

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: P401465

Luminaire Tested: **ENT-SA1D-730-U-T4W-HSS**

Issue Date: 5/20/2020

Test Information

Test Method: LM-79-08
Report Number: P401465
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2004-754-18)
Test Lab: INNOVATION CENTER
Issue Date: 5/20/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: ENT-SA1D-730-U-T4W-HSS
Description: ENTRI LED LUMINAIRE
(1) 70 CRI, 3000K, 800mA LIGHTSQUARE WITH 16 LEDS AND TYPE IV WIDE OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3835 lumens
Efficiency: N/A
Efficacy: 89.0 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type III - Short - Full Cutoff
BUG Rating: B0 - U0 - G1

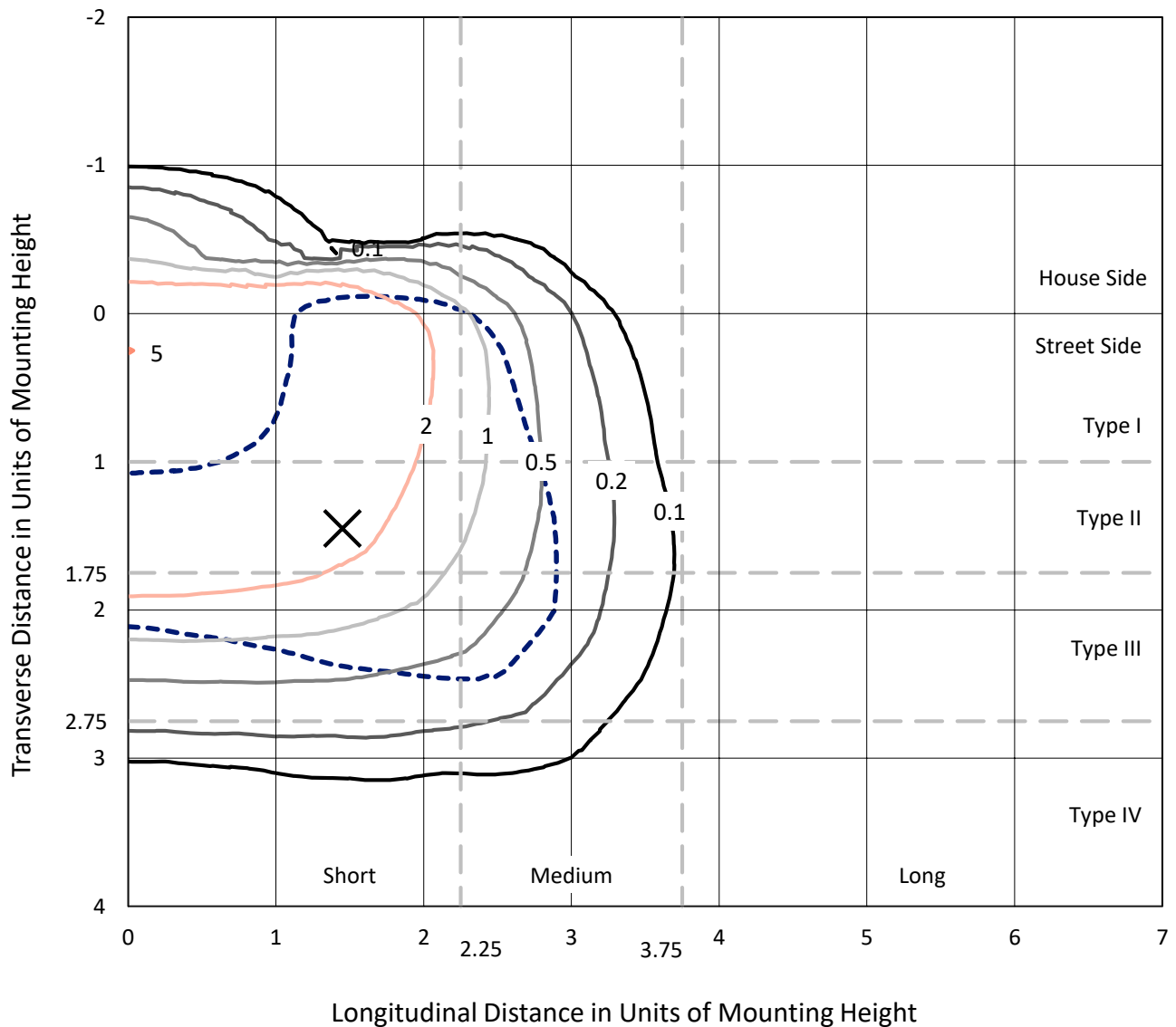
Input Watts (W): 43.1
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

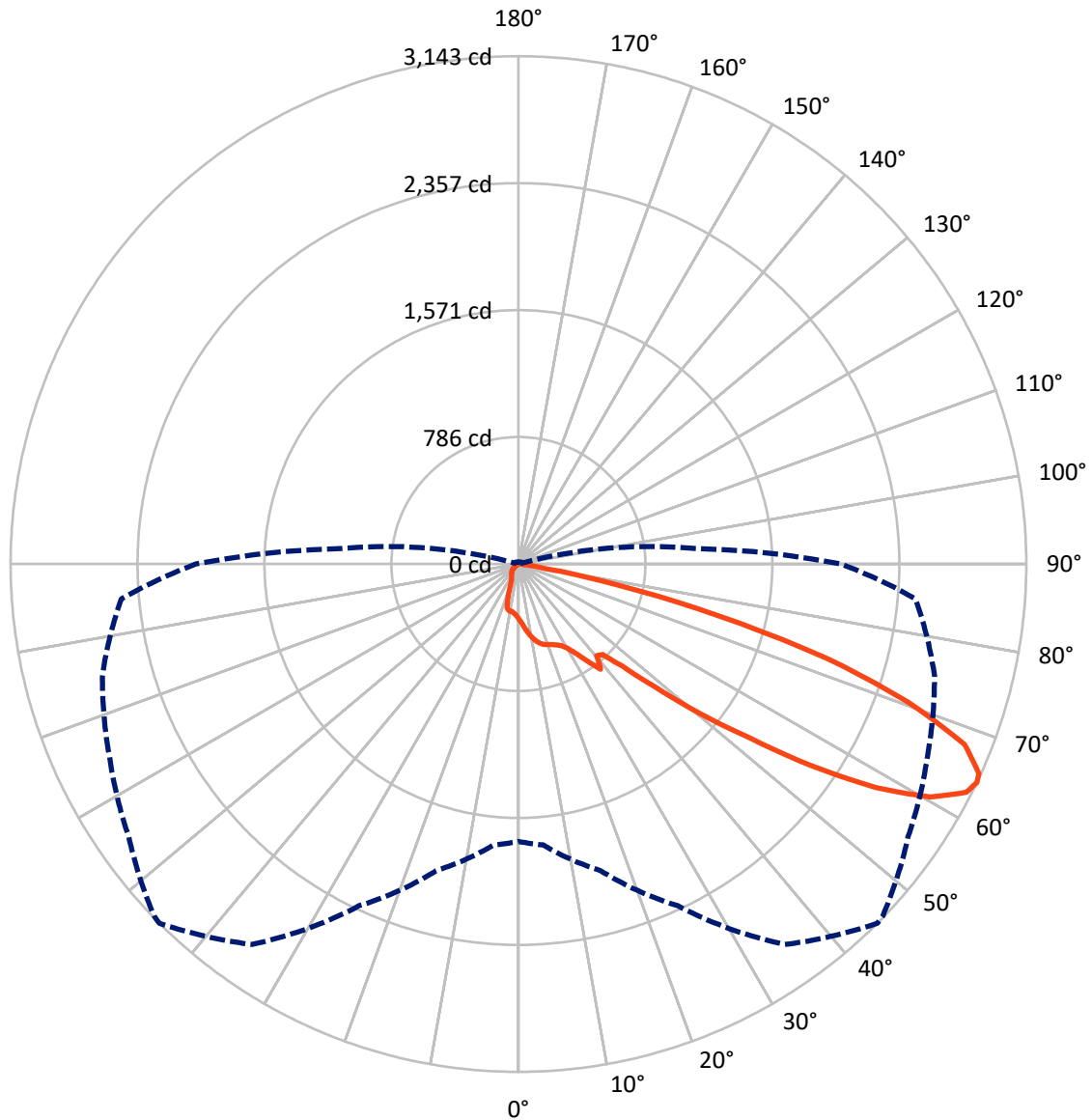
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 5.1 fc
 Type III - Short - Full Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 45-Deg Lateral - - - Horizontal Cone Through 64-Deg Vertical

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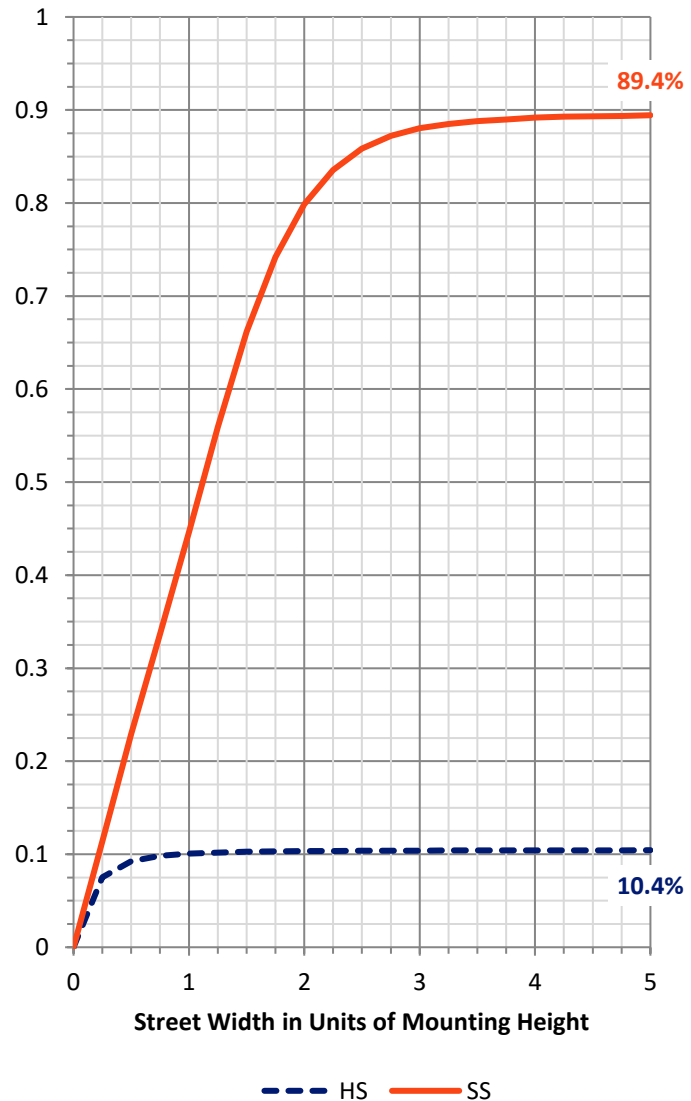
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	404.7	0.0	404.7
