

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: INVUE

Report Number: P401678

Luminaire Tested: **ENT-SA1E-740-U-SLL-HSS**

Issue Date: 5/20/2020

Test Information

Test Method: LM-79-08
Report Number: P401678
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2004-754-8)
Test Lab: INNOVATION CENTER
Issue Date: 5/20/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: ENT-SA1E-740-U-SLL-HSS
Description: ENTRI LED LUMINAIRE
(1) 70 CRI, 4000K, 1050mA LIGHTSQUARE WITH 16 LEDS AND SPILL LIGHT ELIMINATOR LEFT OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5289 lumens
Efficiency: N/A
Efficacy: 92.5 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type III - Short - Semi-Cutoff
BUG Rating: B1 - U0 - G1

Input Watts (W): 57.2
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: 25 FT

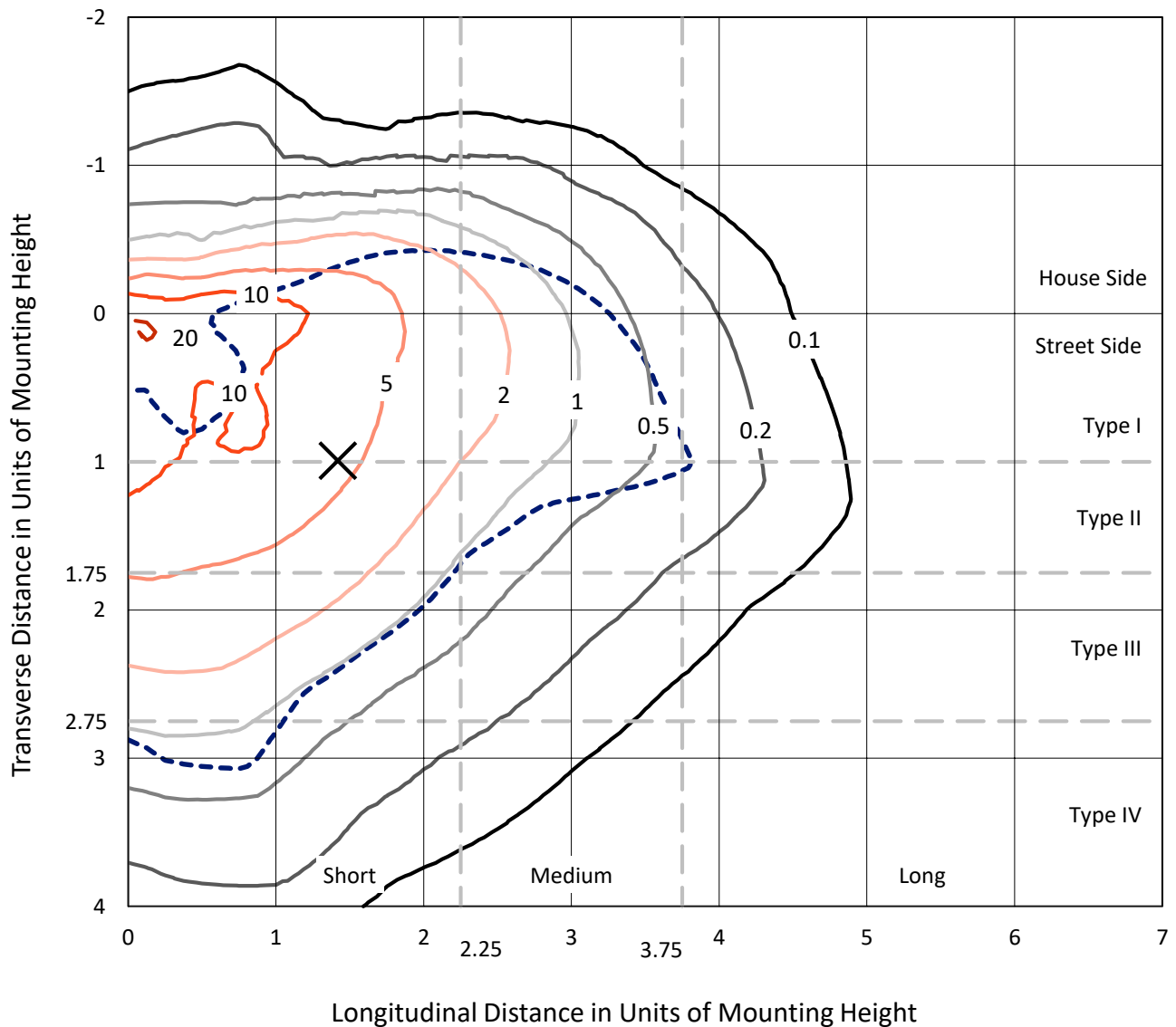


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Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd
 - - - 1/2 Max cd

