	690.5	718.8	757.2
82.5°	47.5	52.1	60.3	63.0	74.9	234.7	567.2	596.4	621.1	649.4	687.8
85°	31.1	32.0	44.8	45.7	46.6	71.2	277.7	321.5	338.9	386.3	452.1
87.5°	11.0	15.5	32.9	29.2	29.2	34.7	94.1	103.2	107.8	117.8	131.5
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



REPORT NUMBER: P157069

CATALOG NUMBER: UTLD-E02-LED-E-U-SL3-7030

CANDELA DISTRIBUTION (continued):

	60°	61°	62°	64°	65°	66°	67°	68°	69°	70°	71°
0°	82.2	82.2	82.2	82.2	82.2	82.2	82.2	82.2	82.2	82.2	82.2
2.5°	103.2	103.2	99.6	95.9	94.1	94.1	91.3	91.3	90.4	89.5	87.7
5°	134.3	136.1	136.1	136.1	135.2	134.3	133.3	131.5	129.7	126.0	123.3
7.5°	114.2	112.3	110.5	106.9	107.8	110.5	113.3	116.9	122.4	125.1	126.0
10°	160.7	165.3	164.4	165.3	164.4	166.2	166.2	168.1	167.1	168.1	169.9
12.5°	220.1	201.9	184.5	180.8	179.9	179.0	180.8	179.9	184.5	187.2	187.2
15°	276.7	295.9	296.8	306.9	305.1	290.4	274.9	270.4	266.7	266.7	257.6
17.5°	317.8	324.2	325.2	322.4	326.1	325.2	320.6	315.1	308.7	296.8	279.5
20°	379.0	388.2	393.7	399.1	410.1	401.9	400.0	436.6	441.1	444.8	441.1
22.5°	481.3	480.4	477.7	463.1	455.8	454.8	457.6	464.9	464.0	466.7	469.5
25°	542.5	541.6	548.9	575.4	582.7	609.2	601.9	601.9	606.5	611.0	603.7
27.5°	616.5	624.7	634.8	633.9	646.7	643.0	642.1	649.4	649.4	640.3	645.7
30°	675.0	700.5	735.2	746.2	738.9	738.9	748.9	759.0	756.3	755.3	757.2
32.5°	780.9	806.5	784.6	809.2	794.6	818.4	855.8	881.4	890.5	889.6	903.3
35°	951.7	956.3	942.6	952.6	970.0	974.5	978.2	978.2	967.2	985.5	993.7
37.5°	1096.9	1074.1	1094.2	1082.3	1095.1	1109.7	1107.9	1090.5	1085.1	1115.2	1112.5
40°	1281.4	1244.9	1270.5	1264.1	1271.4	1276.0	1255.9	1244.0	1258.6	1267.7	1265.9
42.5°	1417.5	1436.7	1437.6	1434.9	1441.3	1442.2	1405.6	1411.1	1428.5	1425.7	1416.6
45°	1564.6	1596.5	1579.2	1605.7	1608.4	1572.8	1564.6	1588.3	1593.8	1584.7	1573.7
47.5°	1743.6	1764.6	1735.4	1775.6	1776.5	1736.3	1754.5	1771.0	1774.6	1756.4	1772.8
50°	1897.9	1899.8	1893.4	1924.4	1906.2	1886.1	1926.3	1935.4	1927.2	1902.5	1928.1
52.5°	2024.9	2000.2	2025.8	2068.7	2019.4	2022.2	2082.4	2075.1	2049.6	2073.3	2056.0
55°	2162.8	2140.9	2202.1	2222.2	2176.5	2218.5	2260.5	2250.5	2221.3	2269.7	2235.9
57.5°	2370.1	2375.6	2429.5	2445.0	2425.9	2519.0	2539.1	2536.4	2537.3	2569.3	2554.6
60°	2743.7	2797.6	2859.7	2907.2	2938.2	3048.8	3050.6	3052.4	3088.0	3103.6	3155.6
62.5°	3222.3	3364.8	3399.5	3457.0	3572.1	3678.1	3655.2	3658.0	3703.6	3667.1	3734.7
65°	3608.6	3760.3	3869.9	3878.1	4038.8	4070.8	4018.7	4073.5	4064.4	4064.4	4093.6
67.5°	3645.2	3801.4	3900.0	3942.9	4129.3	4121.0	4070.8	4153.0	4104.6	4145.7	4133.8
70°	3318.2	3435.1	3537.4	3628.7	3796.8	3787.7	3790.4	3903.7	3897.3	3929.2	3896.4
72.5°	2746.4	2849.7	2906.3	3072.5	3116.4	3110.0	3178.5	3187.6	3238.7	3308.2	3265.2
75°	2056.9	2124.5	2129.0	2239.5	2222.2	2201.2	2211.2	2247.8	2152.8	2092.5	2044.1
77.5°	1255.9	1271.4	1256.8	1243.1	1198.3	1154.5	1178.2	1158.1	1096.9	1057.7	1011.1
80°	791.0	810.1	817.4	861.3	849.4	886.9	915.2	943.5	951.7	917.9	885.0
82.5°	732.5	738.9	760.8	805.6	813.8	862.2	868.6	885.9	855.8	836.6	777.3
85°	471.3	485.9	530.7	502.3	540.7	541.6	521.5	519.7	461.2	431.1	362.6
87.5°	144.3	148.0	165.3	166.2	188.2	191.8	198.2	191.8	171.7	144.3	119.6
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