	% Fixture	10.6	0.0	10.6
Street Side	Lumens	3430.3	0.0	3430.3
	% Fixture	89.4	0.0	89.4
Total	Lumens	3835.0	0.0	3835.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	34.5	0.9
10°-20°	107.5	2.8
20°-30°	175.0	4.6
30°-40°	278.0	7.2
40°-50°	529.5	13.8
50°-60°	1091.2	28.5
60°-70°	1218.7	31.8
70°-80°	384.9	10.0
80°-90°	15.6	0.4
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°	3835.0	100.0
0°-180°	3835.0	100.0



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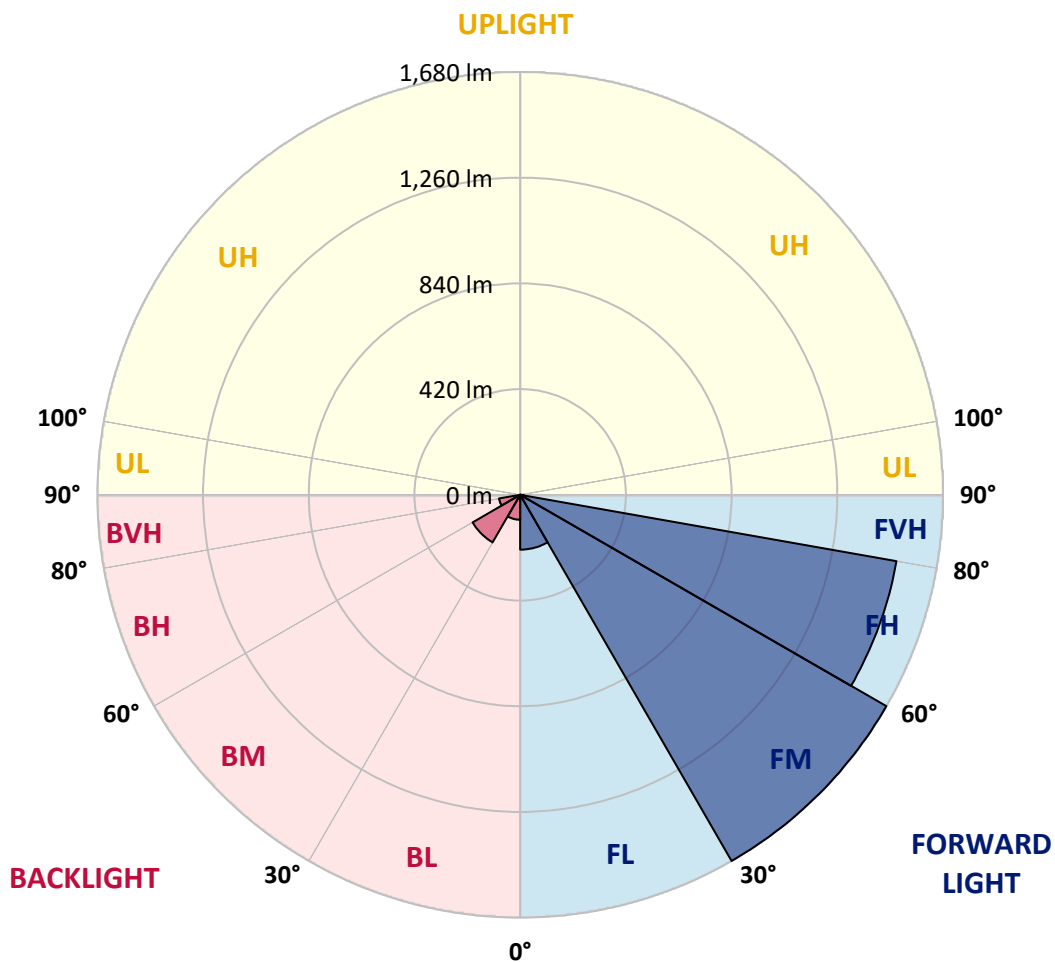
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	217.8	5.7			
FM	(30°-60°)	1680.4	43.8			
FH	(60°-80°)	1518.3	39.6			G1/1800
FVH	(80°-90°)	13.8	0.4			G1/100
BL	(0°-30°)	99.1	2.6	B0/110		
BM	(30°-60°)	218.4	5.7	B0/220		
BH	(60°-80°)	85.3	2.2	B0/110		G0/110
BVH	(80°-90°)	1.9	0.0			G0/10
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B0-U0-G1

Type III Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	46°	55°	65°	75°	85°
0°	339.9	339.9	339.9	339.9	339.9	339.9	339.9	339.9	339.9	339.9	339.9
2.5°	375.0	376.5	374.3	371.4	368.4	363.3	364.0	357.5	352.4	348.7	342.8
5°	422.5	421.8	417.4	410.8	404.3	394.8	393.3	383.1	372.1	360.4	349.4
7.5°	470.8	468.6	464.2	455.4	443.0	430.6	426.9	412.3	396.2	378.7	359.7