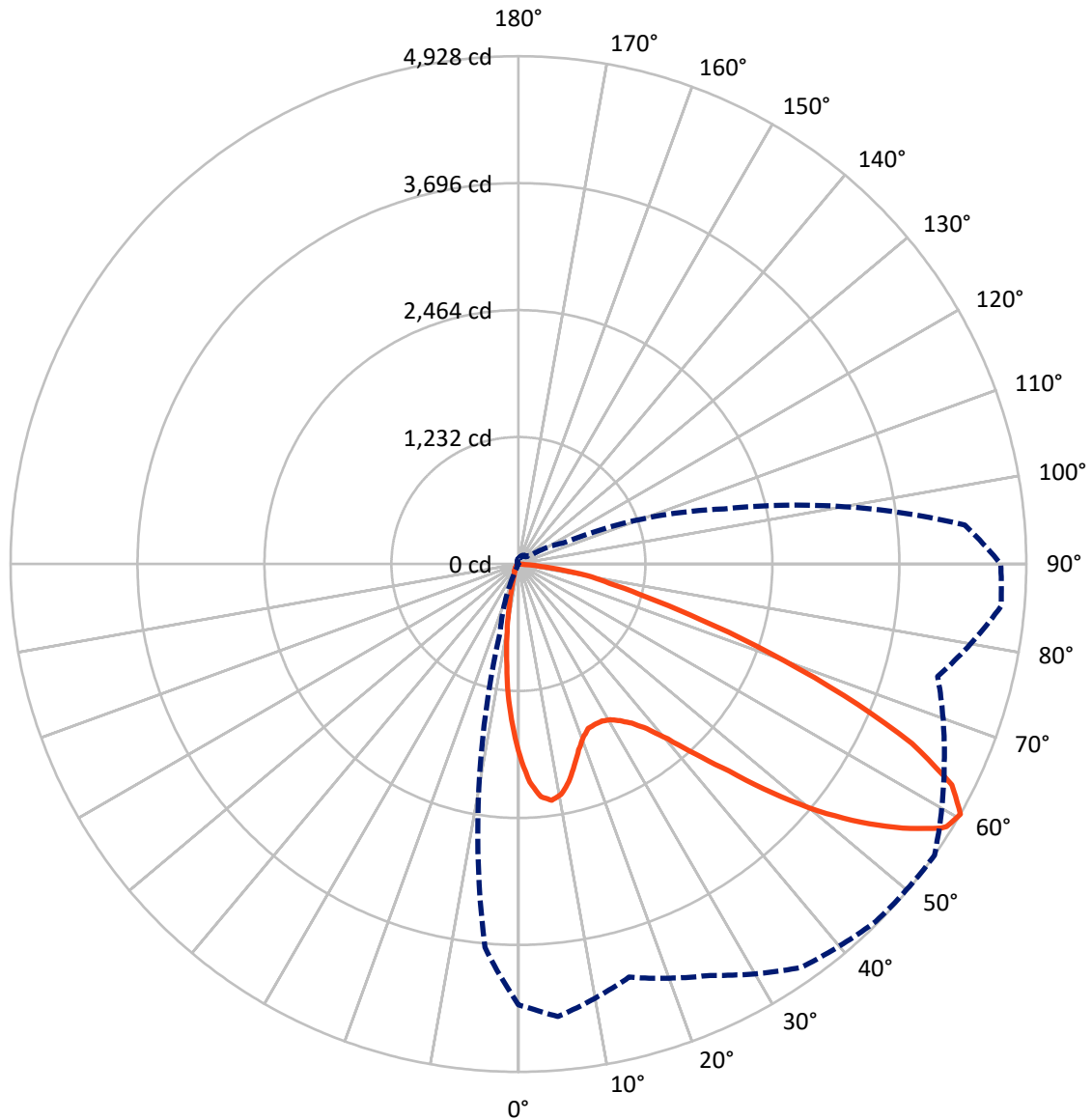


Based on 10 foot mounting height. Maximum calculated value = 22.1 fc
 Type III - Short - Semi-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 55-Deg Lateral - - - Horizontal Cone Through 60-Deg Vertical