REPORT NUMBER: P157069

CATALOG NUMBER: UTLD-E02-LED-E-U-SL3-7030

CANDELA DISTRIBUTION (continued):

	72°	73°	74°	75°	76°	77°	78°	79°	80°	81°	82°
0°	82.2	82.2	82.2	82.2	82.2	82.2	82.2	82.2	82.2	82.2	82.2
2.5°	86.8	85.9	84.9	84.9	84.9	84.0	84.0	84.0	84.0	83.1	83.1
5°	117.8	113.3	107.8	100.5	93.2	90.4	90.4	88.6	87.7	86.8	85.9
7.5°	126.0	125.1	125.1	125.1	123.3	121.5	119.6	111.4	95.0	87.7	86.8
10°	169.9	175.4	184.5	193.6	195.5	195.5	193.6	190.0	186.3	181.8	167.1
12.5°	186.3	186.3	183.6	180.8	184.5	192.7	200.9	204.6	203.7	201.9	200.9
15°	254.8	254.8	253.9	252.1	252.1	251.2	252.1	256.7	262.1	267.6	267.6
17.5°	279.5	277.7	278.6	281.3	270.4	267.6	266.7	262.1	261.2	264.9	267.6
20°	436.6	430.2	411.9	410.1	406.4	404.6	403.7	398.2	395.5	402.8	403.7
22.5°	465.8	474.0	468.5	495.9	451.2	453.0	482.2	498.7	498.7	495.9	491.4
25°	611.9	606.5	612.9	614.7	605.6	612.9	599.2	591.9	581.8	580.9	582.7
27.5°	647.6	663.1	665.8	691.4	706.9	699.6	727.9	716.1	706.0	697.8	705.1
30°	769.0	764.5	771.8	774.5	784.6	779.1	769.0	774.5	782.7	795.5	785.5
32.5°	915.2	922.5	928.9	930.7	936.2	928.9	929.8	948.1	959.9	946.2	925.2
35°	1002.9	1002.9	1014.7	1012.9	1002.9	1006.5	1037.6	1044.9	1032.1	1023.0	1037.6
37.5°	1115.2	1113.4	1114.3	1117.0	1110.6	1145.3	1161.8	1143.5	1129.8	1158.1	1146.3
40°	1253.1	1265.9	1254.9	1256.8	1284.2	1304.3	1286.9	1273.2	1307.0	1286.0	1268.6
42.5°	1424.8	1413.0	1397.4	1429.4	1455.0	1441.3	1421.2	1455.9	1445.8	1416.6	1466.8
45°	1594.7	1579.2	1581.9	1610.2	1620.3	1592.0	1610.2	1634.9	1589.2	1636.7	1655.0
47.5°	1744.5	1751.8	1783.8	1810.3	1775.6	1783.8	1811.2	1773.7	1808.4	1844.1	1840.4
50°	1902.5	1934.5	1956.4	1951.8	1928.1	1980.1	1955.5	1941.8	2015.8	2025.8	2036.8
52.5°	2051.4	2099.8	2104.4	2076.0	2112.6	2141.8	2108.0	2203.0	2234.1	2241.4	2272.4
55°	2262.4	2306.2	2287.9	2281.5	2372.9	2351.9	2420.4	2538.2	2552.8	2582.0	2587.5
57.5°	2613.1	2646.0	2626.8	2700.8	2774.8	2762.0	2966.6	3026.8	3110.0	3126.4	3141.9
60°	3219.6	3194.0	3194.0	3352.9	3333.7	3465.3	3613.2	3629.7	3719.2	3725.6	3743.8
62.5°	3743.8	3732.9	3818.7	3865.3	3856.2	4095.5	4133.8	4187.7	4177.7	4195.9	4085.4
65°	4045.2	4014.2	4104.6	4043.4	4217.9	4324.7	4338.4	4364.0	4321.1	4259.9	4190.5
67.5°	4048.9	4054.4	4063.5	4022.4	4221.5	4228.8	4251.6	4214.2	4177.7	4019.7	3948.4
70°	3824.2	3859.8	3782.2	3856.2	3935.6	3892.7	3878.1	3780.4	3684.5	3519.1	3378.5
72.5°	3200.4	3152.9	3106.3	3162.0	3123.7	3045.1	2951.0	2829.6	2651.5	2526.3	2391.2
75°	1932.6	1844.1	1890.6	1809.3	1694.3	1662.3	1555.4	1521.6	1379.2	1197.4	1128.9
77.5°	964.5	872.2	884.1	814.7	727.0	654.9	544.4	445.7	355.3	274.9	224.7
80°	807.4	762.6	717.9	644.8	570.8	474.0	375.4	265.8	180.8	132.4	113.3
82.5°	695.1	682.3	594.6	524.3	442.1	359.9	253.9	175.4	113.3	87.7	81.3
85°	321.5	289.5	251.2	240.2	189.1	154.4	115.1	84.9	65.8	58.5	53.9
87.5°	116.0	99.6	92.2	79.5	69.4	63.0	59.4	57.5	57.5	57.5	54.8
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