10°	510.3	508.8	503.7	494.2	479.5	460.5	460.5	440.1	418.9	397.7	375.0
12.5°	542.4	541.0	535.1	523.4	505.9	489.1	486.9	468.6	445.2	420.3	392.6
15°	562.2	560.7	554.1	541.0	525.6	510.3	508.1	490.5	469.3	440.8	408.6
17.5°	567.3	565.8	560.7	549.0	537.3	524.1	521.2	505.9	487.6	458.3	425.5
20°	565.1	562.2	559.2	549.7	540.2	531.5	530.0	519.0	502.9	478.1	443.0
22.5°	559.2	556.3	554.1	547.5	542.4	541.7	540.2	533.6	523.4	502.2	469.3
25°	557.0	554.8	552.7	548.3	547.5	554.8	554.1	553.4	549.0	530.7	496.4
27.5°	569.5	568.7	563.6	556.3	560.0	572.4	573.1	576.8	573.8	562.2	535.8
30°	613.3	609.7	598.0	581.9	591.4	607.5	610.4	622.1	622.8	624.3	588.5
32.5°	672.5	666.7	647.0	626.5	632.3	662.3	663.0	681.3	720.1	695.9	617.0
35°	713.5	706.2	676.2	665.2	694.5	742.0	748.6	785.8	788.8	701.0	614.8
37.5°	828.2	817.3	762.5	695.9	724.4	826.8	834.1	827.5	766.1	693.7	646.2
40°	981.8	971.5	922.5	810.7	730.3	745.6	749.3	769.0	780.7	744.9	747.1
42.5°	1181.3	1168.2	1117.7	981.0	821.7	765.4	772.7	812.9	889.6	906.5	992.7
45°	1385.3	1378.0	1326.8	1179.1	988.3	899.9	903.5	952.5	1089.9	1195.9	1269.0
47.5°	1584.8	1586.3	1542.4	1417.4	1231.0	1133.1	1128.7	1192.3	1366.3	1441.6	1516.1
50°	1866.3	1864.8	1786.6	1709.1	1563.6	1447.4	1440.1	1475.9	1643.3	1671.1	1786.6
