

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: P401684

Luminaire Tested: **ENT-SA1E-740-U-SLR**

Issue Date: 5/20/2020

Test Information

Test Method: LM-79-08
Report Number: P401684
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2004-754-9)
Test Lab: INNOVATION CENTER
Issue Date: 5/20/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: ENT-SA1E-740-U-SLR
Description: ENTRI LED LUMINAIRE
(1) 70 CRI, 4000K, 1050mA LIGHTSQUARE WITH 16 LEDS AND SPILL LIGHT ELIMINATOR RIGHT OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6220 lumens
Efficiency: N/A
Efficacy: 108.7 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type IV - Short - Non-Cutoff
BUG Rating: B1 - U0 - G2

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

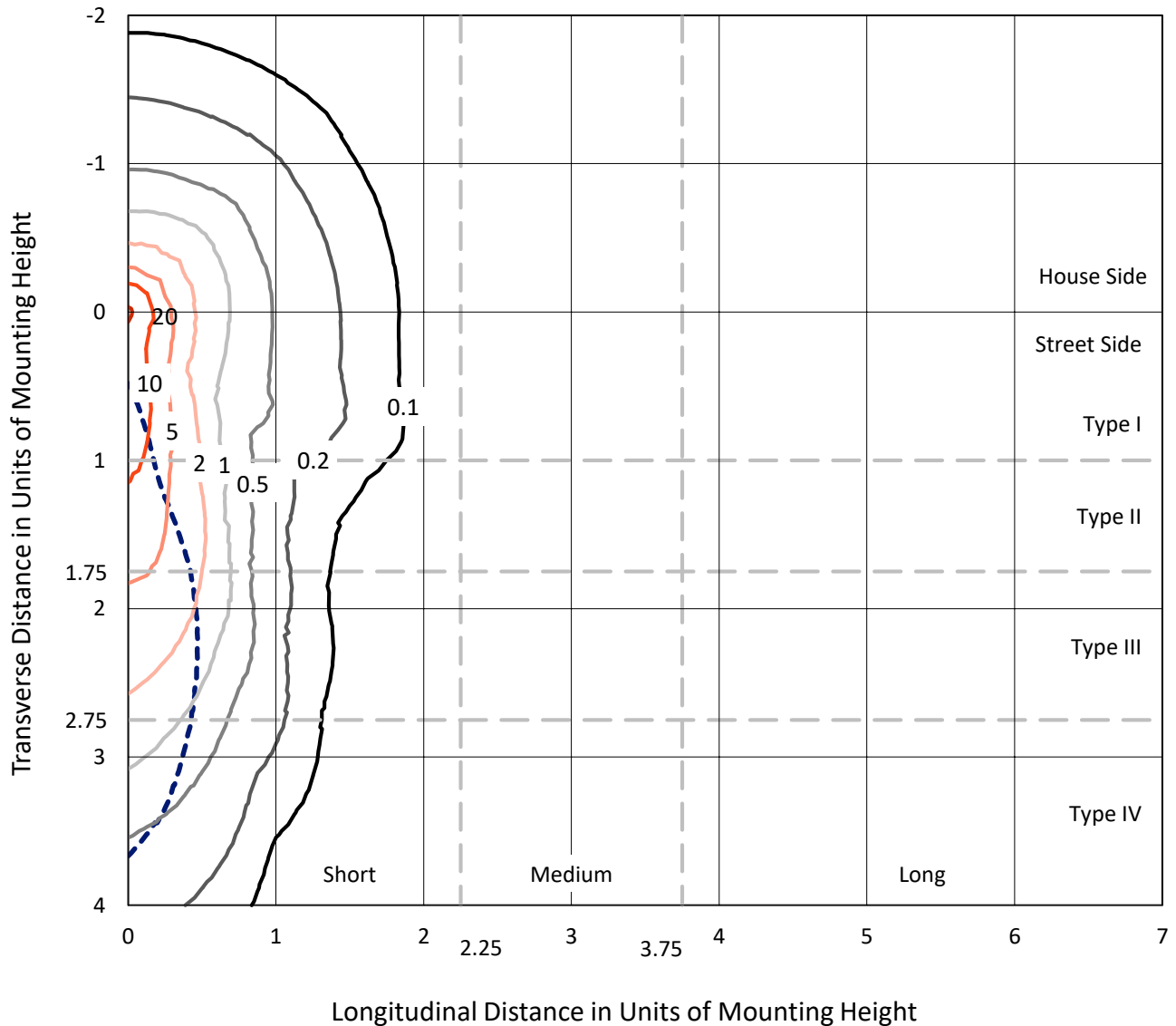


REPORT NUMBER: P401684

CATALOG NUMBER: ENT-SA1E-740-U-SLR

Iso-Footcandle Lines of Horizontal Illumination

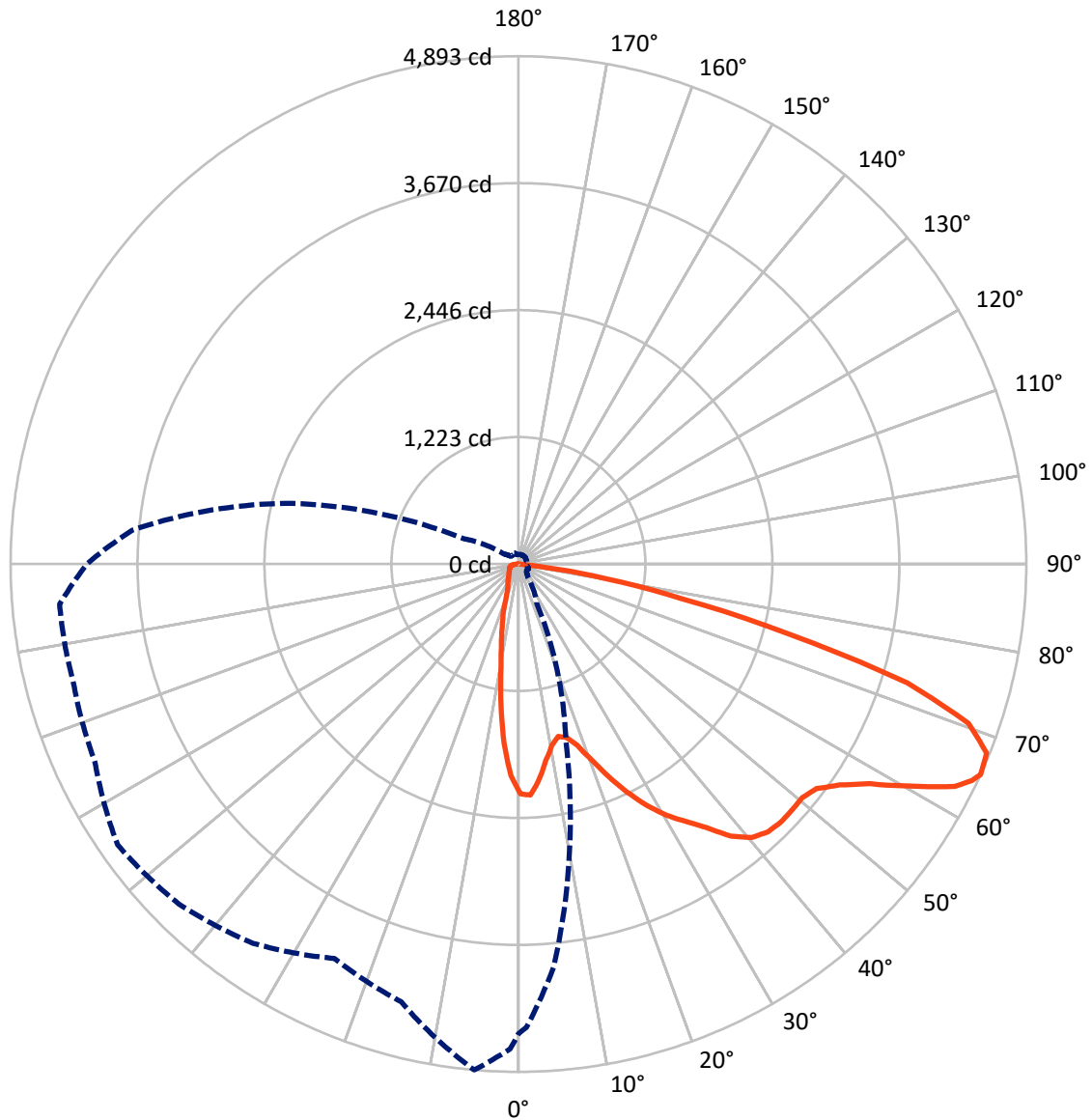
× Max cd
 - - - 1/2 Max cd



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

REPORT NUMBER: P401684
CATALOG NUMBER: ENT-SA1E-740-U-SLR

Luminous Intensity Polar Plot



— Vertical Plane Through 355-Deg Lateral - - - Horizontal Cone Through 65-Deg Vertical

