

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: McGRAW-EDISON

Report Number: P226324

Luminaire Tested: **IST-AF-1200-LED-E1-T2-7030-ULG**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P226324
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P35937)-DOWNLIGHT AND
Test Lab: INNOVATION CENTER-P3
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: MCGRAW-EDISON
Catalog Number: IST-AF-1200-LED-E1-T2-7030-ULG
Description: IMPACT ELITE LED TRAPEZOID LUMINAIRE WITH UPLIGHT
LIGHT SQUARE WITH ACCULED OPTICS-TYPE II, WITH UPLIGHT GLOW
Light Source: (16) 3000K CCT, 70 CRI LEDs and (1) UPLIGHT LED
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7837.4 lumens
Efficiency: N/A
Efficacy: 94.8 lumens/watt
Luminous Opening: Rectangular w/ Sides (W: 0.5' x L: 0.5' x H: 0.54')
IES Classification: Type II - Medium - Non-Cutoff
BUG Rating: B1 - U5 - G2

Input Watts (W): 82.7
Input Voltage (V): 120
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

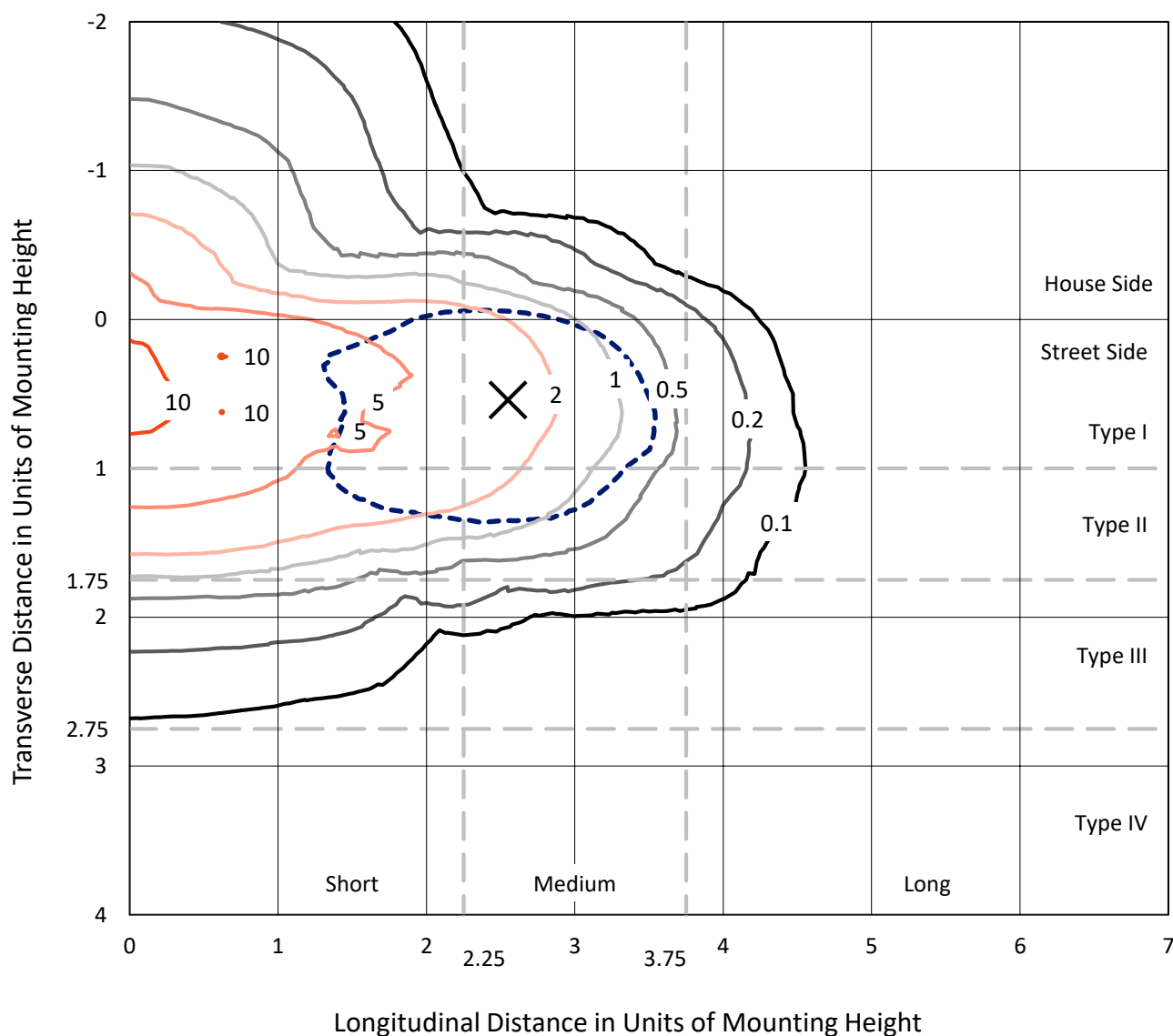


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

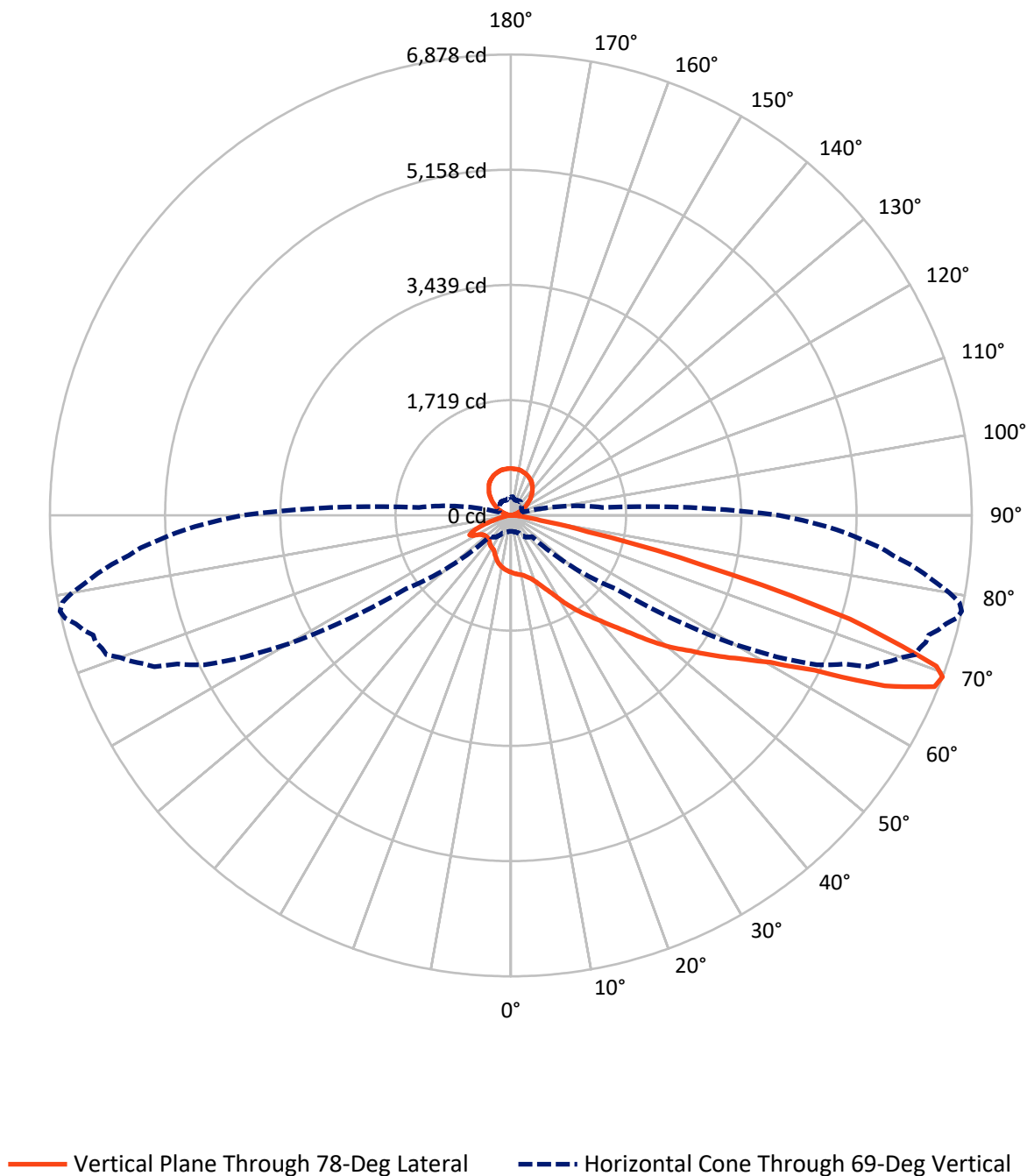


