

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: P157073

Luminaire Tested: **UTLD-F02-LED-E-U-SL3-8030**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P157073
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-F02-LED-E-U-SL3-8030
Description: TRADITIONAIRE LED DOWNLIGHT LUMINAIRE
(2) LIGHTBARS WITH AccuLED OPTICS - TYPE 3 W/ SPILL LIGHT CONTROL
Light Source: (14) 3000K CCT, 80 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3663.1 lumens
Efficiency: N/A
Efficacy: 66.6 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 - 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

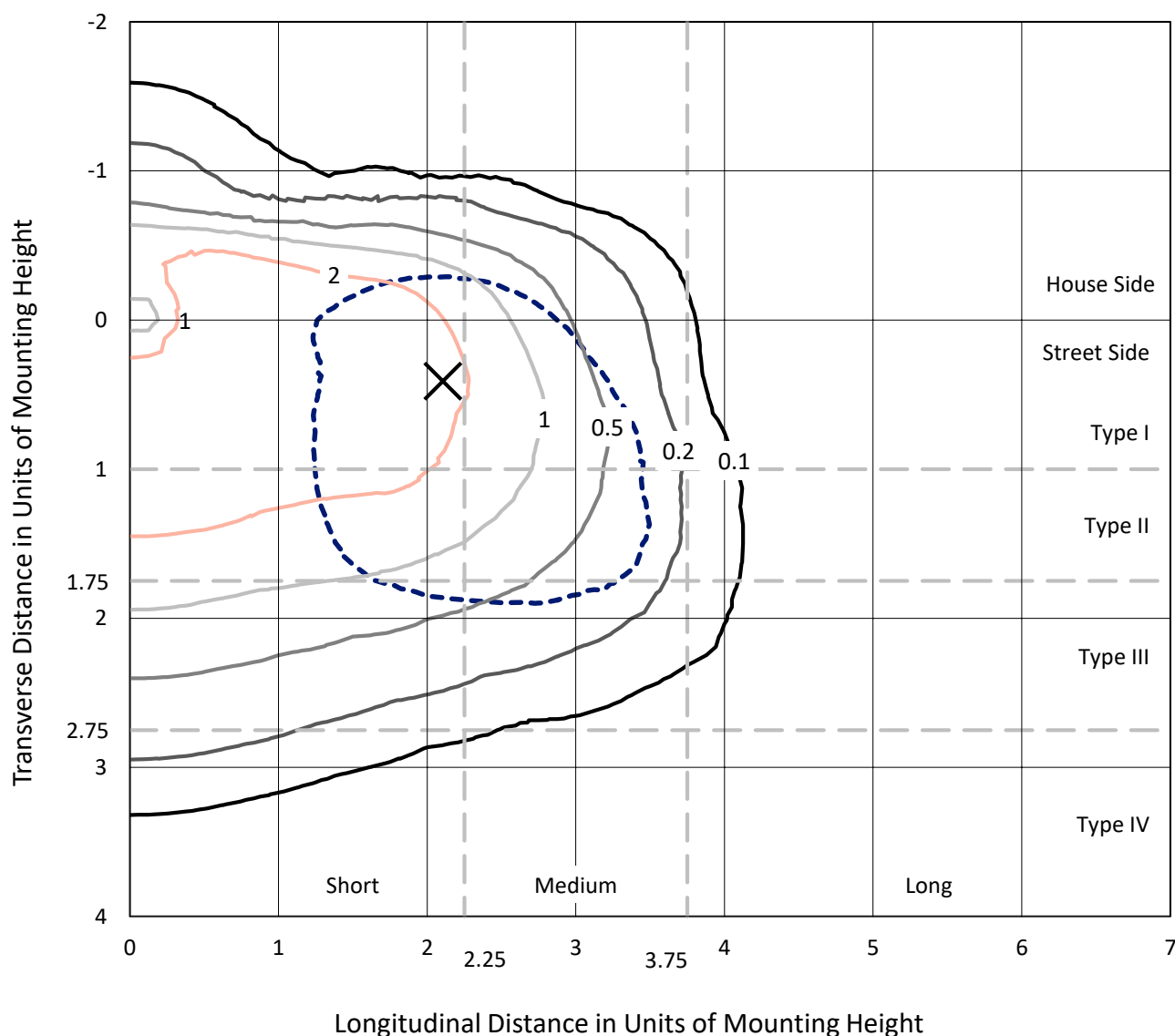


REPORT NUMBER: P157073

CATALOG NUMBER: UTLD-F02-LED-E-U-SL3-8030

Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 --- 1/2 Max cd

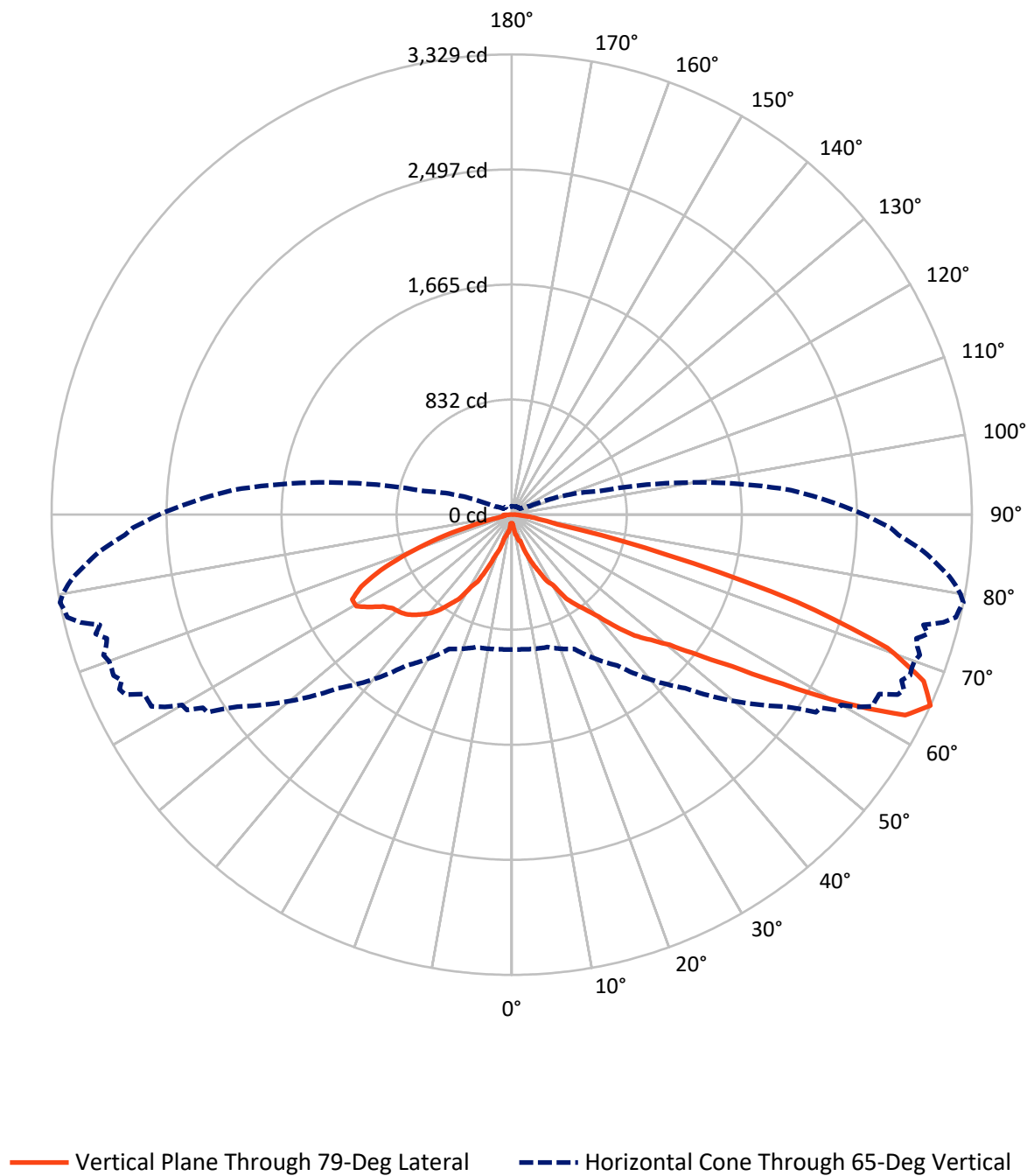


Based on 10 foot mounting height. Maximum calculated value = 4.6 fc
 Type III - Short - Semi-Cutoff