REPORT NUMBER: P157069

CATALOG NUMBER: UTLD-E02-LED-E-U-SL3-7030

CANDELA DISTRIBUTION (continued):

	83°	84°	85°	86°	87°	88°	89°	90°	95°	105°	115°
0°	82.2	82.2	82.2	82.2	82.2	82.2	82.2	82.2	82.2	82.2	82.2
2.5°	83.1	83.1	82.2	82.2	82.2	82.2	82.2	81.3	81.3	81.3	83.1
5°	85.9	84.9	84.9	84.0	84.0	84.0	83.1	83.1	82.2	84.9	114.2
7.5°	86.8	87.7	87.7	87.7	87.7	87.7	86.8	86.8	86.8	96.8	112.3
10°	148.9	143.4	142.5	140.7	138.8	137.9	136.1	133.3	137.0	186.3	129.7
12.5°	195.5	174.4	158.0	155.3	153.4	150.7	150.7	143.4	149.8	178.1	138.8
15°	265.8	259.4	241.1	223.8	225.6	225.6	223.8	222.9	206.4	208.2	211.0
17.5°	274.0	287.7	297.8	274.9	253.9	240.2	243.9	263.0	236.6	226.5	270.4
20°	402.8	407.4	409.2	396.4	368.1	368.1	372.6	377.2	356.2	352.6	351.6
22.5°	483.2	488.6	485.0	490.5	483.2	478.6	469.5	459.4	448.5	404.6	432.9
25°	584.5	598.2	605.6	593.7	576.3	555.3	548.9	549.8	568.1	565.4	599.2
27.5°	714.2	706.9	697.8	706.0	713.3	690.5	682.3	674.1	669.5	738.9	657.6
30°	760.8	755.3	767.2	755.3	753.5	763.6	772.7	758.1	757.2	812.9	745.3
32.5°	935.3	931.6	904.2	915.2	927.1	928.9	928.0	943.5	934.4	946.2	782.7
35°	1019.3	1000.1	1026.6	1030.3	1017.5	1033.9	1033.9	1030.3	1054.9	1006.5	813.8
37.5°	1132.6	1146.3	1163.6	1169.1	1182.8	1152.6	1177.3	1181.9	1220.2	1065.9	791.0
40°	1313.4	1323.4	1334.4	1332.6	1318.9	1351.8	1319.8	1332.6	1375.5	1100.6	765.4
42.5°	1481.5	1490.6	1507.0	1506.1	1511.6	1495.2	1520.7	1511.6	1517.1	1109.7	733.4
45°	1659.6	1682.4	1666.9	1700.7	1691.5	1685.1	1700.7	1695.2	1639.5	1127.1	679.5
47.5°	1861.4	1855.9	1871.5	1871.5	1877.8	1888.8	1872.4	1876.9	1745.4	1138.9	621.1
50°	2037.7	2045.9	2061.4	2059.6	2073.3	2060.5	2076.0	2024.9	1833.1	1131.6	546.2
52.5°	2266.9	2299.8	2282.5	2291.6	2277.0	2299.8	2252.3	2228.6	1952.7	1096.9	469.5
55°	2647.8	2596.7	2629.5	2593.0	2595.7	2589.3	2529.1	2512.6	2127.2	1078.7	381.8
57.5°	3124.6	3119.1	3094.4	3048.8	3037.8	2998.5	2948.3	2889.8	2405.8	1073.2	309.6
60°	3702.7	3680.8	3604.1	3561.2	3482.6	3403.1	3359.3	3288.1	2702.6	1049.4	255.7
62.5°	4076.3	3983.1	3927.4	3825.1	3752.0	3659.8	3588.6	3456.1	2786.6	996.5	226.5
65°	4094.5	4007.8	3912.8	3792.2	3674.4	3594.0	3465.3	3341.9	2660.6	861.3	189.1
67.5°	3830.6	3736.5	3548.4	3458.9	3343.8	3248.8	3093.5	2985.7	2339.1	691.4	149.8
70°	3299.9	3141.0	2967.5	2846.9	2749.2	2637.8	2491.6	2373.8	1866.9	508.7	116.0
72.5°	2285.2	2193.9	2034.0	1972.8	1876.9	1823.0	1745.4	1698.8	1320.7	349.8	95.9
75°	1111.5	1043.0	947.1	967.2	899.7	914.3	924.3	870.4	729.8	198.2	83.1
77.5°	207.3	217.4	193.6	193.6	196.4	187.2	189.1	205.5	204.6	100.5	70.3
80°	105.9	104.1	100.5	98.6	94.1	91.3	87.7	85.9	83.1	72.2	61.2
82.5°	76.7	72.2	67.6	64.8	62.1	58.5	55.7	56.6	62.1	71.2	65.8
85°	49.3	47.5	43.8	42.9	42.0	41.1	42.0	43.8	59.4	84.9	64.8
87.5°	53.0	48.4	43.8	42.0	41.1	39.3	38.4	41.1	63.0	92.2	55.7
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