Based on 10 foot mounting height. Maximum calculated value = 10.9 fc
 Type II - Medium - Non-Cutoff

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Luminous Intensity Polar Plot



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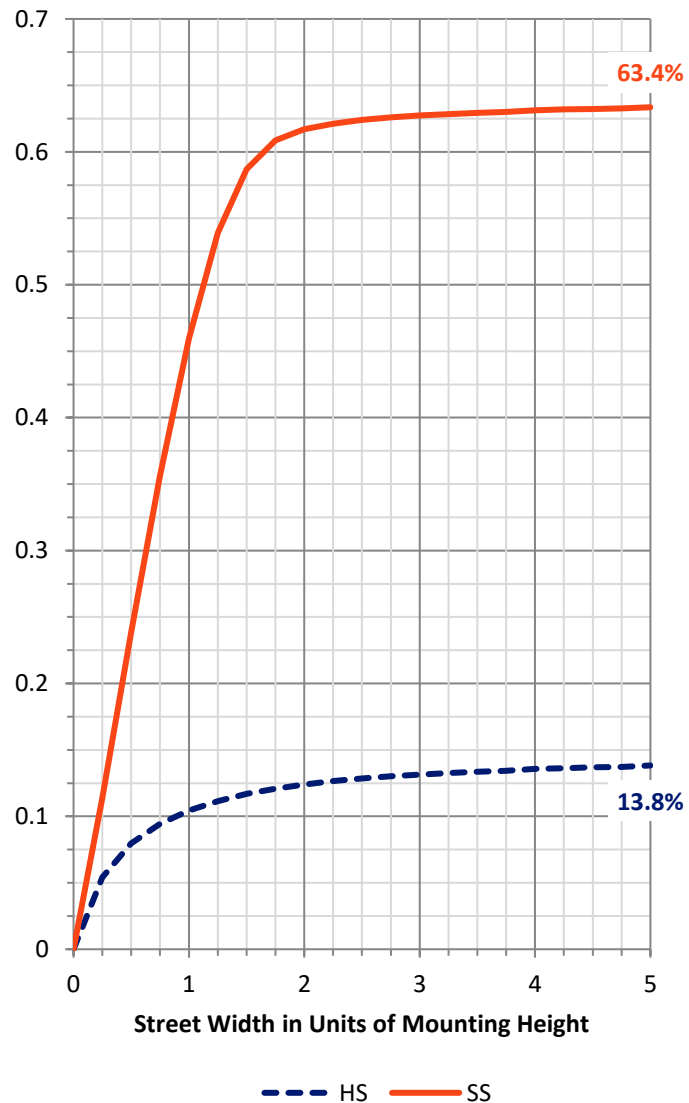
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1116.0	869.7	1985.7
	% Fixture	14.2	11.1	25.3
Street Side	Lumens	4983.1	868.6	5851.7
	% Fixture	63.6	11.1	74.7
Total	Lumens	6099.2	1738.3	7837.4
	% Fixture	77.8	22.2	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	78.8	1.0
10°-20°	237.9	3.0
20°-30°	426.5	5.4
30°-40°	696.2	8.9
40°-50°	1029.8	13.1
50°-60°	1344.6	17.2
60°-70°	1503.8	19.2
70°-80°	675.1	8.6
80°-90°	106.3	1.4
90°-100°	12.4	0.2
100°-110°	57.4	0.7
110°-120°	166.1	2.1
120°-130°	273.2	3.5
130°-140°	336.8	4.3
140°-150°	344.6	4.4
150°-160°	290.3	3.7
160°-170°	191.2	2.4
170°-180°	66.3	0.8
0°-90°	6099.2	77.8
0°-180°	7837.4	100.0

Coefficient of Utilization



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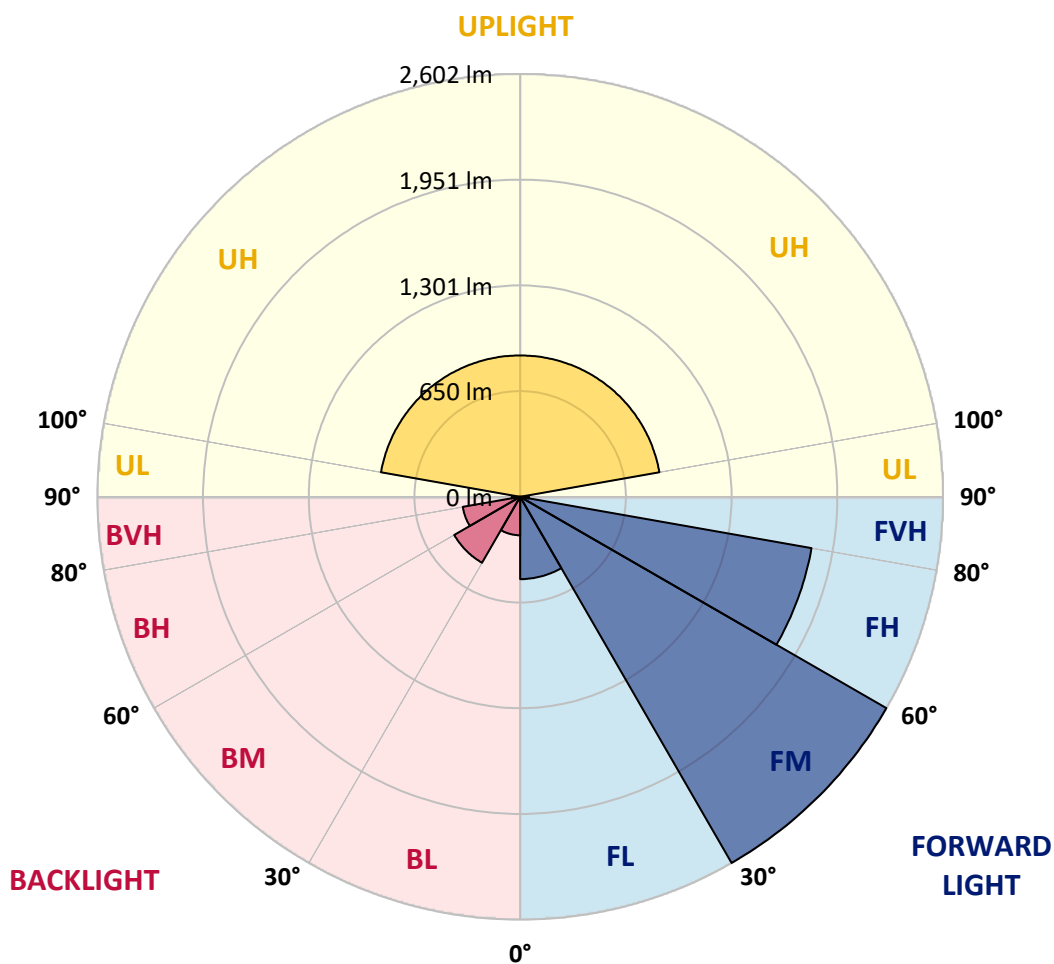
CATALOG NUMBER: IST-AF-1200-LED-E1-T2-7030-ULG