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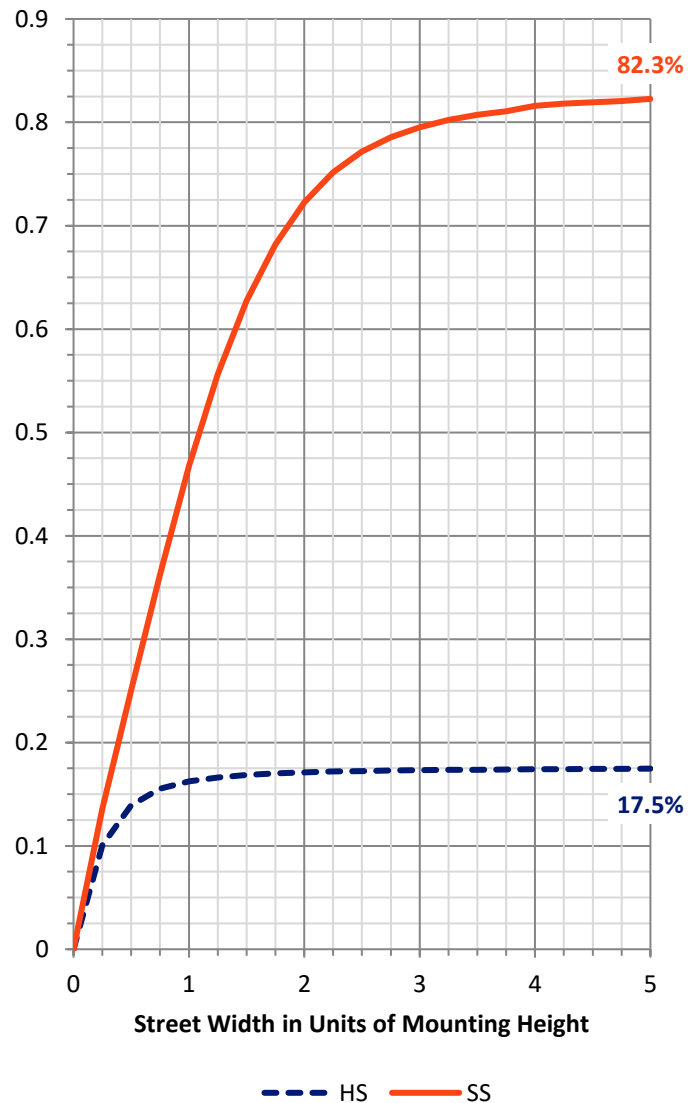
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	936.6	0.0	936.6
	% Fixture	17.7	0.0	17.7
Street Side	Lumens	4352.4	0.0	4352.4
	% Fixture	82.3	0.0	82.3
Total	Lumens	5289.0	0.0	5289.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	140.5	2.7
10°-20°	267.3	5.1
20°-30°	381.3	7.2
30°-40°	559.3	10.6
40°-50°	824.7	15.6
50°-60°	1221.8	23.1
60°-70°	1302.0	24.6
70°-80°	540.1	10.2
80°-90°	51.9	1.0
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°	5289.0	100.0
0°-180°	5289.0	100.0