REPORT NUMBER: P401684

CATALOG NUMBER: ENT-SA1E-740-U-SLR

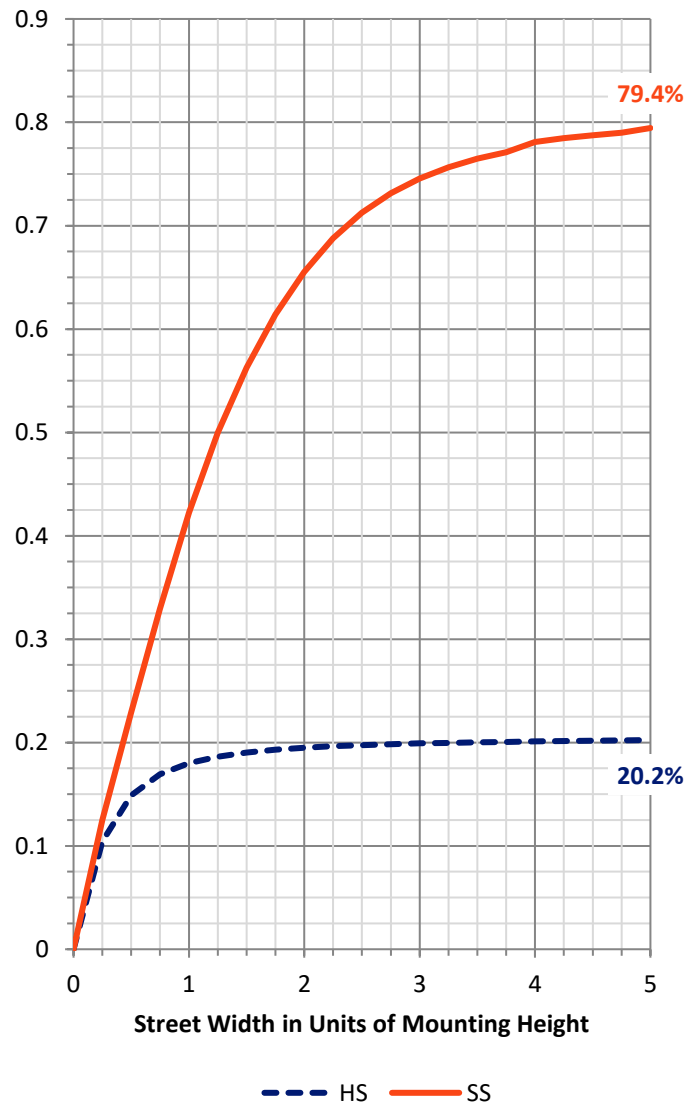
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1276.2	0.0	1276.2
	% Fixture	20.5	0.0	20.5
Street Side	Lumens	4943.8	0.0	4943.8
	% Fixture	79.5	0.0	79.5
Total	Lumens	6220.0	0.0	6220.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	168.9	2.7
10°-20°	336.3	5.4
20°-30°	466.3	7.5
30°-40°	651.9	10.5
40°-50°	887.0	14.3
50°-60°	1213.0	19.5
60°-70°	1483.1	23.8
70°-80°	895.4	14.4
80°-90°	118.1	1.9
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°	6220.0	100.0
0°-180°	6220.0	100.0