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	506.5	6.5			
FM	(30°-60°)	2601.9	33.2			
FH	(60°-80°)	1820.4	23.2			G2/5000
FVH	(80°-90°)	54.3	0.7			G1/100
BL	(0°-30°)	236.8	3.0	B1/500		
BM	(30°-60°)	468.7	6.0	B1/1000		
BH	(60°-80°)	358.5	4.6	B1/500		G1/500
BVH	(80°-90°)	52.0	0.7			G1/100
UL	(90°-100°)	12.4	0.2		U2/50	
UH	(100°-180°)	869.7	11.1		U4/1000	

BUG Rating: B1-U5-G2

Type II Medium



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	60°	61°	62°	64°
0°	848.5	848.5	848.5	848.5	848.5	848.5	848.5	848.5	848.5	848.5	848.5
2.5°	908.7	908.7	906.1	904.3	901.7	894.6	883.9	882.2	881.3	879.5	877.7
5°	975.2	968.1	969.9	965.4	955.7	943.3	923.8	914.1	908.7	907.9	904.3
7.5°	1029.2	1030.1	1027.4	1018.6	1005.3	990.2	963.7	948.6	944.2	941.5	935.3
10°	1068.2	1065.5	1063.7	1062.0	1051.3	1038.9	1005.3	986.7	983.1	976.1	969.0
12.5°	1096.5	1096.5	1096.5	1094.7	1088.5	1078.8	1052.2	1033.6	1029.2	1019.5	1013.3
15°	1127.5	1124.0	1120.4	1117.8	1118.7	1118.7	1099.2	1085.0	1077.9	1072.6	1060.2
17.5°	1193.9	1186.0	1178.0	1167.4	1150.5	1146.1	1145.2	1144.3	1134.6	1133.7	1121.3
20°	1250.6	1243.5	1236.5	1225.8	1201.9	1176.2	1189.5	1201.9	1200.1	1201.0	1194.8
22.5°	1320.6	1315.3	1301.1	1288.7	1257.7	1226.7	1228.5	1255.1	1258.6	1262.1	1263.9
25°	1416.3	1413.6	1390.6	1366.7	1331.2	1302.0	1274.5	1307.3	1314.4	1322.4	1338.3
27.5°	1512.8	1506.6	1481.8	1460.5	1416.3	1385.3	1347.2	1364.9	1375.5	1390.6	1415.4
30°	1637.7	1620.9	1612.0	1564.2	1523.4	1478.3	1445.5	1450.8	1449.0	1466.7	1504.8
32.5°	1818.4	1791.8	1747.5	1699.7	1651.9	1591.6	1564.2	1563.3	1558.9	1579.2	1600.5
35°	1915.8	1909.6	1882.1	1834.3	1782.1	1725.4	1707.7	1690.8	1693.5	1704.1	1712.1
37.5°	2021.2	2015.9	1994.6	1968.1	1928.2	1959.2	1860.9	1836.1	1824.6	1819.3	1821.9
40°	2067.3	2071.7	2083.2	2087.6	2064.6	2213.4	2019.4	1937.9	1934.4	1926.4	1918.5
42.5°	2077.0	2088.5	2111.5	2162.0	2184.2	2508.3	2150.5	2052.2	2038.0	2031.8	2032.7
45°	2112.4	2130.1	2134.6	2180.6	2285.1	2523.4	2298.4	2153.2	2142.5	2141.7	2136.3
47.5°	2198.3	2222.3	2222.3	2242.6	2341.8	2552.6	2348.9	2254.1	2247.1	2243.5	2257.7
50°	2210.7	2242.6	2306.4	2371.9	2443.7	2576.5	2406.5	2364.0	2366.6	2374.6	2416.2
52.5°	2000.8	2032.7	2201.0	2394.1	2627.9	2642.1	2493.3	2510.1	2527.8	2566.8	2643.0
55°	1715.6	1738.7	1937.9	2247.1	2635.0	2891.0	2711.2	2758.1	2795.3	2806.8	2926.4
57.5°	1350.7	1382.6	1585.4	1986.7	2460.5	2961.8	3212.5	3233.7	3192.1	3230.2	3273.6
60°	731.6	728.1	1010.6	1436.6	2093.8	2830.7	3696.1	4061.0	4069.8	4128.3	4058.3
62.5°	409.2	409.2	490.7	737.8	1347.2	2395.0	3928.1	4776.6	4887.4	4980.4	5185.0
65°	309.1	311.8	341.0	444.6	756.4	1511.9	3758.1	5021.1	5233.7	5447.1	5805.8
67.5°	256.9	256.9	278.1	331.3	473.0	686.4	2767.0	4530.4	4796.1	5051.2	5547.2
69°	238.3	239.1	255.1	291.4	395.9	446.4	1911.4	3841.3	4145.1	4498.5	5083.1
70°	229.4	226.7	241.8	271.9	358.7	352.5	1400.3	3340.0	3575.6	3892.7	4565.0
72.5°	203.7	201.1	209.0	232.1	282.5	251.5	571.3	1797.1	2152.3	2507.5	3043.3
75°	181.6	178.9	185.1	195.7	219.7	192.2	287.0	752.9	911.4	1178.0	1625.3
77.5°	160.3	155.0	160.3	167.4	172.7	143.5	194.9	348.1	426.9	524.3	740.5
80°	145.3	139.9	146.1	142.6	135.5	110.7	129.3	202.8	225.0	269.3	352.5
82.5°	103.6	102.7	139.1	143.5	108.1	80.6	92.1	130.2	145.3	153.2	186.0
85°	63.8	61.1	80.6	102.7	109.8	50.5	59.3	77.1	80.6	87.7	103.6
87.5°	32.8	33.7	43.4	53.1	71.7	30.1	35.4	45.2	45.2	45.2	51.4
90°	13.0	14.7	20.3	26.6	23.1	15.0	20.3	18.6	20.6	19.0	21.2
92.5°	4.0	4.0	5.0	6.0	6.0	6.0	7.0	7.0	7.0	7.0	7.0
95°	5.0	5.0	6.0	7.0	7.0	7.0	7.0	7.5	7.6	7.7	7.9
97.5°	7.0	7.0	8.0	8.0	9.0	9.0	12.0	11.0	10.8	10.6	10.2
100°	8.0	8.0	9.0	10.0	12.0	21.0	29.0	27.5	27.2	26.9	26.3
102.5°	11.0	11.0	13.0	18.0	27.0	40.0	50.0	48.5	48.2	47.9	47.3
105°	21.0	22.0	27.0	36.0	48.0	63.0	72.0	71.0	70.8	70.6	70.2
107.5°	41.0	42.0	49.0	58.0	73.0	88.0	95.0	94.5	94.4	94.3	94.1