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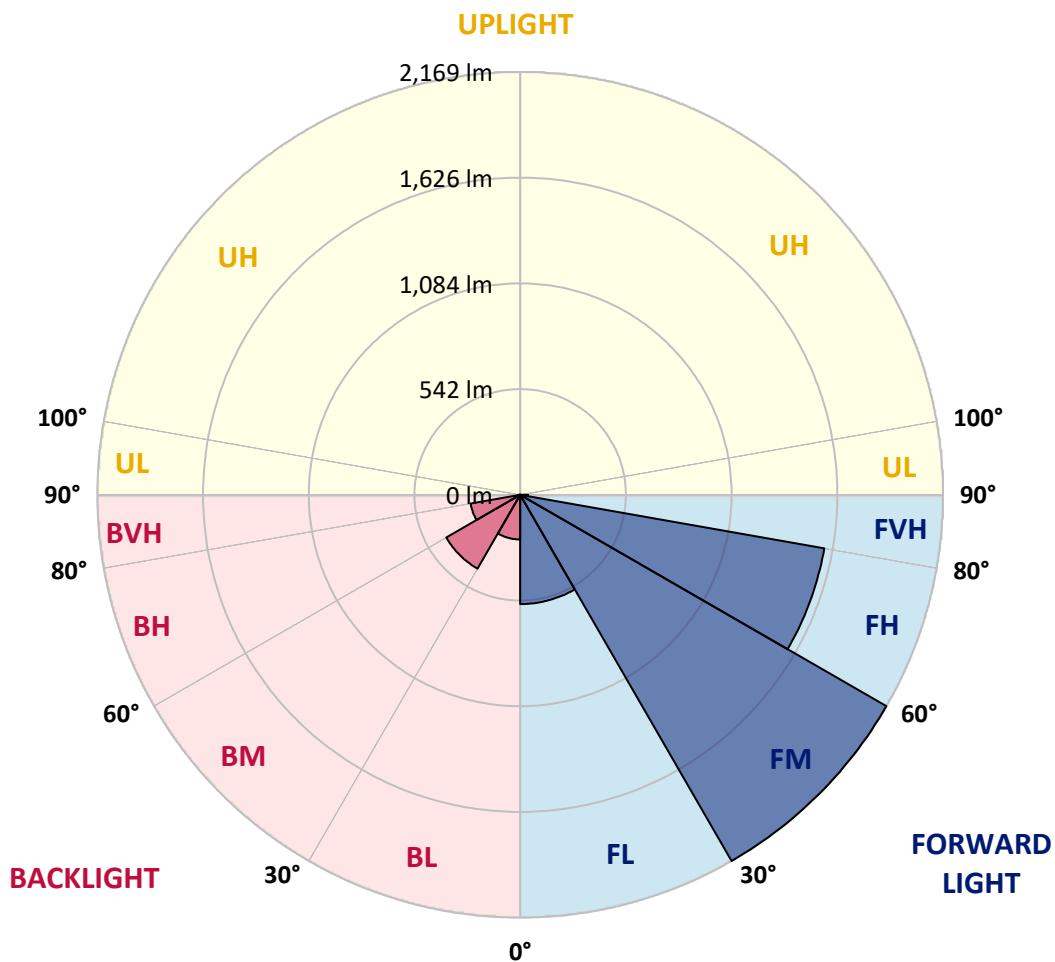
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	560.2	10.6			
FM	(30°-60°)	2168.5	41.0			
FH	(60°-80°)	1583.9	29.9			G1/1800
FVH	(80°-90°)	39.8	0.8			G1/100
BL	(0°-30°)	229.0	4.3	B1/500		
BM	(30°-60°)	437.3	8.3	B1/1000		
BH	(60°-80°)	258.2	4.9	B1/500		G1/500
BVH	(80°-90°)	12.2	0.2			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





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CANDELA DISTRIBUTION (FULL):