REPORT NUMBER: P401684

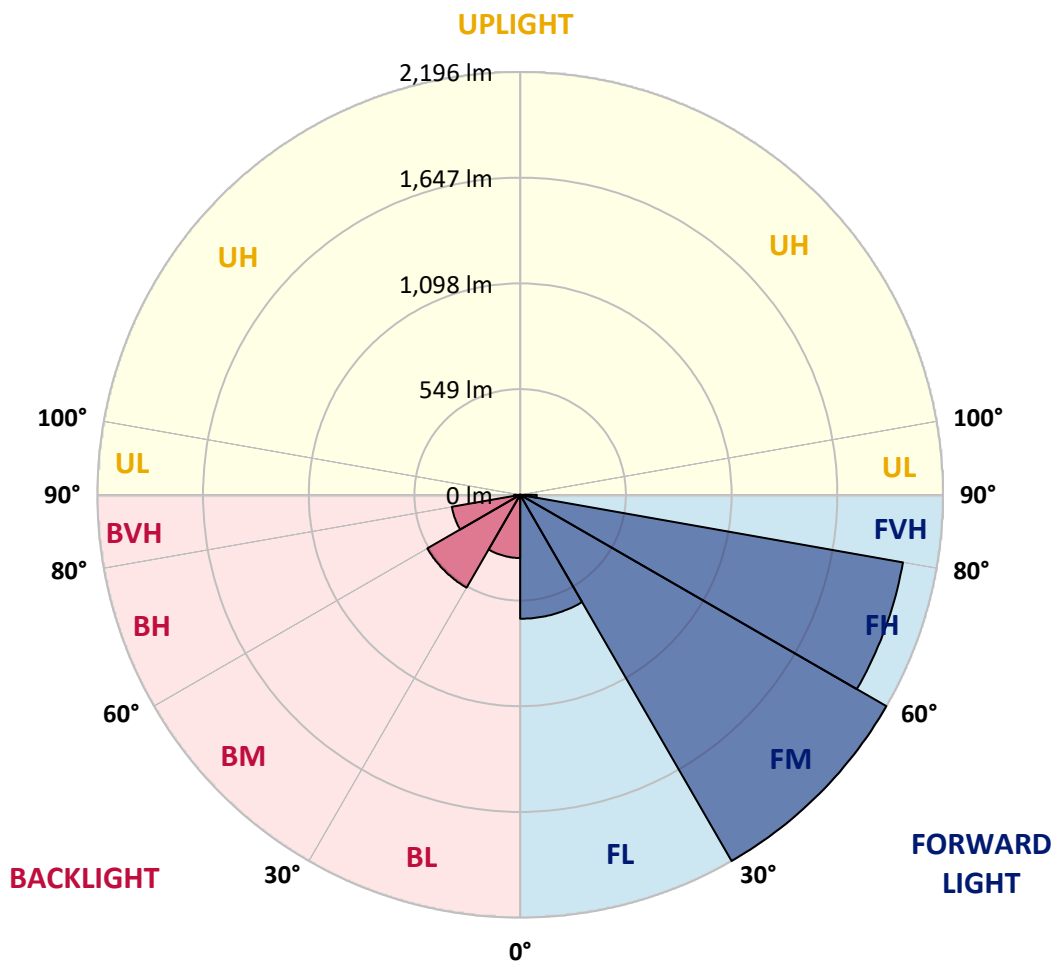
CATALOG NUMBER: ENT-SA1E-740-U-SLR

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	643.6	10.3			
FM	(30°-60°)	2195.6	35.3			
FH	(60°-80°)	2018.3	32.4			G2/5000
FVH	(80°-90°)	86.3	1.4			G1/100
BL	(0°-30°)	327.9	5.3	B1/500		
BM	(30°-60°)	556.3	8.9	B1/1000		
BH	(60°-80°)	360.2	5.8	B1/500		G1/500
BVH	(80°-90°)	31.8	0.5			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 IV Short





REPORT NUMBER: P401684

CATALOG NUMBER: ENT-SA1E-740-U-SLR

CANDELA DISTRIBUTION (FULL):