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CANDELA DISTRIBUTION (continued):

	0°	5°	15°	25°	35°	45°	55°	60°	61°	62°	64°
110°	66.0	68.0	74.0	87.0	102.0	114.0	120.0	120.5	120.6	120.7	120.9
112.5°	99.0	99.0	106.0	121.0	134.0	143.0	148.0	149.0	149.2	149.4	149.8
115°	140.0	139.0	147.0	159.0	168.0	174.0	179.0	180.5	180.8	181.1	181.7
117.5°	184.0	184.0	189.0	197.0	202.0	205.0	211.0	213.0	213.4	213.8	214.6
120°	225.0	223.0	226.0	233.0	237.0	243.0	246.0	248.0	248.4	248.8	249.6
122.5°	263.0	260.0	261.0	267.0	271.0	277.0	279.0	281.0	281.4	281.8	282.6
125°	298.0	294.0	296.0	299.0	305.0	310.0	313.0	314.0	314.2	314.4	314.8
127.5°	330.0	329.0	329.0	333.0	339.0	340.0	345.0	345.5	345.6	345.7	345.9
130°	363.0	361.0	362.0	366.0	370.0	372.0	377.0	379.0	379.4	379.8	380.6
132.5°	396.0	394.0	393.0	401.0	404.0	405.0	411.0	413.5	414.0	414.5	415.5
135°	429.0	426.0	426.0	432.0	435.0	437.0	443.0	445.5	446.0	446.5	447.5
137.5°	460.0	457.0	459.0	460.0	464.0	468.0	473.0	474.0	474.2	474.4	474.8
140°	488.0	485.0	487.0	489.0	491.0	497.0	500.0	501.0	501.2	501.4	501.8
142.5°	518.0	515.0	517.0	518.0	521.0	525.0	527.0	530.0	530.6	531.2	532.4
145°	550.0	546.0	544.0	547.0	550.0	551.0	556.0	559.0	559.6	560.2	561.4
147.5°	575.0	572.0	571.0	574.0	574.0	575.0	580.0	582.5	583.0	583.5	584.5
150°	595.0	592.0	593.0	593.0	593.0	593.0	597.0	598.5	598.8	599.1	599.7
152.5°	611.0	608.0	608.0	609.0	610.0	610.0	611.0	612.5	612.8	613.1	613.7
155°	629.0	625.0	625.0	627.0	630.0	628.0	626.0	628.5	629.0	629.5	630.5
157.5°	646.0	643.0	643.0	644.0	646.0	645.0	644.0	646.0	646.4	646.8	647.6
160°	663.0	660.0	659.0	656.0	655.0	655.0	658.0	661.0	661.6	662.2	663.4
162.5°	673.0	669.0	669.0	665.0	661.0	663.0	667.0	669.0	669.4	669.8	670.6
165°	681.0	678.0	676.0	676.0	673.0	673.0	672.0	674.5	675.0	675.5	676.5
167.5°	690.0	687.0	684.0	686.0	688.0	685.0	678.0	681.0	681.6	682.2	683.4
170°	698.0	695.0	692.0	692.0	693.0	691.0	686.0	687.5	687.8	688.1	688.7
172.5°	699.0	697.0	695.0	693.0	690.0	690.0	689.0	690.5	690.8	691.1	691.7
175°	700.0	698.0	697.0	695.0	691.0	690.0	690.0	692.5	693.0	693.5	694.5
177.5°	707.0	705.0	700.0	699.0	697.0	695.0	694.0	696.5	697.0	697.5	698.5
180°	700.0	700.0	700.0	700.0	700.0	700.0	700.0	700.0	700.0	700.0	700.0

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CANDELA DISTRIBUTION (continued):

	65°	66°	67°	68°	69°	70°	71°	72°	73°	74°	75°
0°	848.5	848.5	848.5	848.5	848.5	848.5	848.5	848.5	848.5	848.5	848.5
2.5°	878.6	876.0	872.4	873.3	871.5	868.9	869.8	868.9	869.8	868.0	866.2
5°	904.3	902.5	897.2	896.3	894.6	892.8	890.1	887.5	886.6	884.8	881.3
7.5°	933.5	928.2	925.6	922.0	917.6	910.5	909.6	906.1	903.4	901.7	897.2
10°	963.7	957.5	953.9	949.5	945.1	940.6	936.2	930.0	923.8	922.0	916.7
12.5°	1008.8	1000.9	993.8	986.7	982.3	974.3	968.1	960.1	953.9	951.3	942.4
15°	1058.4	1047.8	1040.7	1035.4	1028.3	1021.2	1013.3	1006.2	996.4	988.5	980.5
17.5°	1116.9	1107.1	1101.8	1092.1	1083.2	1075.3	1069.1	1060.2	1052.2	1038.1	1031.0
20°	1193.9	1186.0	1179.8	1169.1	1159.4	1151.4	1146.1	1127.5	1116.9	1104.5	1093.0
22.5°	1265.7	1266.6	1260.4	1253.3	1247.1	1236.5	1227.6	1214.3	1201.0	1186.0	1170.0
25°	1343.6	1350.7	1351.6	1349.8	1346.3	1333.9	1329.5	1316.2	1305.5	1280.7	1273.7
27.5°	1430.4	1438.4	1448.1	1460.5	1463.2	1449.9	1456.1	1442.8	1424.2	1413.6	1390.6
30°	1514.6	1536.7	1557.1	1571.3	1580.1	1586.3	1581.9	1577.5	1565.1	1547.3	1527.0
32.5°	1622.6	1645.7	1666.0	1697.0	1713.0	1732.5	1728.9	1730.7	1726.3	1708.5	1684.6
35°	1731.6	1751.9	1778.5	1798.9	1837.9	1859.1	1876.8	1875.9	1875.9	1865.3	1842.3
37.5°	1828.1	1839.6	1861.8	1895.4	1921.1	1954.8	1983.1	1994.6	2013.2	2014.1	1989.3
40°	1929.1	1940.6	1957.4	1982.2	2010.6	2050.4	2088.5	2125.7	2143.4	2162.0	2152.3
42.5°	2038.0	2050.4	2062.8	2078.8	2119.5	2150.5	2201.9	2252.4	2288.7	2326.8	2322.3
45°	2146.1	2160.3	2178.0	2201.9	2238.2	2288.7	2338.3	2395.0	2478.2	2523.4	2554.4
47.5°	2268.3	2291.3	2324.1	2362.2	2391.4	2443.7	2506.6	2594.3	2678.4	2756.3	2805.0
50°	2452.5	2461.4	2514.5	2551.7	2607.5	2660.7	2723.6	2800.6	2909.6	2989.3	3067.2
52.5°	2669.5	2703.2	2756.3	2798.8	2843.1	2896.3	2960.9	3030.0	3138.1	3227.5	3328.5
55°	2949.4	2997.2	3043.3	3066.3	3128.3	3176.2	3228.4	3296.6	3412.6	3510.1	3628.8
57.5°	3283.3	3331.2	3353.3	3387.0	3413.5	3466.7	3537.5	3583.6	3686.3	3787.3	3913.1
60°	3968.9	3938.8	3965.3	3913.1	3905.1	3909.5	3924.6	3960.0	4017.6	4111.5	4244.3
62.5°	5206.2	5162.8	5047.7	5006.0	4925.4	4816.5	4713.8	4699.6	4669.5	4740.3	4823.6
65°	5929.0	6086.6	6103.4	6147.7	6115.8	6030.8	5910.4	5871.4	5774.0	5705.8	5701.3
67.5°	5755.4	5991.8	6139.8	6326.6	6430.3	6531.2	6557.8	6592.4	6529.5	6498.5	6507.3
69°	5272.6	5448.0	5779.3	5906.8	6070.7	6205.3	6382.4	6413.4	6474.6	6483.4	6601.2
70°	4794.4	5052.1	5241.6	5433.0	5659.7	5807.6	5887.3	6018.4	6169.9	6244.3	6371.8
72.5°	3447.2	3531.3	3666.0	3914.0	3976.8	4130.1	4286.8	4398.4	4576.5	4702.2	5002.5
75°	1860.0	1910.5	2122.2	2263.0	2300.2	2350.7	2465.8	2493.3	2559.7	2600.5	2889.2
77.5°	849.4	926.5	953.9	1031.0	987.6	1008.8	1036.3	1030.1	1048.7	1137.3	1238.2
80°	391.5	406.5	417.2	449.1	450.8	443.7	446.4	442.0	438.4	452.6	463.2
82.5°	190.4	213.5	213.5	232.9	242.7	240.0	245.3	243.6	247.1	243.6	255.1
85°	111.6	111.6	120.5	131.1	129.3	132.9	132.9	139.9	140.8	142.6	142.6
87.5°	52.3	57.6	60.2	64.7	66.4	69.1	70.9	70.9	71.7	70.0	71.7
90°	22.3	22.3	31.1	31.1	32.9	35.6	32.0	33.8	40.0	32.0	38.2
92.5°	7.0	6.9	6.8	6.7	6.6	6.5	6.4	6.3	6.2	6.1	6.0
95°	8.0	7.9	7.8	7.7	7.6	7.5	7.4	7.3	7.2	7.1	7.0
97.5°	10.0	9.9	9.8	9.7	9.6	9.5	9.4	9.3	9.2	9.1	9.0
100°	26.0	25.7	25.4	25.1	24.8	24.5	24.2	23.9	23.6	23.3	23.0
102.5°	47.0	46.5	46.0	45.5	45.0	44.5	44.0	43.5	43.0	42.5	42.0
105°	70.0	69.5	69.0	68.5	68.0	67.5	67.0	66.5	66.0	65.5	65.0
107.5°	94.0	93.6	93.2	92.8	92.4	92.0	91.6	91.2	90.8	90.4	90.0