	0°	1°	5°	15°	25°	35°	45°	55°	65°	75°	85°
0°	1867.8	1867.8	1867.8	1867.8	1867.8	1867.8	1867.8	1867.8	1867.8	1867.8	1867.8
2.5°	1950.8	1947.8	1975.8	2033.8	2069.8	2091.8	2095.8	2118.8	2095.8	2083.8	2040.8
5°	1893.8	1892.8	1946.8	2073.8	2177.8	2255.8	2293.8	2267.8	2227.8	2148.8	2052.8
7.5°	1735.8	1735.8	1837.8	2007.8	2181.8	2316.8	2362.8	2314.8	2219.8	2060.8	1888.8
10°	1606.9	1618.9	1716.8	1919.8	2112.8	2260.8	2311.8	2274.8	2150.8	1944.8	1742.8
12.5°	1529.9	1536.9	1645.9	1849.8	2029.8	2149.8	2180.8	2169.8	2079.8	1855.8	1641.9
15°	1536.9	1546.9	1671.9	1838.8	1955.8	2003.8	2014.8	2028.8	1991.8	1819.8	1608.9
17.5°	1646.9	1653.9	1779.8	1887.8	1882.8	1867.8	1871.8	1894.8	1938.8	1849.8	1675.9
20°	1822.8	1840.8	1967.8	1969.8	1844.8	1774.8	1756.8	1794.8	1913.8	1928.8	1818.8
22.5°	2048.8	2055.8	2184.8	2107.8	1848.8	1710.8	1689.9	1732.8	1921.8	2056.8	2016.8
25°	2310.8	2335.8	2405.8	2286.8	1906.8	1701.8	1687.9	1723.8	1950.8	2192.8	2220.8
27.5°	2487.8	2507.8	2574.8	2408.8	1958.8	1706.8	1680.9	1724.8	1985.8	2320.8	2438.8
30°	2645.8	2659.8	2684.8	2472.8	2017.8	1731.8	1689.9	1752.8	2004.8	2347.8	2579.8
32.5°	2794.8	2811.8	2796.8	2549.8	2082.8	1778.8	1706.8	1811.8	2045.8	2401.8	2702.8
35°	2986.7	2987.7	2936.7	2626.8	2156.8	1834.8	1756.8	1895.8	2125.8	2485.8	2834.7
37.5°	3214.7	3216.7	3087.7	2705.8	2240.8	1928.8	1874.8	2025.8	2241.8	2582.8	3023.7
40°	3413.7	3421.7	3250.7	2796.8	2343.8	2111.8	2106.8	2231.8	2390.8	2711.8	3226.7
42.5°	3586.7	3609.7	3400.7	2872.7	2489.8	2392.8	2404.8	2518.8	2571.8	2819.8	3352.7
45°	3761.7	3760.7	3523.7	2948.7	2733.8	2754.8	2868.7	2863.7	2776.8	2877.7	3451.7
47.5°	3870.7	3865.7	3598.7	3072.7	3062.7	3263.7	3384.7	3318.7	3003.7	2939.7	3575.7
50°	3912.7	3910.7	3657.7	3230.7	3397.7	3724.7	3897.7	3765.7	3281.7	3043.7	3723.7
52.5°	4031.6	4021.6	3793.7	3410.7	3700.7	4168.6	4311.6	4164.6	3558.7	3230.7	3895.7
55°	4217.6	4220.6	4027.6	3621.7	3943.7	4481.6	4656.6	4525.6	3841.7	3487.7	4131.6
57.5°	4342.6	4351.6	4286.6	3856.7	4203.6	4700.6	4870.6	4833.6	4218.6	3794.7	4408.6
58°	4354.6	4361.6	4327.6	3901.7	4242.6	4725.6	4899.6	4873.6	4301.6	3892.7	4474.6
60°	4277.6	4298.6	4407.6	4149.6	4403.6	4778.6	4904.6	4927.6	4558.6	4210.6	4700.6
62.5°	4068.6	4075.6	4273.6	4427.6	4513.6	4647.6	4659.6	4719.6	4664.6	4583.6	4902.6
65°	3812.7	3812.7	4026.6	4440.6	4228.6	4206.6	4136.6	4196.6	4355.6	4817.6	4888.6
67.5°	3367.7	3370.7	3643.7	3955.7	3505.7	3429.7	3384.7	3406.7	3745.7	4622.6	4616.6
70°	2721.8	2719.8	3000.7	3202.7	2601.8	2536.8	2590.8	2583.8	3042.7	4107.6	4030.6
72.5°	1924.8	1941.8	2230.8	2473.8	1766.8	1522.9	1760.8	1852.8	2288.8	3462.7	3118.7
75°	1083.9	1106.9	1342.9	1718.8	1114.9	1029.9	1151.9	1282.9	1654.9	2756.8	2094.8
77.5°	544.0	553.0	687.9	826.9	675.9	784.9	777.9	902.9	1134.9	1859.8	1197.9
80°	314.0	332.0	378.0	427.0	378.0	498.0	577.9	679.9	698.9	961.9	667.9
82.5°	126.0	141.0	177.0	201.0	157.0	148.0	101.0	318.0	421.0	465.0	256.0