	0°	1°	5°	15°	25°	35°	45°	55°	65°	75°	85°
0°	2213.4	2213.4	2213.4	2213.4	2213.4	2213.4	2213.4	2213.4	2213.4	2213.4	2213.4
2.5°	2208.2	2202.0	2186.4	2144.7	2100.0	2047.0	2037.6	1980.4	1986.6	1970.0	1974.2
5°	2016.8	2008.5	1965.8	1882.6	1769.3	1703.7	1652.8	1622.6	1597.6	1585.2	1600.8
7.5°	1830.6	1819.2	1768.2	1621.6	1495.7	1391.7	1308.5	1257.5	1207.6	1168.1	1149.3
10°	1679.8	1675.7	1608.0	1442.7	1284.6	1157.7	1103.6	1049.5	1006.8	950.7	904.9
12.5°	1603.9	1591.4	1511.3	1318.9	1164.9	1086.9	1036.0	967.3	909.1	840.4	781.1
15°	1607.0	1592.4	1492.6	1290.8	1123.3	1028.7	950.7	868.5	783.2	713.5	653.2
17.5°	1696.5	1686.1	1564.4	1316.8	1088.0	956.9	835.2	729.1	635.5	548.1	494.1
20°	1847.3	1831.7	1663.2	1348.0	1043.3	874.7	709.4	563.8	462.9	385.9	343.2
22.5°	2043.9	2014.7	1803.6	1386.5	998.5	781.1	573.1	410.9	321.4	282.9	271.5
25°	2254.0	2231.1	1973.1	1435.4	950.7	679.2	424.4	298.5	267.3	251.7	243.4
27.5°	2447.4	2410.0	2155.2	1489.5	887.2	577.3	322.4	256.9	236.1	228.8	223.6
30°	2585.8	2553.5	2281.0	1551.9	832.1	471.2	275.6	233.0	216.3	204.9	202.8
32.5°	2717.9	2672.1	2372.5	1581.0	786.3	414.0	254.8	216.3	200.7	189.3	185.1
35°	2873.9	2828.1	2477.6	1585.2	752.0	390.0	235.1	203.9	187.2	176.8	171.6
37.5°	3058.0	2995.6	2596.2	1588.3	717.7	380.7	218.4	193.5	176.8	165.4	161.2
40°	3232.7	3184.9	2717.9	1583.1	694.8	367.2	208.0	182.0	166.4	156.0	150.8
42.5°	3364.8	3313.9	2821.9	1567.5	681.3	344.3	212.2	173.7	159.1	147.7	141.5
45°	3432.4	3386.7	2916.5	1552.9	674.0	324.5	208.0	170.6	153.9	140.4	134.2
47.5°	3483.4	3438.7	3013.3	1546.7	661.5	310.0	191.4	182.0	148.7	133.1	126.9
50°	3565.6	3527.1	3144.3	1582.0	641.8	300.6	175.8	194.5	146.7	126.9	119.6
52.5°	3713.3	3688.3	3360.7	1664.2	621.0	285.0	160.2	186.2	148.7	122.7	114.4
55°	3988.9	3973.3	3658.1	1772.4	601.2	265.2	143.5	168.5	147.7	115.5	109.2
57.5°	4286.4	4282.2	4019.1	1867.0	572.1	231.9	133.1	142.5	140.4	109.2	101.9
60°	4486.1	4472.6	4185.5	1920.1	534.6	191.4	124.8	120.7	143.5	103.0	94.7
62.5°	4554.7	4510.0	4135.6	1900.3	478.5	165.4	115.5	110.3	133.1	96.7	87.4
64°	4550.6	4485.0	4005.5	1825.4	442.1	160.2	110.3	103.0	117.5	92.6	84.3
65°	4526.6	4464.2	3897.4	1767.2	422.3	160.2	107.1	99.9	107.1	90.5	82.2
67.5°	4373.7	4291.6	3528.1	1496.7	371.3	162.3	99.9	91.5	89.5	83.2	77.0
70°	4025.3	3918.2	3021.6	1177.4	344.3	163.3	91.5	83.2	80.1	75.9	70.7
72.5°	3232.7	3089.2	2404.8	841.5	316.2	160.2	83.2	75.9	72.8	68.6	63.4
75°	2167.6	2010.6	1772.4	554.4	259.0	143.5	71.8	65.5	64.5	60.3	56.2
77.5°	1222.2	1156.6	1046.4	304.8	178.9	98.8	57.2	53.0	54.1	52.0	47.8
80°	638.6	608.5	559.6	147.7	86.3	47.8	36.4	36.4	41.6	41.6	39.5
82.5°	225.7	226.7	219.5	33.3	17.7	14.6	12.5	17.7	23.9	29.1	29.1
85°	1.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	2.1	4.2	7.3
87.5°	0.0	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	0.0