REPORT NUMBER: P226324

CATALOG NUMBER: IST-AF-1200-LED-E1-T2-7030-ULG

CANDELA DISTRIBUTION (continued):

	65°	66°	67°	68°	69°	70°	71°	72°	73°	74°	75°
110°	121.0	120.8	120.6	120.4	120.2	120.0	119.8	119.6	119.4	119.2	119.0
112.5°	150.0	149.9	149.8	149.7	149.6	149.5	149.4	149.3	149.2	149.1	149.0
115°	182.0	181.7	181.4	181.1	180.8	180.5	180.2	179.9	179.6	179.3	179.0
117.5°	215.0	214.5	214.0	213.5	213.0	212.5	212.0	211.5	211.0	210.5	210.0
120°	250.0	249.5	249.0	248.5	248.0	247.5	247.0	246.5	246.0	245.5	245.0
122.5°	283.0	282.5	282.0	281.5	281.0	280.5	280.0	279.5	279.0	278.5	278.0
125°	315.0	314.5	314.0	313.5	313.0	312.5	312.0	311.5	311.0	310.5	310.0
127.5°	346.0	346.0	346.0	346.0	346.0	346.0	346.0	346.0	346.0	346.0	346.0
130°	381.0	381.0	381.0	381.0	381.0	381.0	381.0	381.0	381.0	381.0	381.0
132.5°	416.0	415.8	415.6	415.4	415.2	415.0	414.8	414.6	414.4	414.2	414.0
135°	448.0	447.9	447.8	447.7	447.6	447.5	447.4	447.3	447.2	447.1	447.0
137.5°	475.0	475.1	475.2	475.3	475.4	475.5	475.6	475.7	475.8	475.9	476.0
140°	502.0	502.2	502.4	502.6	502.8	503.0	503.2	503.4	503.6	503.8	504.0
142.5°	533.0	533.0	533.0	533.0	533.0	533.0	533.0	533.0	533.0	533.0	533.0
145°	562.0	561.9	561.8	561.7	561.6	561.5	561.4	561.3	561.2	561.1	561.0
147.5°	585.0	585.1	585.2	585.3	585.4	585.5	585.6	585.7	585.8	585.9	586.0
150°	600.0	600.3	600.6	600.9	601.2	601.5	601.8	602.1	602.4	602.7	603.0
152.5°	614.0	614.4	614.8	615.2	615.6	616.0	616.4	616.8	617.2	617.6	618.0
155°	631.0	631.5	632.0	632.5	633.0	633.5	634.0	634.5	635.0	635.5	636.0
157.5°	648.0	648.2	648.4	648.6	648.8	649.0	649.2	649.4	649.6	649.8	650.0
160°	664.0	663.7	663.4	663.1	662.8	662.5	662.2	661.9	661.6	661.3	661.0
162.5°	671.0	670.9	670.8	670.7	670.6	670.5	670.4	670.3	670.2	670.1	670.0
165°	677.0	677.3	677.6	677.9	678.2	678.5	678.8	679.1	679.4	679.7	680.0
167.5°	684.0	684.4	684.8	685.2	685.6	686.0	686.4	686.8	687.2	687.6	688.0
170°	689.0	689.5	690.0	690.5	691.0	691.5	692.0	692.5	693.0	693.5	694.0
172.5°	692.0	692.2	692.4	692.6	692.8	693.0	693.2	693.4	693.6	693.8	694.0
175°	695.0	695.1	695.2	695.3	695.4	695.5	695.6	695.7	695.8	695.9	696.0
177.5°	699.0	699.2	699.4	699.6	699.8	700.0	700.2	700.4	700.6	700.8	701.0
180°	700.0	700.0	700.0	700.0	700.0	700.0	700.0	700.0	700.0	700.0	700.0

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CATALOG NUMBER: IST-AF-1200-LED-E1-T2-7030-ULG

CANDELA DISTRIBUTION (continued):