REPORT NUMBER: P157073

CATALOG NUMBER: UTLD-F02-LED-E-U-SL3-8030

Luminous Intensity Polar Plot



REPORT NUMBER: P157073

CATALOG NUMBER: UTLD-F02-LED-E-U-SL3-8030

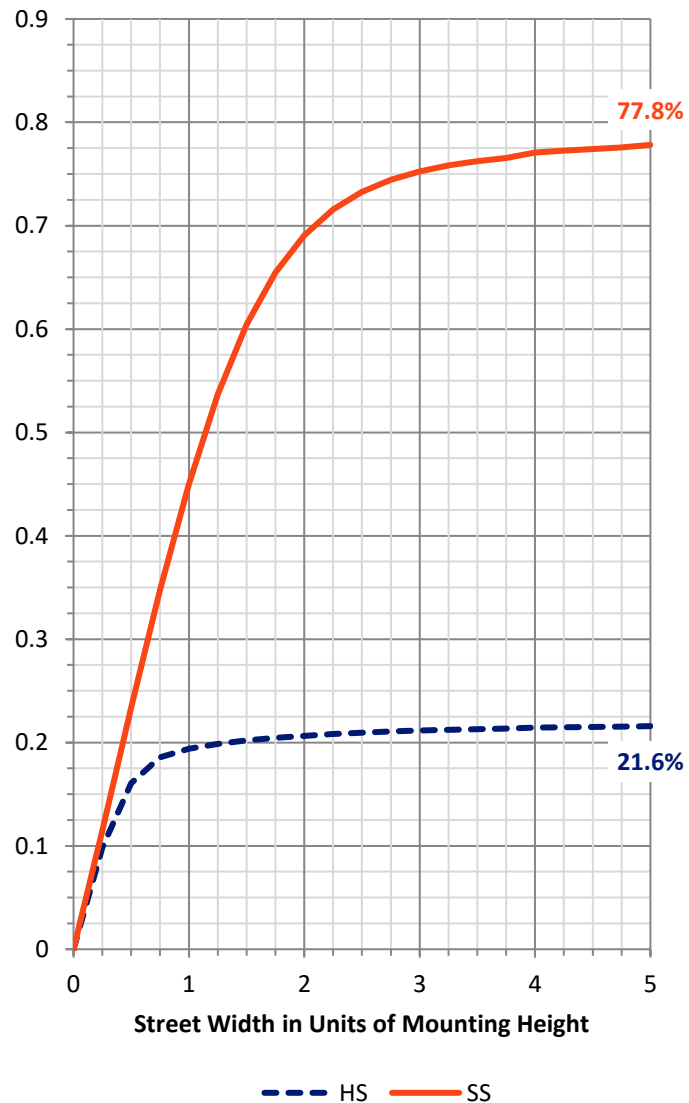
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	801.4	0.0	801.4
	% Fixture	21.9	0.0	21.9
Street Side	Lumens	2861.7	0.0	2861.7
	% Fixture	78.1	0.0	78.1
Total	Lumens	3663.1	0.0	3663.1
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	8.8	0.2
10°-20°	56.1	1.5
20°-30°	173.0	4.7
30°-40°	333.0	9.1
40°-50°	550.3	15.0
50°-60°	827.7	22.6
60°-70°	1108.6	30.3
70°-80°	521.1	14.2
80°-90°	84.6	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°	3663.1	100.0
0°-180°	3663.1	100.0

Coefficient of Utilization



REPORT NUMBER: P157073

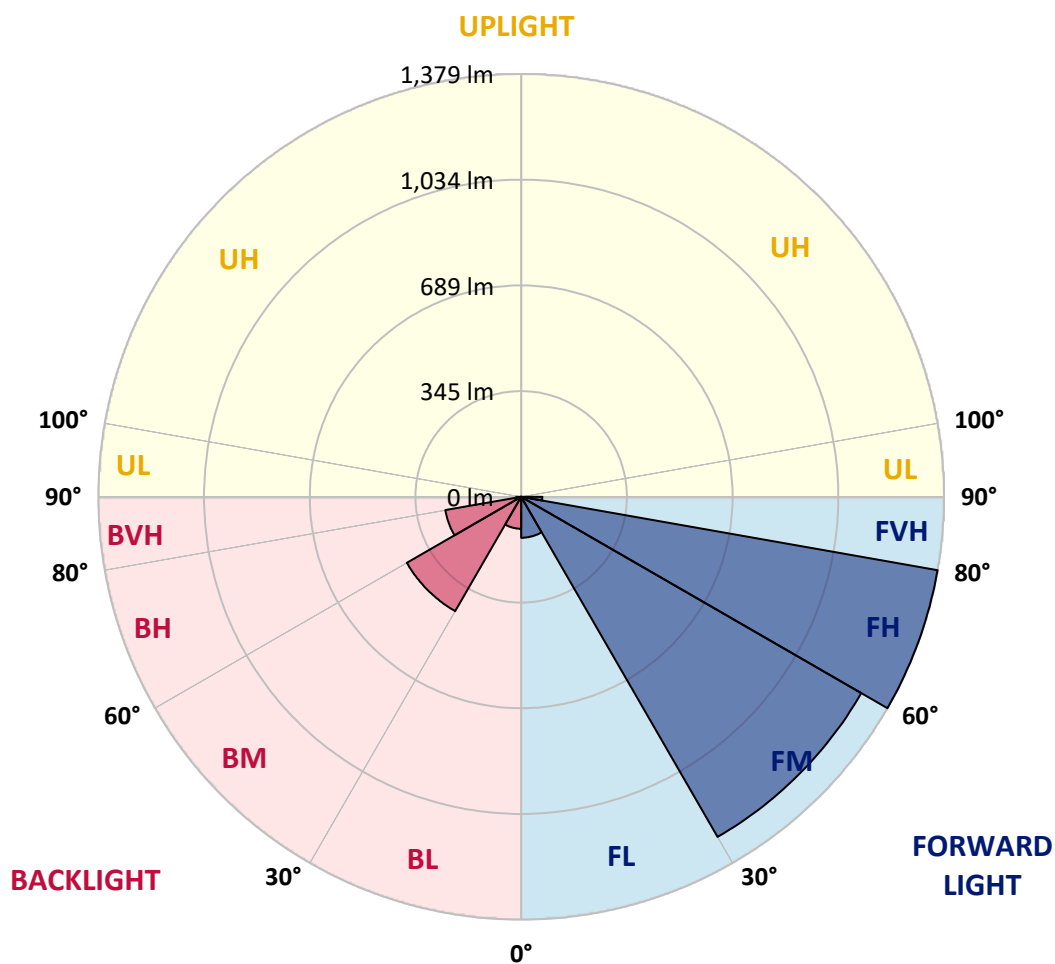
CATALOG NUMBER: UTLD-F02-LED-E-U-SL3-8030