REPORT NUMBER: P401684

CATALOG NUMBER: ENT-SA1E-740-U-SLR

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	2213.4	2213.4	2213.4	2213.4	2213.4	2213.4	2213.4	2213.4	2213.4	2213.4	2213.4
2.5°	1938.8	1945.0	1961.7	1958.6	1975.2	1967.9	1989.8	2001.2	2007.5	2039.7	2055.3
5°	1588.3	1590.4	1649.6	1662.1	1693.3	1676.7	1715.2	1700.6	1731.8	1736.0	1788.0
7.5°	1167.0	1171.2	1200.3	1269.0	1336.6	1364.7	1376.1	1393.8	1379.2	1374.0	1381.3
10°	887.2	890.4	893.5	942.4	1001.6	1060.9	1060.9	1062.0	1036.0	1010.0	1004.8
12.5°	758.3	738.5	707.3	708.3	749.9	778.0	799.9	777.0	772.8	785.3	798.8
15°	624.1	604.3	583.5	558.6	559.6	579.4	590.8	589.8	610.6	619.9	648.0
17.5°	484.7	456.6	457.7	443.1	423.3	435.8	438.9	457.7	484.7	497.2	502.4
20°	325.6	325.6	333.9	351.6	342.2	350.5	351.6	366.1	378.6	371.3	378.6
22.5°	269.4	268.4	271.5	282.9	292.3	299.6	301.6	300.6	288.1	282.9	293.3
25°	244.4	243.4	244.4	250.7	261.1	270.4	266.3	260.0	245.5	244.4	246.5
27.5°	223.6	224.7	226.7	230.9	237.1	248.6	244.4	231.9	224.7	222.6	222.6
30°	205.9	205.9	210.1	214.3	221.5	231.9	224.7	214.3	207.0	204.9	203.9
32.5°	188.3	191.4	194.5	198.7	204.9	215.3	209.1	199.7	192.4	188.3	185.1
35°	170.6	172.7	178.9	185.1	190.3	198.7	194.5	186.2	178.9	169.5	165.4
37.5°	160.2	160.2	163.3	172.7	176.8	183.1	181.0	173.7	162.3	155.0	153.9
40°	150.8	150.8	151.9	157.1	164.3	171.6	167.5	156.0	148.7	145.6	144.6
42.5°	141.5	141.5	142.5	142.5	151.9	164.3	153.9	142.5	139.4	137.3	136.3
45°	133.1	133.1	133.1	132.1	137.3	152.9	141.5	132.1	130.0	130.0	129.0
47.5°	126.9	125.9	124.8	122.7	125.9	138.3	129.0	123.8	122.7	123.8	122.7
50°	118.6	117.5	116.5	115.5	117.5	122.7	120.7	115.5	116.5	116.5	117.5
52.5°	111.3	110.3	109.2	108.2	110.3	114.4	114.4	110.3	110.3	111.3	112.3
55°	107.1	105.1	104.0	104.0	105.1	110.3	109.2	106.1	106.1	108.2	109.2
57.5°	100.9	98.8	98.8	97.8	99.9	106.1	105.1	101.9	101.9	103.0	105.1
60°	94.7	93.6	92.6	94.7	95.7	101.9	100.9	98.8	97.8	100.9	100.9
62.5°	87.4	87.4	87.4	89.5	90.5	97.8	96.7	95.7	95.7	96.7	95.7
64°	83.2	83.2	84.3	85.3	87.4	93.6	93.6	93.6	93.6	93.6	92.6
65°	81.1	81.1	83.2	84.3	85.3	92.6	91.5	92.6	93.6	92.6	90.5
67.5°	75.9	75.9	79.0	79.0	80.1	88.4	87.4	89.5	91.5	89.5	87.4
70°	69.7	70.7	73.8	72.8	74.9	84.3	81.1	85.3	89.5	86.3	84.3
72.5°	63.4	64.5	68.6	66.6	67.6	79.0	74.9	79.0	85.3	83.2	81.1
75°	57.2	58.2	61.4	60.3	62.4	72.8	68.6	72.8	79.0	79.0	78.0
77.5°	48.9	51.0	53.0	52.0	56.2	65.5	61.4	64.5	69.7	73.8	71.8
80°	39.5	42.6	43.7	44.7	48.9	56.2	53.0	54.1	59.3	62.4	63.4
82.5°	27.0	32.2	34.3	35.4	41.6	43.7	44.7	43.7	46.8	51.0	47.8
85°	8.3	10.4	19.8	25.0	31.2	31.2	36.4	34.3	36.4	32.2	27.0
87.5°	0.0	0.0	0.0	7.3	18.7	18.7	26.0	23.9	25.0	18.7	16.6
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: P401684

CATALOG NUMBER: ENT-SA1E-740-U-SLR

CANDELA DISTRIBUTION (continued):