	76°	77°	78°	79°	80°	81°	82°	83°	84°	85°	86°
0°	848.5	848.5	848.5	848.5	848.5	848.5	848.5	848.5	848.5	848.5	848.5
2.5°	864.5	866.2	865.3	861.8	860.9	860.9	859.1	858.3	856.5	855.6	857.4
5°	880.4	880.4	877.7	874.2	870.7	869.8	868.9	864.5	862.7	860.9	859.1
7.5°	895.5	893.7	890.1	883.9	880.4	879.5	876.0	871.5	867.1	863.6	861.8
10°	911.4	909.6	902.5	898.1	891.0	890.1	883.9	878.6	874.2	869.8	866.2
12.5°	934.4	932.7	924.7	914.1	908.7	905.2	897.2	891.0	884.8	879.5	873.3
15°	969.9	962.8	957.5	946.8	938.9	931.8	922.0	913.2	904.3	895.5	890.1
17.5°	1019.5	1009.7	995.5	989.3	978.7	967.2	953.9	947.7	936.2	925.6	914.9
20°	1084.1	1074.4	1052.2	1044.3	1029.2	1012.4	1001.7	988.5	978.7	961.9	950.4
22.5°	1155.9	1147.0	1125.7	1104.5	1090.3	1077.0	1060.2	1043.4	1024.8	1008.8	996.4
25°	1248.9	1235.6	1217.0	1195.7	1174.5	1155.9	1132.8	1108.9	1093.0	1070.8	1053.1
27.5°	1375.5	1352.5	1321.5	1298.5	1281.6	1253.3	1224.9	1203.7	1178.9	1149.7	1130.2
30°	1512.8	1487.1	1464.1	1437.5	1409.2	1381.7	1342.7	1311.7	1285.2	1254.2	1222.3
32.5°	1665.1	1643.0	1610.2	1575.7	1544.7	1510.1	1481.8	1449.0	1403.0	1370.2	1336.5
35°	1818.4	1792.7	1759.0	1729.8	1694.4	1658.9	1627.1	1583.7	1542.0	1495.1	1448.1
37.5°	1966.3	1944.1	1906.9	1862.7	1831.7	1793.6	1760.8	1714.7	1665.1	1612.9	1577.5
40°	2131.0	2095.6	2069.9	2018.5	1986.7	1944.1	1897.2	1861.8	1813.9	1757.3	1706.8
42.5°	2319.7	2294.9	2267.4	2225.8	2192.1	2141.7	2082.3	2037.1	1992.9	1925.5	1855.6
45°	2558.8	2542.9	2497.7	2464.1	2418.9	2365.7	2314.4	2259.5	2189.5	2111.5	2047.8
47.5°	2845.8	2833.4	2792.6	2744.8	2685.5	2613.7	2565.9	2490.6	2431.3	2333.9	2257.7
50°	3106.2	3112.4	3090.2	3016.7	2963.6	2891.8	2816.6	2751.0	2659.8	2558.8	2461.4
52.5°	3417.1	3410.9	3355.1	3314.3	3251.4	3164.6	3082.3	2998.1	2898.0	2793.5	2672.2
55°	3714.7	3733.3	3694.3	3636.7	3560.6	3439.2	3356.0	3247.0	3141.6	3026.5	2886.5
57.5°	4003.4	4062.8	4032.6	3964.4	3886.5	3798.8	3689.0	3566.8	3457.8	3307.2	3149.6
60°	4363.0	4441.8	4454.2	4410.0	4324.9	4223.1	4078.7	3983.0	3833.4	3694.3	3573.0
62.5°	4916.6	5095.5	5084.9	5106.1	5045.9	4983.0	4813.8	4711.1	4516.2	4416.2	4247.0
65°	5841.3	5973.2	6131.8	6126.5	6084.8	5934.3	5758.9	5587.1	5458.6	5261.1	5084.9
67.5°	6617.2	6726.1	6820.0	6771.3	6675.6	6506.4	6301.0	6061.8	5866.1	5648.2	5417.0
69°	6689.8	6822.6	6877.6	6817.3	6645.5	6425.0	6223.9	6001.6	5732.3	5545.4	5263.8
70°	6494.9	6626.0	6736.7	6581.7	6424.1	6208.8	5989.2	5758.0	5517.1	5316.0	5031.7
72.5°	5159.3	5307.2	5292.1	5275.3	5149.5	4934.3	4732.4	4608.4	4439.2	4196.5	3991.0
75°	2999.9	3068.1	2948.5	3074.3	2923.7	2706.7	2735.1	2595.1	2471.1	2331.2	2223.1
77.5°	1178.0	1238.2	1175.3	1155.0	1087.7	1072.6	960.1	973.4	917.6	807.8	757.3
80°	446.4	454.4	443.7	421.6	417.2	391.5	384.4	359.6	348.1	311.8	298.5
82.5°	240.0	244.5	237.4	230.3	225.0	209.9	200.2	181.6	170.9	159.4	158.5
85°	138.2	134.6	131.1	127.5	119.6	110.7	103.6	96.5	88.6	82.4	76.2
87.5°	72.6	73.5	74.4	70.9	65.5	58.5	54.0	51.4	45.2	42.5	39.9
90°	32.7	26.3	28.8	33.9	31.9	27.3	26.2	23.3	20.5	20.3	17.6
92.5°	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
95°	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
97.5°	8.9	8.8	8.7	8.6	8.5	8.4	8.3	8.2	8.1	8.0	8.0
100°	22.6	22.2	21.8	21.4	21.0	20.6	20.2	19.8	19.4	19.0	19.0
102.5°	41.7	41.4	41.1	40.8	40.5	40.2	39.9	39.6	39.3	39.0	38.8
105°	64.6	64.2	63.8	63.4	63.0	62.6	62.2	61.8	61.4	61.0	61.0
107.5°	89.7	89.4	89.1	88.8	88.5	88.2	87.9	87.6	87.3	87.0	86.8

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CATALOG NUMBER: IST-AF-1200-LED-E1-T2-7030-ULG

REPORT N

CATALOG

CANDELA DISTRIBUTION (continued):