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	133.6	3.6			
FM	(30°-60°)	1280.4	35.0			
FH	(60°-80°)	1378.6	37.6			G1/1800
FVH	(80°-90°)	69.1	1.9			G1/100
BL	(0°-30°)	104.3	2.8	B0/110		
BM	(30°-60°)	430.5	11.8	B1/1000		
BH	(60°-80°)	251.1	6.9	B1/500		G1/500
BVH	(80°-90°)	15.5	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-G1

Type III Short





REPORT NUMBER: P157073

CATALOG NUMBER: UTLD-F02-LED-E-U-SL3-8030

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	56°	57°	58°	59°
0°	62.7	62.7	62.7	62.7	62.7	62.7	62.7	62.7	62.7	62.7	62.7
2.5°	104.5	103.8	103.8	104.5	103.1	102.4	89.2	86.4	83.6	81.5	79.4
5°	86.4	87.1	86.4	86.4	88.5	85.7	94.1	95.5	98.9	100.3	103.1
7.5°	138.7	139.3	138.0	136.6	112.2	89.9	87.1	87.1	87.1	89.9	89.2
10°	147.0	147.0	145.6	144.2	140.0	133.8	97.5	98.2	115.0	102.4	121.2
12.5°	205.5	206.9	204.1	194.4	149.8	186.0	187.4	185.3	183.9	179.1	174.9
15°	221.6	226.4	218.1	207.6	241.8	205.5	197.2	195.1	193.7	193.7	204.8
17.5°	305.9	307.3	301.0	281.5	255.7	245.3	242.5	241.1	240.4	240.4	241.8
20°	365.1	369.3	322.6	336.5	311.4	283.6	273.8	273.8	274.5	268.9	261.3
22.5°	402.0	400.6	379.0	387.4	343.5	317.0	341.4	347.7	354.6	357.4	361.6
25°	477.3	476.6	422.9	386.7	376.2	356.0	360.9	367.2	372.1	383.2	404.1
27.5°	485.6	484.9	446.6	430.6	373.5	406.9	457.1	467.5	473.8	475.2	473.8
30°	547.6	546.2	517.0	449.4	426.4	443.1	491.2	501.6	507.2	511.4	511.4
32.5°	611.7	611.7	556.7	472.4	459.1	506.5	577.6	581.1	585.3	586.0	587.3
35°	659.1	644.5	581.1	530.2	510.0	560.2	649.4	651.4	664.0	696.7	706.5
37.5°	684.2	685.6	661.9	600.6	602.7	659.1	797.8	800.5	802.6	811.0	822.8
40°	724.6	731.6	714.9	677.2	693.9	783.1	926.7	935.7	943.4	944.8	967.8
42.5°	765.7	771.3	772.0	783.1	797.8	912.7	1051.4	1060.4	1059.0	1069.5	1104.3
45°	834.7	843.1	857.0	870.2	903.0	1032.6	1175.4	1189.3	1178.2	1204.7	1227.0
47.5°	923.2	929.4	953.1	988.0	1001.2	1137.8	1305.0	1308.5	1318.2	1346.1	1354.5
50°	1001.2	1008.9	1038.8	1084.8	1100.8	1229.7	1403.9	1405.3	1421.3	1461.1	1445.0
52.5°	1060.4	1068.8	1094.6	1166.3	1191.4	1332.2	1480.6	1481.3	1509.1	1546.1	1513.3
55°	1093.2	1102.2	1119.7	1201.2	1249.9	1408.1	1571.1	1575.3	1615.0	1635.2	1610.2
57.5°	1094.6	1102.9	1123.1	1194.2	1275.0	1486.8	1696.6	1717.5	1759.3	1784.3	1784.3
60°	1082.0	1092.5	1112.0	1173.3	1298.7	1574.6	1889.5	1932.7	1999.6	2024.0	2079.1
62.5°	1049.3	1054.2	1066.0	1136.4	1333.6	1679.8	2167.5	2239.3	2338.2	2353.6	2465.7
65°	974.7	977.5	992.2	1072.3	1332.2	1776.0	2419.8	2513.8	2624.6	2635.1	2742.4
67.5°	877.2	883.5	894.6	971.2	1206.0	1739.1	2441.4	2564.0	2650.4	2653.9	2743.7
70°	726.0	723.2	736.4	790.8	971.9	1458.3	2207.3	2322.2	2380.7	2405.1	2466.4
72.5°	475.9	477.3	467.5	501.0	654.9	1027.0	1778.1	1906.3	1932.7	1992.0	2022.6
75°	267.5	262.0	272.4	300.3	369.3	618.0	1210.2	1323.8	1378.8	1427.6	1454.1
77.5°	158.9	156.8	174.2	213.2	298.2	414.6	698.1	754.6	799.9	837.5	885.6
80°	73.9	78.7	77.3	87.8	162.3	354.6	484.9	507.2	526.7	548.3	577.6
82.5°	36.2	39.7	46.0	48.1	57.1	179.1	432.7	455.0	473.8	495.4	524.6
85°	23.7	24.4	34.1	34.8	35.5	54.3	211.8	245.3	258.5	294.7	344.9
87.5°	8.4	11.8	25.1	22.3	22.3	26.5	71.8	78.7	82.2	89.9	100.3
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: P157073