52.5°	2186.5	2185.0	2067.3	2030.8	1969.4	1782.2	1802.0	1771.3	1891.9	1941.6	2105.3
55°	2338.5	2325.4	2275.7	2321.7	2394.8	2206.9	2204.0	2087.1	2181.4	2223.8	2376.5
57.5°	2323.2	2328.3	2375.8	2528.6	2768.4	2611.2	2615.6	2398.5	2453.3	2479.6	2591.5
60°	2236.2	2239.8	2350.2	2604.6	2954.8	2927.7	2912.4	2689.4	2653.6	2642.6	2696.0
62.5°	1987.6	1989.1	2168.2	2495.0	2953.3	3110.5	3095.9	2894.1	2782.3	2712.1	2614.9
64°	1717.2	1744.9	1964.2	2333.4	2873.6	3142.7	3134.6	2943.8	2794.0	2665.3	2465.7
65°	1494.9	1536.6	1802.0	2190.1	2783.7	3131.7	3122.2	2935.0	2777.9	2577.6	2311.5
67.5°	1019.8	1041.7	1280.0	1723.7	2440.9	2977.4	2974.5	2822.5	2603.2	2226.7	1813.7
70°	601.6	617.7	793.9	1203.3	1875.8	2557.8	2596.6	2541.8	2160.9	1599.5	1155.0
72.5°	187.1	196.6	350.2	668.2	1229.6	1992.8	2043.2	2003.7	1573.2	999.3	640.4
75°	70.2	73.1	115.5	290.2	611.9	1274.2	1289.5	1335.6	958.4	527.8	280.0
77.5°	38.7	39.5	57.0	108.9	269.0	625.8	640.4	634.5	509.5	249.3	89.2
80°	19.0	19.7	27.8	48.2	104.5	176.9	209.8	277.1	179.8	122.8	28.5
82.5°	6.6	5.8	12.4	21.9	35.1	47.5	53.4	76.8	75.3	67.3	10.2
85°	0.0	0.0	0.7	0.7	0.7	1.5	1.5	9.5	19.0	21.9	2.9
87.5°	0.0	0.0	0.0	0.7	0.7	0.7	0.7	0.7	0.7	1.5	1.5