CANDELA

	76°	77°	78°	79°	80°	81°	82°	83°	84°	85°	86°	
110°	118.7	118.4	118.1	117.8	117.5	117.2	116.9	116.6	116.3	116.0	116.2	0°
112.5°	148.8	148.6	148.4	148.2	148.0	147.8	147.6	147.4	147.2	147.0	147.0	2.5°
115°	178.8	178.6	178.4	178.2	178.0	177.8	177.6	177.4	177.2	177.0	177.2	5°
117.5°	209.8	209.6	209.4	209.2	209.0	208.8	208.6	208.4	208.2	208.0	208.2	7.5°
120°	244.8	244.6	244.4	244.2	244.0	243.8	243.6	243.4	243.2	243.0	243.0	10°
122.5°	277.8	277.6	277.4	277.2	277.0	276.8	276.6	276.4	276.2	276.0	276.2	12.5°
125°	310.0	310.0	310.0	310.0	310.0	310.0	310.0	310.0	310.0	310.0	310.0	15°
127.5°	345.9	345.8	345.7	345.6	345.5	345.4	345.3	345.2	345.1	345.0	345.4	17.5°
130°	380.8	380.6	380.4	380.2	380.0	379.8	379.6	379.4	379.2	379.0	379.2	20°
132.5°	414.0	414.0	414.0	414.0	414.0	414.0	414.0	414.0	414.0	414.0	414.2	22.5°
135°	447.3	447.6	447.9	448.2	448.5	448.8	449.1	449.4	449.7	450.0	450.2	25°
137.5°	476.5	477.0	477.5	478.0	478.5	479.0	479.5	480.0	480.5	481.0	481.2	27.5°
140°	504.5	505.0	505.5	506.0	506.5	507.0	507.5	508.0	508.5	509.0	509.4	30°
142.5°	533.1	533.2	533.3	533.4	533.5	533.6	533.7	533.8	533.9	534.0	534.4	32.5°
145°	560.7	560.4	560.1	559.8	559.5	559.2	558.9	558.6	558.3	558.0	558.4	35°
147.5°	585.7	585.4	585.1	584.8	584.5	584.2	583.9	583.6	583.3	583.0	583.4	37.5°
150°	603.3	603.6	603.9	604.2	604.5	604.8	605.1	605.4	605.7	606.0	606.8	40°
152.5°	618.5	619.0	619.5	620.0	620.5	621.0	621.5	622.0	622.5	623.0	624.0	42.5°
155°	636.2	636.4	636.6	636.8	637.0	637.2	637.4	637.6	637.8	638.0	638.6	45°
157.5°	650.0	650.0	650.0	650.0	650.0	650.0	650.0	650.0	650.0	650.0	651.0	47.5°
160°	660.9	660.8	660.7	660.6	660.5	660.4	660.3	660.2	660.1	660.0	661.2	50°
162.5°	669.8	669.6	669.4	669.2	669.0	668.8	668.6	668.4	668.2	668.0	669.2	52.5°
165°	679.8	679.6	679.4	679.2	679.0	678.8	678.6	678.4	678.2	678.0	678.8	55°
167.5°	688.0	688.0	688.0	688.0	688.0	688.0	688.0	688.0	688.0	688.0	689.2	57.5°
170°	694.2	694.4	694.6	694.8	695.0	695.2	695.4	695.6	695.8	696.0	697.0	60°
172.5°	694.2	694.4	694.6	694.8	695.0	695.2	695.4	695.6	695.8	696.0	697.0	62.5°
175°	695.8	695.6	695.4	695.2	695.0	694.8	694.6	694.4	694.2	694.0	695.0	65°
177.5°	700.7	700.4	700.1	699.8	699.5	699.2	698.9	698.6	698.3	698.0	698.8	67.5°
180°	700.0	700.0	700.0	700.0	700.0	700.0	700.0	700.0	700.0	700.0	700.0	69°
												70°
												72.5°
												75°
												77.5°
												80°
												82.5°
												85°
												87.5°
												90°
												92.5°
												95°
												97.5°
												100°
												102.5°
												105°
												107.5°

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REPORT NUMBER: P

CATALOG NUMBER:

DISTRIBUTION (continued):

CANDELA DISTRIBUTION

87°	88°	89°	90°	95°	105°	115°	125°	135°	145°	155°	110°	87°
848.5	848.5	848.5	848.5	848.5	848.5	848.5	848.5	848.5	848.5	848.5	110°	116.4
854.7	854.7	852.1	850.3	844.1	833.5	822.8	813.1	799.8	794.5	787.4	112.5°	147.0
857.4	855.6	852.9	849.4	837.0	812.2	786.5	759.1	730.7	705.0	674.9	115°	177.4
859.1	855.6	852.1	847.6	829.9	791.8	740.5	686.4	635.9	597.9	581.9	117.5°	208.4
860.0	857.4	852.9	846.7	821.9	765.3	682.9	604.9	560.7	545.6	542.9	120°	243.0
869.8	865.3	858.3	851.2	818.4	736.0	618.2	543.8	526.1	533.2	545.6	122.5°	276.4
882.2	876.9	868.0	860.9	816.6	697.9	555.3	509.3	515.5	535.0	555.3	125°	310.0
904.3	895.5	885.7	878.6	820.2	651.0	504.9	491.6	510.2	535.0	562.4	127.5°	345.8
937.1	924.7	913.2	900.8	825.5	592.5	474.7	480.1	502.2	528.8	558.9	130°	379.4
977.8	963.7	947.7	929.1	831.7	542.1	457.9	467.7	488.0	511.1	535.9	132.5°	414.4
1032.7	1013.3	992.9	969.9	840.5	487.1	442.9	453.5	465.9	479.2	491.6	135°	450.4
1101.8	1075.3	1053.1	1022.1	849.4	449.9	430.5	434.0	436.7	438.4	437.5	137.5°	481.4
1193.9	1153.2	1127.5	1089.4	859.1	430.5	416.3	411.9	407.4	401.2	394.1	140°	509.8
1291.4	1257.7	1217.0	1168.3	865.3	417.2	403.0	388.8	376.4	370.2	370.2	142.5°	534.8
1404.7	1363.1	1311.7	1250.6	857.4	403.0	385.3	366.7	359.6	367.6	364.9	145°	558.8
1518.1	1460.5	1403.9	1333.9	837.9	387.1	365.8	356.1	361.4	350.7	344.5	147.5°	583.8
1643.0	1579.2	1500.4	1418.9	809.5	370.2	356.1	361.4	342.8	330.4	335.7	150°	607.6
1782.9	1707.7	1622.6	1511.9	790.9	359.6	341.0	345.4	329.5	320.6	318.0	152.5°	625.0
1973.4	1866.2	1762.6	1632.4	805.1	342.8	311.8	329.5	320.6	312.7	305.6	155°	639.2
2160.3	2046.0	1923.8	1770.5	829.9	330.4	288.7	312.7	318.9	305.6	292.3	157.5°	652.0
2348.0	2226.7	2084.1	1913.1	860.0	322.4	271.0	292.3	314.4	298.5	287.9	160°	662.4
2545.5	2392.3	2246.2	2061.9	899.0	314.4	256.9	274.6	306.5	298.5	282.5	162.5°	670.4
2752.8	2572.1	2426.0	2226.7	967.2	302.9	239.1	260.4	298.5	297.6	277.2	165°	679.6
2993.7	2832.5	2644.7	2441.9	1062.0	289.6	223.2	249.8	291.4	294.1	271.0	167.5°	690.4
3403.8	3237.3	3010.5	2817.4	1249.7	271.9	213.5	239.1	279.9	287.0	265.7	170°	698.0
4069.0	3842.2	3634.1	3453.4	1571.3	247.1	206.4	227.6	267.5	278.1	261.3	172.5°	698.0
4831.6	4610.1	4358.6	4054.8	1750.2	224.1	196.6	213.5	255.1	269.3	256.9	175°	696.0
5155.7	4866.1	4560.5	4200.0	1579.2	205.5	186.0	200.2	240.9	256.9	250.7	177.5°	699.6
5006.9	4713.8	4358.6	4005.2	1373.7	195.7	179.8	193.1	230.3	248.9	244.5	180°	700.0
4748.3	4453.4	4136.3	3712.0	1226.7	190.4	175.4	188.7	225.9	244.5	240.9		
3755.4	3492.4	3200.1	2876.8	836.1	172.7	161.2	175.4	208.1	228.5	227.6		
1990.2	1913.1	1697.0	1507.5	433.1	154.1	146.1	160.3	192.2	213.5	213.5		
716.5	650.1	621.8	516.4	230.3	134.6	131.1	141.7	174.5	194.9	194.0		
271.0	263.9	236.5	221.4	146.1	109.8	110.7	121.3	153.2	172.7	171.8		
153.2	139.1	134.6	130.2	93.0	86.8	91.2	101.9	131.1	147.9	150.6		
73.5	68.2	66.4	62.0	61.1	66.4	71.7	80.6	104.5	124.9	122.2		
35.4	33.7	32.8	31.9	43.4	42.5	52.3	55.8	70.0	99.2	89.5		
18.5	18.5	17.6	15.9	19.4	23.2	25.8	30.9	36.2	65.6	54.9		
6.0	6.0	6.0	6.0	6.0	6.0	7.0	7.0	6.0	6.0	6.0		
7.0	7.0	7.0	7.0	7.0	7.0	8.0	7.0	7.0	7.0	7.0		
8.0	8.0	8.0	8.0	8.0	9.0	10.0	12.0	9.0	9.0	8.0		
19.0	19.0	19.0	19.0	19.0	23.0	26.0	29.0	21.0	12.0	10.0		
38.6	38.4	38.2	38.0	39.0	42.0	47.0	50.0	40.0	27.0	18.0		
61.0	61.0	61.0	61.0	61.0	65.0	70.0	72.0	63.0	48.0	36.0		
86.6	86.4	86.2	86.0	87.0	90.0	94.0	95.0	88.0	73.0	58.0		