85°	0.0	0.0	1.0	2.0	3.0	3.0	5.0	56.0	103.0	23.0	42.0
87.5°	0.0	0.0	1.0	1.0	2.0	3.0	4.0	7.0	9.0	11.0	38.0
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):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	1867.8	1867.8	1867.8	1867.8	1867.8	1867.8	1867.8	1867.8	1867.8	1867.8	1867.8
2.5°	2024.8	2013.8	1976.8	1920.8	1885.8	1831.8	1809.8	1758.8	1732.8	1689.9	1689.9
5°	2004.8	1959.8	1866.8	1745.8	1659.9	1569.9	1540.9	1480.9	1437.9	1386.9	1365.9
7.5°	1822.8	1759.8	1614.9	1473.9	1336.9	1245.9	1155.9	1094.9	1036.9	994.9	1000.9
10°	1655.9	1565.9	1406.9	1227.9	1085.9	990.9	909.9	838.9	778.9	719.9	710.9
12.5°	1546.9	1443.9	1253.9	1061.9	955.9	885.9	810.9	732.9	658.9	593.9	567.9
15°	1500.9	1388.9	1176.9	995.9	898.9	808.9	721.9	625.9	541.0	463.0	442.0
17.5°	1550.9	1416.9	1169.9	951.9	816.9	703.9	582.9	478.0	378.0	322.0	305.0
20°	1686.9	1512.9	1192.9	907.9	725.9	579.9	432.0	313.0	257.0	223.0	212.0
22.5°	1883.8	1671.9	1231.9	864.9	633.9	432.0	298.0	226.0	193.0	175.0	170.0
25°	2097.8	1876.8	1303.9	828.9	542.0	321.0	221.0	185.0	165.0	152.0	147.0
27.5°	2338.8	2079.8	1391.9	801.9	457.0	257.0	190.0	163.0	147.0	138.0	134.0
30°	2489.8	2225.8	1458.9	753.9	399.0	234.0	181.0	154.0	137.0	130.0	127.0
32.5°	2628.8	2340.8	1522.9	698.9	355.0	207.0	176.0	162.0	142.0	128.0	122.0
35°	2781.8	2458.8	1553.9	665.9	326.0	180.0	145.0	126.0	115.0	113.0	110.0
37.5°	3009.7	2598.8	1573.9	647.9	308.0	164.0	135.0	114.0	101.0	89.0	84.0
40°	3225.7	2743.8	1583.9	630.9	299.0	154.0	129.0	108.0	94.0	83.0	78.0
42.5°	3394.7	2875.7	1589.9	618.9	283.0	148.0	124.0	104.0	89.0	78.0	73.0
45°	3532.7	3028.7	1584.9	614.9	270.0	152.0	122.0	101.0	85.0	74.0	69.0
47.5°	3667.7	3194.7	1603.9	609.9	257.0	146.0	123.0	100.0	82.0	71.0	66.0
50°	3844.7	3395.7	1672.9	595.9	248.0	137.0	133.0	101.0	81.0	69.0	65.0
52.5°	4073.6	3673.7	1797.8	580.9	237.0	129.0	139.0	101.0	79.0	67.0	62.0
55°	4351.6	3985.6	1935.8	559.0	218.0	119.0	133.0	101.0	77.0	66.0	60.0
57.5°	4578.6	4263.6	2044.8	533.0	183.0	107.0	122.0	97.0	72.0	62.0	57.0
58°	4598.6	4295.6	2059.8	526.0	179.0	105.0	119.0	96.0	70.0	61.0	56.0
60°	4679.6	4347.6	2065.8	488.0	149.0	100.0	103.0	93.0	66.0	57.0	53.0
62.5°	4651.6	4175.6	1938.8	421.0	133.0	91.0	86.0	95.0	61.0	52.0	48.0
65°	4512.6	3837.7	1698.9	377.0	134.0	81.0	74.0	83.0	56.0	47.0	43.0
67.5°	4181.6	3324.7	1379.9	353.0	140.0	72.0	64.0	62.0	50.0	42.0	39.0
70°	3566.7	2724.8	1045.9	332.0	148.0	64.0	59.0	55.0	46.0	39.0	35.0
72.5°	2626.8	2017.8	760.9	311.0	144.0	57.0	55.0	50.0	42.0	35.0	33.0
75°	1638.9	1171.9	521.0	254.0	129.0	50.0	51.0	47.0	38.0	33.0	30.0
77.5°	956.9	822.9	257.0	189.0	89.0	44.0	45.0	43.0	39.0	31.0	29.0
80°	572.9	512.0	110.0	81.0	49.0	39.0	38.0	40.0	37.0	29.0	27.0
82.5°	248.0	222.0	53.0	45.0	40.0	34.0	33.0	34.0	32.0	24.0	23.0
85°	14.0	37.0	25.0	33.0	30.0	25.0	25.0	26.0	23.0	19.0	19.0
87.5°	13.0	28.0	16.0	20.0	22.0	19.0	20.0	20.0	19.0	17.0	16.0
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):