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°	339.9	339.9	339.9	339.9	339.9	339.9	339.9	339.9	339.9	339.9	339.9
2.5°	339.9	338.5	333.3	328.2	324.6	320.2	319.5	316.5	315.8	315.8	315.8
5°	343.6	339.2	329.7	321.6	314.3	307.8	304.8	301.9	299.7	299.0	299.0
7.5°	351.6	345.0	329.7	318.0	307.0	299.0	294.6	291.7	289.5	289.5	289.5
10°	363.3	353.1	334.1	318.0	304.8	294.6	288.0	283.6	280.7	280.0	280.7
12.5°	377.9	364.8	341.4	321.6	306.3	293.1	279.2	253.7	236.9	227.3	225.9
15°	391.8	376.5	349.4	326.8	308.5	279.2	228.8	189.3	163.0	155.0	153.5
17.5°	407.2	391.1	360.4	334.1	300.4	225.2	163.0	130.1	125.0	126.5	126.5
20°	426.2	407.2	372.1	341.4	258.8	160.1	119.2	114.8	116.2	119.2	119.2
22.5°	448.1	427.6	388.2	337.0	197.4	117.0	108.9	109.7	111.1	114.0	114.0
25°	476.6	455.4	405.7	304.1	137.4	102.3	103.1	103.8	106.0	108.9	109.7
27.5°	519.0	493.4	426.9	255.1	103.8	95.0	95.8	98.0	100.1	103.8	103.8
30°	564.3	532.9	445.9	196.6	90.6	87.0	87.7	89.9	93.6	96.5	98.0
32.5°	584.1	556.3	449.6	134.5	84.1	80.4	79.0	81.1	84.1	87.0	87.7
35°	595.0	583.4	432.0	97.2	79.0	74.6	71.6	70.9	71.6	73.8	73.8
37.5°	649.1	641.1	396.9	83.3	73.8	69.4	65.1	61.4	59.9	59.2	59.9
40°	752.9	735.4	350.9	76.8	69.4	64.3	58.5	52.6	47.5	45.3	45.3