REPORT NUMBER: P157069

CATALOG NUMBER: UTLD-E02-LED-E-U-SL3-7030

CANDELA DISTRIBUTION (continued):

	125°	135°	145°	155°	165°	175°	180°
0°	82.2	82.2	82.2	82.2	82.2	82.2	82.2
2.5°	84.9	91.3	112.3	128.8	130.6	130.6	129.7
5°	127.9	88.6	82.2	84.0	80.4	81.3	80.4
7.5°	81.3	81.3	83.1	115.1	129.7	135.2	131.5
10°	96.8	128.8	130.6	136.1	137.0	136.1	135.2
12.5°	188.2	185.4	141.6	150.7	196.4	199.1	198.2
15°	202.8	200.9	244.8	202.8	210.1	211.9	210.1
17.5°	264.9	264.9	264.0	243.0	273.1	273.1	272.2
20°	313.3	326.1	316.9	304.1	267.6	268.5	268.5
22.5°	443.9	362.6	346.2	331.5	300.5	300.5	299.6
25°	457.6	407.4	363.5	317.8	291.4	318.8	316.0
27.5°	590.0	425.6	341.6	323.3	289.5	281.3	281.3
30°	580.9	449.4	381.8	295.0	279.5	267.6	262.1
32.5°	614.7	444.8	337.0	268.5	227.4	222.9	217.4
35°	595.5	422.0	288.6	213.7	174.4	166.2	166.2
37.5°	575.4	359.9	232.9	158.9	138.8	132.4	133.3
40°	506.9	289.5	161.7	122.4	122.4	123.3	123.3
42.5°	432.9	200.9	118.7	105.0	110.5	114.2	113.3
45°	340.7	135.2	95.9	96.8	104.1	106.9	106.9
47.5°	243.0	100.5	87.7	90.4	98.6	102.3	101.4
50°	165.3	85.9	82.2	86.8	95.0	96.8	96.8
52.5°	119.6	81.3	78.5	83.1	91.3	93.2	93.2
55°	99.6	79.5	76.7	80.4	87.7	89.5	90.4
57.5°	94.1	79.5	75.8	79.5	84.9	86.8	86.8
60°	94.1	80.4	77.6	79.5	82.2	84.0	84.9
62.5°	95.9	84.9	81.3	81.3	81.3	82.2	82.2
65°	99.6	93.2	87.7	84.9	81.3	78.5	79.5
67.5°	104.1	101.4	96.8	89.5	79.5	74.0	74.0
70°	107.8	109.6	107.8	93.2	77.6	68.5	67.6
72.5°	106.9	116.0	109.6	94.1	75.8	63.9	63.0
75°	100.5	107.8	95.0	84.9	71.2	60.3	58.5
77.5°	87.7	79.5	65.8	65.8	59.4	53.9	52.1
80°	70.3	53.0	43.8	46.6	44.8	33.8	29.2
82.5°	55.7	34.7	32.9	34.7	33.8	24.7	21.0
85°	45.7	23.7	23.7	26.5	23.7	18.3	13.7
87.5°	35.6	13.7	15.5	14.6	14.6	11.0	3.7
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)