	185°	195°	205°	215°	225°	235°	245°	255°	265°	270°	275°
0°	1867.8	1867.8	1867.8	1867.8	1867.8	1867.8	1867.8	1867.8	1867.8	1867.8	1867.8
2.5°	1666.9	1655.9	1622.9	1610.9	1558.9	1571.9	1575.9	1570.9	1572.9	1576.9	1591.9
5°	1380.9	1362.9	1319.9	1291.9	1276.9	1266.9	1219.9	1220.9	1227.9	1200.9	1235.9
7.5°	980.9	1000.9	1004.9	978.9	962.9	928.9	885.9	861.9	820.9	843.9	848.9
10°	701.9	691.9	710.9	701.9	676.9	663.9	617.9	613.9	609.9	606.9	635.9
12.5°	535.0	505.0	483.0	488.0	469.0	437.0	429.0	430.0	434.0	434.0	442.0
15°	424.0	378.0	343.0	322.0	325.0	293.0	284.0	254.0	250.0	241.0	243.0
17.5°	297.0	278.0	257.0	233.0	223.0	194.0	159.0	143.0	131.0	133.0	139.0
20°	205.0	197.0	191.0	179.0	169.0	135.0	113.0	106.0	105.0	107.0	109.0
22.5°	165.0	157.0	151.0	147.0	134.0	109.0	97.0	92.0	92.0	92.0	93.0
25°	142.0	134.0	126.0	126.0	114.0	95.0	86.0	82.0	81.0	80.0	82.0
27.5°	132.0	121.0	113.0	108.0	99.0	84.0	76.0	72.0	71.0	71.0	72.0
30°	122.0	111.0	103.0	96.0	86.0	75.0	67.0	64.0	62.0	62.0	63.0
32.5°	116.0	105.0	95.0	86.0	75.0	66.0	59.0	55.0	53.0	54.0	55.0
35°	103.0	94.0	85.0	76.0	66.0	58.0	51.0	47.0	46.0	46.0	47.0
37.5°	81.0	74.0	72.0	67.0	58.0	50.0	43.0	39.0	38.0	38.0	39.0
40°	73.0	64.0	60.0	58.0	53.0	43.0	35.0	31.0	31.0	30.0	32.0
42.5°	67.0	58.0	51.0	49.0	46.0	37.0	28.0	25.0	24.0	24.0	25.0
45°	63.0	53.0	44.0	39.0	39.0	30.0	23.0	19.0	18.0	18.0	19.0
47.5°	61.0	50.0	39.0	32.0	31.0	25.0	18.0	14.0	13.0	13.0	13.0
50°	59.0	46.0	35.0	27.0	24.0	21.0	14.0	11.0	10.0	10.0	10.0
52.5°	56.0	44.0	32.0	24.0	19.0	16.0	11.0	8.0	7.0	6.0	7.0
55°	54.0	41.0	31.0	22.0	16.0	12.0	8.0	6.0	5.0	5.0	5.0
57.5°	51.0	38.0	28.0	21.0	15.0	9.0	6.0	4.0	3.0	3.0	4.0
58°	50.0	38.0	27.0	20.0	14.0	9.0	6.0	4.0	3.0	3.0	4.0
60°	47.0	35.0	26.0	18.0	13.0	8.0	5.0	3.0	2.0	2.0	3.0
62.5°	44.0	32.0	23.0	16.0	11.0	7.0	4.0	2.0	1.0	1.0	1.0
65°	39.0	29.0	20.0	15.0	9.0	5.0	3.0	1.0	0.0	0.0	0.0
67.5°	35.0	27.0	18.0	13.0	8.0	4.0	2.0	0.0	0.0	0.0	0.0
70°	32.0	25.0	16.0	11.0	7.0	3.0	1.0	0.0	0.0	0.0	0.0
72.5°	30.0	23.0	15.0	10.0	5.0	3.0	1.0	0.0	0.0	0.0	0.0
75°	29.0	22.0	15.0	9.0	5.0	3.0	2.0	1.0	0.0	0.0	1.0
77.5°	28.0	22.0	15.0	9.0	6.0	3.0	3.0	2.0	2.0	1.0	3.0
80°	26.0	20.0	13.0	8.0	5.0	4.0	3.0	2.0	0.0	0.0	0.0
82.5°	22.0	16.0	11.0	8.0	5.0	3.0	1.0	0.0	0.0	0.0	0.0
85°	18.0	13.0	9.0	5.0	3.0	1.0	0.0	0.0	0.0	0.0	0.0
87.5°	16.0	10.0	7.0	4.0	2.0	1.0	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	0.0	0.0	0.0	0.0