CATALOG NUMBER: UTLD-F02-LED-E-U-SL3-8030

CANDELA DISTRIBUTION (continued):

	60°	61°	62°	64°	65°	66°	67°	68°	69°	70°	71°
0°	62.7	62.7	62.7	62.7	62.7	62.7	62.7	62.7	62.7	62.7	62.7
2.5°	78.7	78.7	75.9	73.2	71.8	71.8	69.7	69.7	69.0	68.3	66.9
5°	102.4	103.8	103.8	103.8	103.1	102.4	101.7	100.3	98.9	96.1	94.1
7.5°	87.1	85.7	84.3	81.5	82.2	84.3	86.4	89.2	93.4	95.5	96.1
10°	122.6	126.1	125.4	126.1	125.4	126.8	126.8	128.2	127.5	128.2	129.6
12.5°	167.9	154.0	140.7	138.0	137.3	136.6	138.0	137.3	140.7	142.8	142.8
15°	211.1	225.7	226.4	234.1	232.7	221.6	209.7	206.2	203.4	203.4	196.5
17.5°	242.5	247.3	248.0	245.9	248.7	248.0	244.6	240.4	235.5	226.4	213.2
20°	289.1	296.1	300.3	304.5	312.8	306.6	305.2	333.0	336.5	339.3	336.5
22.5°	367.2	366.5	364.4	353.2	347.7	347.0	349.1	354.6	353.9	356.0	358.1
25°	413.9	413.2	418.7	438.9	444.5	464.7	459.1	459.1	462.6	466.1	460.5
27.5°	470.3	476.6	484.2	483.5	493.3	490.5	489.8	495.4	495.4	488.4	492.6
30°	514.9	534.4	560.9	569.2	563.7	563.7	571.3	579.0	576.9	576.2	577.6
32.5°	595.7	615.2	598.5	617.3	606.2	624.3	652.8	672.3	679.3	678.6	689.1
35°	726.0	729.5	719.0	726.7	739.9	743.4	746.2	746.2	737.8	751.8	758.0
37.5°	836.8	819.4	834.7	825.6	835.4	846.5	845.1	831.9	827.7	850.7	848.6
40°	977.5	949.7	969.2	964.3	969.9	973.3	958.0	949.0	960.1	967.1	965.7
42.5°	1081.3	1096.0	1096.7	1094.6	1099.4	1100.1	1072.3	1076.5	1089.7	1087.6	1080.6
45°	1193.5	1217.9	1204.7	1224.9	1227.0	1199.8	1193.5	1211.6	1215.8	1208.8	1200.5
47.5°	1330.1	1346.1	1323.8	1354.5	1355.2	1324.5	1338.4	1351.0	1353.8	1339.8	1352.4
50°	1447.8	1449.2	1444.3	1468.0	1454.1	1438.8	1469.4	1476.4	1470.1	1451.3	1470.8
52.5°	1544.7	1525.9	1545.4	1578.1	1540.5	1542.6	1588.6	1583.0	1563.5	1581.6	1568.4
55°	1649.9	1633.1	1679.8	1695.2	1660.3	1692.4	1724.4	1716.8	1694.5	1731.4	1705.6
57.5°	1808.0	1812.2	1853.3	1865.2	1850.5	1921.6	1936.9	1934.8	1935.5	1959.9	1948.8
60°	2093.0	2134.1	2181.5	2217.7	2241.4	2325.7	2327.1	2328.5	2355.7	2367.5	2407.2
62.5°	2458.1	2566.8	2593.2	2637.1	2724.9	2805.8	2788.3	2790.4	2825.3	2797.4	2849.0
65°	2752.8	2868.5	2952.1	2958.3	3081.0	3105.4	3065.6	3107.4	3100.5	3100.5	3122.8
67.5°	2780.7	2899.8	2975.1	3007.8	3149.9	3143.7	3105.4	3168.1	3131.1	3162.5	3153.4
70°	2531.2	2620.4	2698.5	2768.1	2896.3	2889.4	2891.5	2977.8	2973.0	2997.4	2972.3
72.5°	2095.1	2173.8	2217.0	2343.8	2377.3	2372.4	2424.6	2431.6	2470.6	2523.6	2490.8
75°	1569.0	1620.6	1624.1	1708.4	1695.2	1679.1	1686.8	1714.7	1642.2	1596.2	1559.3
77.5°	958.0	969.9	958.7	948.3	914.1	880.7	898.8	883.5	836.8	806.8	771.3
80°	603.4	618.0	623.6	657.0	648.0	676.5	698.1	719.7	726.0	700.2	675.1
82.5°	558.8	563.7	580.4	614.5	620.8	657.7	662.6	675.8	652.8	638.2	592.9
85°	359.5	370.7	404.8	383.2	412.5	413.2	397.8	396.4	351.9	328.9	276.6
87.5°	110.1	112.9	126.1	126.8	143.5	146.3	151.2	146.3	131.0	110.1	91.3
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: P157073