'226324
IST-AF-1200-LED-E1-T2-7030-ULG

REPORT NUMBER: P226324
CATALOG NUMBER: IST-AF-12

TION (continued):

CANDELA DISTRIBUTION (con

88°	89°	90°	95°	105°	115°	125°	135°	145°	155°		165°	175°
116.6	116.8	117.0	116.0	119.0	121.0	120.0	114.0	102.0	87.0	0°	848.5	848.5
147.0	147.0	147.0	147.0	149.0	150.0	148.0	143.0	134.0	121.0	2.5°	781.2	768.8
177.6	177.8	178.0	177.0	179.0	182.0	179.0	174.0	168.0	159.0	5°	652.8	651.0
208.6	208.8	209.0	208.0	210.0	215.0	211.0	205.0	202.0	197.0	7.5°	572.2	560.7
243.0	243.0	243.0	243.0	245.0	250.0	246.0	243.0	237.0	233.0	10°	545.6	544.7
276.6	276.8	277.0	276.0	278.0	283.0	279.0	277.0	271.0	267.0	12.5°	557.1	559.8
310.0	310.0	310.0	310.0	310.0	315.0	313.0	310.0	305.0	299.0	15°	572.2	577.5
346.2	346.6	347.0	345.0	346.0	346.0	345.0	340.0	339.0	333.0	17.5°	581.9	591.7
379.6	379.8	380.0	379.0	381.0	381.0	377.0	372.0	370.0	366.0	20°	579.3	590.8
414.6	414.8	415.0	414.0	414.0	416.0	411.0	405.0	404.0	401.0	22.5°	550.0	555.3
450.6	450.8	451.0	450.0	447.0	448.0	443.0	437.0	435.0	432.0	25°	497.8	499.5
481.6	481.8	482.0	481.0	476.0	475.0	473.0	468.0	464.0	460.0	27.5°	434.9	433.1
510.2	510.6	511.0	509.0	504.0	502.0	500.0	497.0	491.0	489.0	30°	390.6	379.1
535.2	535.6	536.0	534.0	533.0	533.0	527.0	525.0	521.0	518.0	32.5°	370.2	363.1
559.2	559.6	560.0	558.0	561.0	562.0	556.0	551.0	550.0	547.0	35°	356.1	344.5
584.2	584.6	585.0	583.0	586.0	585.0	580.0	575.0	574.0	574.0	37.5°	369.3	368.5
608.4	609.2	610.0	606.0	603.0	600.0	597.0	593.0	593.0	593.0	40°	381.7	380.0
626.0	627.0	628.0	623.0	618.0	614.0	611.0	610.0	610.0	609.0	42.5°	360.5	344.5
639.8	640.4	641.0	638.0	636.0	631.0	626.0	628.0	630.0	627.0	45°	321.5	302.9
653.0	654.0	655.0	650.0	650.0	648.0	644.0	645.0	646.0	644.0	47.5°	294.9	284.3
663.6	664.8	666.0	660.0	661.0	664.0	658.0	655.0	655.0	656.0	50°	282.5	279.0
671.6	672.8	674.0	668.0	670.0	671.0	667.0	663.0	661.0	665.0	52.5°	279.0	287.9
680.4	681.2	682.0	678.0	680.0	677.0	672.0	673.0	673.0	676.0	55°	277.2	287.0
691.6	692.8	694.0	688.0	688.0	684.0	678.0	685.0	688.0	686.0	57.5°	264.8	281.7
699.0	700.0	701.0	696.0	694.0	689.0	686.0	691.0	693.0	692.0	60°	256.0	276.3
699.0	700.0	701.0	696.0	694.0	692.0	689.0	690.0	690.0	693.0	62.5°	250.7	273.7
697.0	698.0	699.0	694.0	696.0	695.0	690.0	690.0	691.0	695.0	65°	246.2	275.5
700.4	701.2	702.0	698.0	701.0	699.0	694.0	695.0	697.0	699.0	67.5°	239.1	280.8
700.0	700.0	700.0	700.0	700.0	700.0	700.0	700.0	700.0	700.0	69°	235.6	279.9
										70°	232.1	277.2
										72.5°	219.7	256.0
										75°	204.6	225.9
										77.5°	185.1	194.0
										80°	163.9	169.2
										82.5°	142.6	163.0
										85°	111.6	138.2
										87.5°	82.4	76.2
										90°	53.9	39.5
										92.5°	5.0	4.0
										95°	6.0	5.0
										97.5°	8.0	7.0
										100°	9.0	8.0
										102.5°	13.0	11.0
										105°	27.0	22.0
										107.5°	49.0	42.0

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tinued):

180°
848.5
771.5
645.7
561.5
547.4
558.0
579.3
595.2
593.4
559.8
501.3
440.2
387.9
371.1
349.9
372.9
383.5
348.1
302.9
282.5
277.2
290.5
286.1
282.5
277.2
272.8
271.9
273.7
270.1
265.7
239.1
215.2
194.0
170.9
144.4
108.1
82.4
34.2
4.0
5.0
7.0
8.0
11.0
21.0
41.0

CANDELA DISTRIBUTION (continued):

	165°	175°	180°
110°	74.0	68.0	66.0
112.5°	106.0	99.0	99.0
115°	147.0	139.0	140.0
117.5°	189.0	184.0	184.0
120°	226.0	223.0	225.0
122.5°	261.0	260.0	263.0
125°	296.0	294.0	298.0
127.5°	329.0	329.0	330.0
130°	362.0	361.0	363.0
132.5°	393.0	394.0	396.0
135°	426.0	426.0	429.0
137.5°	459.0	457.0	460.0
140°	487.0	485.0	488.0
142.5°	517.0	515.0	518.0
145°	544.0	546.0	550.0
147.5°	571.0	572.0	575.0
150°	593.0	592.0	595.0
152.5°	608.0	608.0	611.0
155°	625.0	625.0	629.0
157.5°	643.0	643.0	646.0
160°	659.0	660.0	663.0
162.5°	669.0	669.0	673.0
165°	676.0	678.0	681.0
167.5°	684.0	687.0	690.0
170°	692.0	695.0	698.0
172.5°	695.0	697.0	699.0
175°	697.0	698.0	700.0
177.5°	700.0	705.0	707.0
180°	700.0	700.0	700.0

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