REPORT NUMBER: P401678

CATALOG NUMBER: ENT-SA1E-740-U-SLL-HSS

CANDELA DISTRIBUTION (continued):

	285°	295°	305°	315°	325°	335°	345°	355°	359°	360°
0°	1867.8	1867.8	1867.8	1867.8	1867.8	1867.8	1867.8	1867.8	1867.8	1867.8
2.5°	1604.9	1650.9	1669.9	1733.8	1761.8	1819.8	1869.8	1912.8	1933.8	1950.8
5°	1244.9	1288.9	1335.9	1430.9	1512.9	1600.9	1710.8	1824.8	1857.8	1893.8
7.5°	868.9	933.9	1012.9	1097.9	1214.9	1347.9	1505.9	1646.9	1717.8	1735.8
10°	674.9	751.9	835.9	919.9	1016.9	1158.9	1317.9	1499.9	1575.9	1606.9
12.5°	507.0	609.9	709.9	808.9	892.9	1015.9	1188.9	1405.9	1489.9	1529.9
15°	305.0	421.0	544.0	676.9	793.9	937.9	1132.9	1385.9	1491.9	1536.9
17.5°	152.0	208.0	321.0	521.0	693.9	872.9	1131.9	1457.9	1588.9	1646.9
20°	113.0	128.0	171.0	325.0	576.9	818.9	1143.9	1580.9	1773.8	1822.8
22.5°	97.0	108.0	123.0	190.0	432.0	768.9	1185.9	1743.8	1983.8	2048.8
25°	85.0	94.0	106.0	131.0	296.0	709.9	1264.9	1973.8	2221.8	2310.8
27.5°	75.0	83.0	93.0	110.0	198.0	598.9	1309.9	2166.8	2413.8	2487.8
30°	66.0	72.0	82.0	94.0	146.0	463.0	1351.9	2336.8	2587.8	2645.8
32.5°	58.0	63.0	71.0	80.0	111.0	351.0	1353.9	2482.8	2739.8	2794.8
35°	49.0	55.0	61.0	69.0	88.0	274.0	1312.9	2627.8	2919.7	2986.7
37.5°	41.0	46.0	53.0	60.0	80.0	212.0	1227.9	2797.8	3138.7	3214.7
40°	35.0	40.0	46.0	54.0	71.0	154.0	1091.9	2951.7	3343.7	3413.7
42.5°	28.0	33.0	40.0	53.0	59.0	111.0	954.9	3099.7	3521.7	3586.7
45°	22.0	28.0	37.0	51.0	49.0	78.0	836.9	3230.7	3674.7	3761.7
47.5°	16.0	23.0	37.0	46.0	40.0	56.0	776.9	3356.7	3811.7	3870.7
50°	12.0	19.0	40.0	39.0	34.0	48.0	785.9	3496.7	3874.7	3912.7
52.5°	9.0	16.0	31.0	28.0	29.0	42.0	820.9	3681.7	4004.6	4031.6
55°	8.0	12.0	19.0	21.0	26.0	40.0	811.9	3856.7	4170.6	4217.6
57.5°	7.0	10.0	15.0	17.0	23.0	38.0	760.9	3933.7	4277.6	4342.6
58°	6.0	10.0	14.0	17.0	23.0	37.0	747.9	3912.7	4272.6	4354.6
60°	5.0	9.0	13.0	15.0	20.0	33.0	684.9	3734.7	4162.6	4277.6
62.5°	4.0	6.0	10.0	11.0	16.0	27.0	564.0	3446.7	3926.7	4068.6
65°	2.0	4.0	6.0	8.0	11.0	20.0	401.0	3105.7	3673.7	3812.7
67.5°	0.0	2.0	4.0	5.0	7.0	15.0	231.0	2635.8	3257.7	3367.7
70°	0.0	1.0	2.0	3.0	4.0	10.0	122.0	1934.8	2523.8	2721.8
72.5°	1.0	1.0	1.0	0.0	2.0	8.0	54.0	1147.9	1720.8	1924.8
75°	1.0	1.0	0.0	0.0	0.0	4.0	23.0	604.9	986.9	1083.9
77.5°	4.0	2.0	0.0	0.0	0.0	1.0	11.0	326.0	512.0	544.0
80°	1.0	0.0	0.0	0.0	0.0	0.0	4.0	109.0	307.0	314.0
82.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	132.0	126.0
85°	0.0	0.0	0.0	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	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

(END OF REPORT)