	185°	195°	205°	215°	225°	235°	245°	255°	265°	270°	275°
0°	2213.4	2213.4	2213.4	2213.4	2213.4	2213.4	2213.4	2213.4	2213.4	2213.4	2213.4
2.5°	2058.4	2076.1	2115.6	2161.4	2186.4	2240.4	2273.7	2309.1	2344.5	2351.7	2363.2
5°	1798.4	1819.2	1863.9	1925.3	1986.6	2058.4	2141.6	2230.0	2327.8	2369.4	2410.0
7.5°	1401.1	1405.2	1468.7	1580.0	1634.0	1736.0	1854.6	1990.8	2141.6	2219.6	2302.8
10°	1034.9	1077.6	1125.4	1218.0	1354.3	1471.8	1618.4	1777.6	1934.6	2048.0	2134.3
12.5°	813.4	867.5	946.5	1048.5	1151.4	1262.7	1432.3	1602.8	1796.3	1898.2	2004.3
15°	669.8	738.5	841.5	948.6	1044.3	1143.1	1293.9	1503.0	1750.5	1854.6	1949.2
17.5°	530.5	606.4	716.6	829.0	943.4	1064.1	1238.8	1497.8	1799.4	1920.1	2017.9
20°	406.7	466.0	558.6	671.9	806.1	971.5	1195.1	1537.3	1944.0	2094.8	2159.3
22.5°	301.6	336.0	408.8	527.3	685.4	889.3	1151.4	1593.5	2122.9	2299.7	2348.6
25°	249.6	259.0	292.3	395.2	558.6	796.7	1118.1	1666.3	2301.8	2500.5	2535.8
27.5°	224.7	229.9	245.5	284.0	436.9	720.8	1074.5	1750.5	2490.1	2699.1	2696.0
30°	202.8	203.9	213.2	240.3	354.7	653.2	1023.5	1844.2	2657.5	2841.6	2832.3
32.5°	183.1	183.1	195.5	216.3	302.7	591.8	962.1	1911.8	2803.2	2958.1	2928.0
35°	165.4	168.5	179.9	200.7	268.4	523.2	904.9	1936.7	2928.0	3098.5	3013.3
37.5°	152.9	157.1	168.5	188.3	239.2	472.2	858.1	1965.8	3081.9	3268.1	3109.0
40°	144.6	147.7	158.1	174.7	216.3	429.6	807.1	1985.6	3234.8	3449.1	3209.8
42.5°	136.3	139.4	149.8	165.4	205.9	379.6	758.3	1997.1	3393.9	3606.1	3294.1
45°	129.0	133.1	143.5	158.1	207.0	334.9	717.7	1992.9	3489.6	3719.5	3359.6
47.5°	123.8	127.9	139.4	158.1	200.7	308.9	683.4	1978.3	3560.4	3793.4	3389.8
50°	118.6	122.7	136.3	174.7	190.3	301.6	657.4	1976.2	3634.2	3807.9	3389.8
52.5°	113.4	120.7	137.3	175.8	174.7	298.5	636.6	2031.4	3736.1	3832.9	3419.9
55°	110.3	116.5	141.5	162.3	152.9	288.1	624.1	2107.3	3907.8	3970.2	3571.8
57.5°	106.1	111.3	139.4	151.9	136.3	264.2	613.7	2180.1	4133.5	4225.0	3874.5
60°	100.9	107.1	135.2	130.0	123.8	224.7	607.4	2240.4	4217.7	4389.4	4200.0
62.5°	95.7	103.0	147.7	113.4	114.4	187.2	596.0	2298.7	4039.9	4349.8	4409.1
64°	92.6	99.9	137.3	106.1	109.2	170.6	584.6	2301.8	3882.8	4256.2	4448.6
65°	90.5	96.7	127.9	101.9	105.1	166.4	574.2	2258.1	3735.1	4156.4	4437.2
67.5°	87.4	91.5	98.8	94.7	97.8	159.1	503.4	2065.7	3421.0	3899.4	4259.3
70°	83.2	86.3	87.4	86.3	91.5	153.9	425.4	1792.1	3077.7	3630.1	3982.7
72.5°	79.0	79.0	79.0	78.0	84.3	146.7	382.8	1447.9	2659.6	3276.4	3638.4
75°	75.9	72.8	71.8	69.7	77.0	142.5	345.3	1086.9	2055.3	2729.3	3048.6
77.5°	69.7	66.6	63.4	61.4	68.6	126.9	288.1	767.6	1515.5	1985.6	2352.8
80°	60.3	58.2	54.1	51.0	57.2	99.9	218.4	474.3	1108.8	1340.7	1543.6
82.5°	48.9	47.8	43.7	39.5	41.6	71.8	148.7	241.3	739.5	728.1	862.3
85°	30.2	37.4	32.2	26.0	28.1	41.6	60.3	77.0	226.7	136.3	211.1
87.5°	17.7	23.9	19.8	13.5	10.4	18.7	16.6	15.6	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: P401684

CATALOG NUMBER: ENT-SA1E-740-U-SLR

CANDELA DISTRIBUTION (continued):