CATALOG NUMBER: UTLD-F02-LED-E-U-SL3-8030

CANDELA DISTRIBUTION (continued):

	72°	73°	74°	75°	76°	77°	78°	79°	80°	81°	82°
0°	62.7	62.7	62.7	62.7	62.7	62.7	62.7	62.7	62.7	62.7	62.7
2.5°	66.2	65.5	64.8	64.8	64.8	64.1	64.1	64.1	64.1	63.4	63.4
5°	89.9	86.4	82.2	76.6	71.1	69.0	69.0	67.6	66.9	66.2	65.5
7.5°	96.1	95.5	95.5	95.5	94.1	92.7	91.3	85.0	72.5	66.9	66.2
10°	129.6	133.8	140.7	147.7	149.1	149.1	147.7	144.9	142.1	138.7	127.5
12.5°	142.1	142.1	140.0	138.0	140.7	147.0	153.3	156.1	155.4	154.0	153.3
15°	194.4	194.4	193.7	192.3	192.3	191.6	192.3	195.8	200.0	204.1	204.1
17.5°	213.2	211.8	212.5	214.6	206.2	204.1	203.4	200.0	199.3	202.1	204.1
20°	333.0	328.2	314.2	312.8	310.0	308.7	308.0	303.8	301.7	307.3	308.0
22.5°	355.3	361.6	357.4	378.3	344.2	345.6	367.9	380.4	380.4	378.3	374.8
25°	466.8	462.6	467.5	468.9	461.9	467.5	457.1	451.5	443.8	443.1	444.5
27.5°	494.0	505.8	507.9	527.4	539.3	533.7	555.3	546.2	538.6	532.3	537.9
30°	586.7	583.2	588.7	590.8	598.5	594.3	586.7	590.8	597.1	606.9	599.2
32.5°	698.1	703.7	708.6	710.0	714.2	708.6	709.3	723.2	732.3	721.8	705.8
35°	765.0	765.0	774.1	772.7	765.0	767.8	791.5	797.1	787.3	780.3	791.5
37.5°	850.7	849.3	850.0	852.1	847.2	873.7	886.2	872.3	861.9	883.5	874.4
40°	955.9	965.7	957.3	958.7	979.6	994.9	981.7	971.2	997.0	981.0	967.8
42.5°	1086.9	1077.8	1066.0	1090.4	1109.9	1099.4	1084.1	1110.6	1102.9	1080.6	1119.0
45°	1216.5	1204.7	1206.7	1228.3	1236.0	1214.4	1228.3	1247.2	1212.3	1248.6	1262.5
47.5°	1330.8	1336.3	1360.7	1380.9	1354.5	1360.7	1381.6	1353.1	1379.5	1406.7	1403.9
50°	1451.3	1475.7	1492.4	1488.9	1470.8	1510.5	1491.7	1481.3	1537.7	1545.4	1553.7
52.5°	1564.9	1601.8	1605.3	1583.7	1611.5	1633.8	1608.1	1680.5	1704.2	1709.8	1733.5
55°	1725.8	1759.3	1745.3	1740.4	1810.1	1794.1	1846.3	1936.2	1947.4	1969.7	1973.9
57.5°	1993.4	2018.4	2003.8	2060.2	2116.7	2106.9	2263.0	2309.0	2372.4	2384.9	2396.8
60°	2456.0	2436.5	2436.5	2557.7	2543.1	2643.4	2756.3	2768.8	2837.1	2842.0	2855.9
62.5°	2855.9	2847.6	2913.1	2948.6	2941.6	3124.2	3153.4	3194.5	3186.9	3200.8	3116.5
65°	3085.8	3062.2	3131.1	3084.4	3217.5	3299.0	3309.5	3329.0	3296.3	3249.6	3196.6
67.5°	3088.6	3092.8	3099.8	3068.4	3220.3	3225.9	3243.3	3214.7	3186.9	3066.3	3012.0
70°	2917.2	2944.4	2885.2	2941.6	3002.2	2969.5	2958.3	2883.8	2810.6	2684.5	2577.2
72.5°	2441.4	2405.1	2369.6	2412.1	2382.8	2322.9	2251.2	2158.5	2022.6	1927.2	1824.1
75°	1474.3	1406.7	1442.2	1380.2	1292.4	1268.1	1186.5	1160.8	1052.1	913.4	861.2
77.5°	735.8	665.4	674.4	621.5	554.6	499.6	415.3	340.0	271.0	209.7	171.4
80°	615.9	581.8	547.6	491.9	435.5	361.6	286.4	202.8	138.0	101.0	86.4
82.5°	530.2	520.5	453.6	399.9	337.2	274.5	193.7	133.8	86.4	66.9	62.0
85°	245.3	220.9	191.6	183.2	144.2	117.7	87.8	64.8	50.2	44.6	41.1
87.5°	88.5	75.9	70.4	60.6	53.0	48.1	45.3	43.9	43.9	43.9	41.8
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: P157073