42.5°	981.8	893.3	285.1	72.4	65.1	59.2	50.4	42.4	36.6	35.1	35.1
45°	1228.1	1089.2	214.2	68.7	60.7	53.4	42.4	33.6	28.5	27.0	27.0
47.5°	1465.0	1234.0	149.9	64.3	55.6	46.8	35.1	27.0	23.4	22.7	22.7
50°	1713.5	1359.7	104.5	59.2	50.4	40.2	28.5	21.9	19.7	19.7	19.7
52.5°	1955.5	1452.5	76.8	54.1	43.9	33.6	24.1	19.7	18.3	18.3	18.3
55°	2138.2	1488.4	58.5	47.5	37.3	28.5	21.9	19.0	17.5	16.8	16.8
57.5°	2260.3	1458.4	47.5	39.5	31.4	24.9	19.7	17.5	16.1	15.4	15.4
60°	2257.4	1359.0	38.0	32.2	25.6	21.2	18.3	16.1	14.6	13.9	13.9
62.5°	2125.1	1197.4	30.0	25.6	21.2	18.3	16.1	14.6	13.2	12.4	11.7
64°	1995.7	1097.3	25.6	21.9	19.0	16.8	14.6	13.2	11.7	10.2	10.2
65°	1855.3	1002.2	23.4	19.7	16.8	15.4	13.9	12.4	10.2	8.8	8.8
67.5°	1410.9	742.0	19.0	15.4	13.2	12.4	11.0	9.5	7.3	5.8	5.8
70°	916.0	480.3	16.1	12.4	11.0	11.0	10.2	8.0	5.8	5.1	4.4
72.5°	469.3	239.0	13.2	10.2	9.5	9.5	8.8	6.6	5.1	4.4	3.7
75°	198.8	97.2	11.0	8.8	8.0	7.3	6.6	5.8	4.4	3.7	3.7
77.5°	69.4	36.6	10.2	8.8	6.6	5.8	5.8	5.8	5.8	5.1	4.4
80°	23.4	13.9	6.6	6.6	7.3	8.0	8.0	7.3	8.0	6.6	5.1
82.5°	9.5	5.1	2.2	2.9	5.1	5.8	6.6	6.6	6.6	5.1	4.4
85°	2.2	1.5	1.5	2.2	2.2	2.9	2.9	3.7	3.7	2.9	2.9
87.5°	1.5	1.5	1.5	1.5	1.5	1.5	2.2	1.5	2.2	2.2	2.2
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)