	285°	295°	305°	315°	325°	335°	345°	355°	359°	360°
0°	2213.4	2213.4	2213.4	2213.4	2213.4	2213.4	2213.4	2213.4	2213.4	2213.4
2.5°	2390.2	2403.7	2411.0	2384.0	2354.9	2328.9	2278.9	2229.0	2203.0	2208.2
5°	2488.0	2510.9	2517.1	2477.6	2395.4	2311.2	2189.5	2084.4	2021.0	2016.8
7.5°	2450.5	2525.4	2537.9	2495.3	2377.7	2220.7	2055.3	1908.6	1845.2	1830.6
10°	2317.4	2431.8	2469.3	2454.7	2340.3	2160.4	1959.6	1773.4	1710.0	1679.8
12.5°	2181.2	2300.8	2323.7	2338.2	2268.5	2116.7	1896.2	1704.8	1628.8	1603.9
15°	2091.7	2173.9	2180.1	2193.6	2179.1	2095.9	1925.3	1732.9	1641.3	1607.0
17.5°	2079.2	2050.1	2030.3	2058.4	2076.1	2096.9	2001.2	1837.9	1740.1	1696.5
20°	2081.3	1990.8	1934.6	1932.6	2008.5	2123.9	2155.2	2014.7	1887.8	1847.3
22.5°	2157.2	1959.6	1866.0	1854.6	1947.1	2169.7	2312.2	2224.8	2097.9	2043.9
25°	2270.6	1940.9	1817.1	1820.2	1912.8	2199.9	2446.4	2434.9	2323.7	2254.0
27.5°	2379.8	1972.1	1810.9	1819.2	1924.2	2219.6	2557.7	2632.6	2507.8	2447.4
30°	2467.2	2041.8	1829.6	1836.9	1959.6	2246.7	2612.8	2808.4	2657.5	2585.8
32.5°	2543.1	2107.3	1857.7	1862.9	2015.8	2285.2	2664.8	2956.1	2803.2	2717.9
35°	2611.8	2163.5	1900.3	1918.0	2087.5	2340.3	2717.9	3116.2	2981.0	2873.9
37.5°	2672.1	2232.1	1984.6	2013.7	2192.6	2420.4	2786.5	3327.4	3179.7	3058.0
40°	2706.4	2293.5	2109.4	2153.1	2328.9	2524.4	2873.9	3464.7	3370.0	3232.7
42.5°	2732.4	2377.7	2310.1	2389.2	2540.0	2622.2	2915.5	3526.0	3482.4	3364.8
45°	2745.9	2544.2	2611.8	2685.6	2778.2	2729.3	2892.6	3546.8	3533.3	3432.4
47.5°	2807.3	2794.8	2961.3	3063.2	3058.0	2890.5	2848.9	3544.8	3566.6	3483.4
50°	2932.1	3087.1	3320.1	3419.9	3381.5	3041.3	2840.6	3541.6	3633.2	3565.6
52.5°	3080.9	3379.4	3708.1	3749.7	3668.5	3194.2	2903.0	3595.7	3758.0	3713.3
55°	3276.4	3654.0	4012.8	4026.3	3911.9	3343.0	3036.1	3754.9	3991.0	3988.9
57.5°	3548.9	3900.5	4268.7	4252.1	4090.8	3548.9	3250.4	3993.1	4250.0	4286.4
60°	3845.4	4160.5	4475.7	4466.3	4294.7	3786.1	3544.8	4345.7	4476.7	4486.1
62.5°	4129.3	4401.8	4675.4	4630.7	4437.2	4031.5	3952.5	4720.1	4624.4	4554.7
64°	4314.5	4483.0	4726.4	4655.6	4471.5	4149.1	4187.6	4841.8	4666.0	4550.6
65°	4437.2	4502.7	4714.9	4629.6	4460.1	4192.8	4365.4	4892.8	4673.3	4526.6
67.5°	4657.7	4389.4	4405.0	4337.3	4185.5	4152.2	4656.7	4864.7	4593.2	4373.7
70°	4596.3	3932.7	3718.5	3675.8	3493.8	3681.0	4620.3	4600.5	4292.6	4025.3
72.5°	4072.1	3157.8	2850.0	2811.5	2558.7	2789.6	3986.8	3918.2	3454.3	3232.7
75°	3355.5	2393.3	2035.5	2067.8	1875.4	2088.6	3171.4	2684.6	2299.7	2167.6
77.5°	2604.5	1691.3	1406.3	1367.8	1329.3	1352.2	2180.1	1612.2	1343.8	1222.2
80°	1660.0	1063.0	1054.7	964.2	933.0	786.3	1120.2	858.1	675.0	638.6
82.5°	882.0	612.6	695.8	557.5	448.3	322.4	379.6	254.8	215.3	225.7
85°	241.3	126.9	35.4	0.0	0.0	0.0	0.0	1.0	1.0	1.0
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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