CATALOG NUMBER: UTLD-F02-LED-E-U-SL3-8030

CANDELA DISTRIBUTION (continued):

	83°	84°	85°	86°	87°	88°	89°	90°	95°	105°	115°
0°	62.7	62.7	62.7	62.7	62.7	62.7	62.7	62.7	62.7	62.7	62.7
2.5°	63.4	63.4	62.7	62.7	62.7	62.7	62.7	62.0	62.0	62.0	63.4
5°	65.5	64.8	64.8	64.1	64.1	64.1	63.4	63.4	62.7	64.8	87.1
7.5°	66.2	66.9	66.9	66.9	66.9	66.9	66.2	66.2	66.2	73.9	85.7
10°	113.6	109.4	108.7	107.3	105.9	105.2	103.8	101.7	104.5	142.1	98.9
12.5°	149.1	133.1	120.5	118.4	117.1	115.0	115.0	109.4	114.3	135.9	105.9
15°	202.8	197.9	183.9	170.7	172.1	172.1	170.7	170.0	157.5	158.9	160.9
17.5°	209.0	219.5	227.1	209.7	193.7	183.2	186.0	200.7	180.5	172.8	206.2
20°	307.3	310.7	312.1	302.4	280.8	280.8	284.3	287.8	271.7	268.9	268.2
22.5°	368.6	372.8	370.0	374.1	368.6	365.1	358.1	350.5	342.1	308.7	330.3
25°	445.9	456.4	461.9	452.9	439.6	423.6	418.7	419.4	433.4	431.3	457.1
27.5°	544.8	539.3	532.3	538.6	544.2	526.7	520.5	514.2	510.7	563.7	501.6
30°	580.4	576.2	585.3	576.2	574.8	582.5	589.4	578.3	577.6	620.1	568.5
32.5°	713.5	710.7	689.8	698.1	707.2	708.6	707.9	719.7	712.8	721.8	597.1
35°	777.6	762.9	783.1	785.9	776.2	788.7	788.7	785.9	804.7	767.8	620.8
37.5°	864.0	874.4	887.6	891.8	902.3	879.3	898.1	901.6	930.8	813.1	603.4
40°	1001.9	1009.6	1017.9	1016.5	1006.1	1031.2	1006.8	1016.5	1049.3	839.6	583.9
42.5°	1130.1	1137.1	1149.6	1148.9	1153.1	1140.6	1160.1	1153.1	1157.3	846.5	559.5
45°	1266.0	1283.4	1271.5	1297.3	1290.4	1285.5	1297.3	1293.1	1250.6	859.8	518.4
47.5°	1419.9	1415.8	1427.6	1427.6	1432.5	1440.8	1428.3	1431.8	1331.5	868.8	473.8
50°	1554.4	1560.7	1572.5	1571.1	1581.6	1571.8	1583.7	1544.7	1398.3	863.3	416.6
52.5°	1729.3	1754.4	1741.1	1748.1	1737.0	1754.4	1718.1	1700.0	1489.6	836.8	358.1
55°	2019.8	1980.8	2005.9	1978.0	1980.1	1975.2	1929.3	1916.7	1622.7	822.8	291.2
57.5°	2383.5	2379.4	2360.5	2325.7	2317.3	2287.4	2249.1	2204.5	1835.2	818.7	236.2
60°	2824.6	2807.8	2749.3	2716.6	2656.7	2596.0	2562.6	2508.2	2061.6	800.5	195.1
62.5°	3109.5	3038.5	2996.0	2917.9	2862.2	2791.8	2737.5	2636.4	2125.7	760.1	172.8
65°	3123.5	3057.3	2984.8	2892.8	2803.0	2741.7	2643.4	2549.4	2029.6	657.0	144.2
67.5°	2922.1	2850.3	2706.8	2638.5	2550.7	2478.3	2359.8	2277.6	1784.3	527.4	114.3
70°	2517.3	2396.1	2263.7	2171.7	2097.2	2012.2	1900.7	1810.8	1424.1	388.1	88.5
72.5°	1743.2	1673.6	1551.6	1504.9	1431.8	1390.7	1331.5	1295.9	1007.5	266.8	73.2
75°	847.9	795.7	722.5	737.8	686.3	697.4	705.1	664.0	556.7	151.2	63.4
77.5°	158.2	165.8	147.7	147.7	149.8	142.8	144.2	156.8	156.1	76.6	53.6
80°	80.8	79.4	76.6	75.2	71.8	69.7	66.9	65.5	63.4	55.0	46.7
82.5°	58.5	55.0	51.6	49.5	47.4	44.6	42.5	43.2	47.4	54.3	50.2
85°	37.6	36.2	33.4	32.7	32.0	31.4	32.0	33.4	45.3	64.8	49.5
87.5°	40.4	36.9	33.4	32.0	31.4	30.0	29.3	31.4	48.1	70.4	42.5
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: P157073

CATALOG NUMBER: UTLD-F02-LED-E-U-SL3-8030

CANDELA DISTRIBUTION (continued):

	125°	135°	145°	155°	165°	175°	180°
0°	62.7	62.7	62.7	62.7	62.7	62.7	62.7
2.5°	64.8	69.7	85.7	98.2	99.6	99.6	98.9
5°	97.5	67.6	62.7	64.1	61.3	62.0	61.3
7.5°	62.0	62.0	63.4	87.8	98.9	103.1	100.3
10°	73.9	98.2	99.6	103.8	104.5	103.8	103.1
12.5°	143.5	141.4	108.0	115.0	149.8	151.9	151.2
15°	154.7	153.3	186.7	154.7	160.2	161.6	160.2
17.5°	202.1	202.1	201.4	185.3	208.3	208.3	207.6
20°	239.0	248.7	241.8	232.0	204.1	204.8	204.8
22.5°	338.6	276.6	264.1	252.9	229.2	229.2	228.5
25°	349.1	310.7	277.3	242.5	222.3	243.2	241.1
27.5°	450.1	324.7	260.6	246.6	220.9	214.6	214.6
30°	443.1	342.8	291.2	225.0	213.2	204.1	200.0
32.5°	468.9	339.3	257.1	204.8	173.5	170.0	165.8
35°	454.3	321.9	220.2	163.0	133.1	126.8	126.8
37.5°	438.9	274.5	177.7	121.2	105.9	101.0	101.7
40°	386.7	220.9	123.3	93.4	93.4	94.1	94.1
42.5°	330.3	153.3	90.6	80.1	84.3	87.1	86.4
45°	259.9	103.1	73.2	73.9	79.4	81.5	81.5
47.5°	185.3	76.6	66.9	69.0	75.2	78.0	77.3
50°	126.1	65.5	62.7	66.2	72.5	73.9	73.9
52.5°	91.3	62.0	59.9	63.4	69.7	71.1	71.1
55°	75.9	60.6	58.5	61.3	66.9	68.3	69.0
57.5°	71.8	60.6	57.8	60.6	64.8	66.2	66.2
60°	71.8	61.3	59.2	60.6	62.7	64.1	64.8
62.5°	73.2	64.8	62.0	62.0	62.0	62.7	62.7
65°	75.9	71.1	66.9	64.8	62.0	59.9	60.6
67.5°	79.4	77.3	73.9	68.3	60.6	56.4	56.4
70°	82.2	83.6	82.2	71.1	59.2	52.3	51.6
72.5°	81.5	88.5	83.6	71.8	57.8	48.8	48.1
75°	76.6	82.2	72.5	64.8	54.3	46.0	44.6
77.5°	66.9	60.6	50.2	50.2	45.3	41.1	39.7
80°	53.6	40.4	33.4	35.5	34.1	25.8	22.3
82.5°	42.5	26.5	25.1	26.5	25.8	18.8	16.0
85°	34.8	18.1	18.1	20.2	18.1	13.9	10.5
87.5°	27.2	10.5	11.8	11.1	11.1	8.4	2.8
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)