

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: P401825

Luminaire Tested: **ENT-SA1F-730-U-T4W-HSS**

Issue Date: 5/20/2020

Test Information

Test Method: LM-79-08
Report Number: P401825
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-SA1F-730-U-T4W-HSS
Description: ENTRI LED LUMINAIRE
(1) 70 CRI, 3000K, 1200mA 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: 5288 lumens
Efficiency: N/A
Efficacy: 80.0 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type III - Short - Full Cutoff
BUG Rating: B1 - U0 - G2

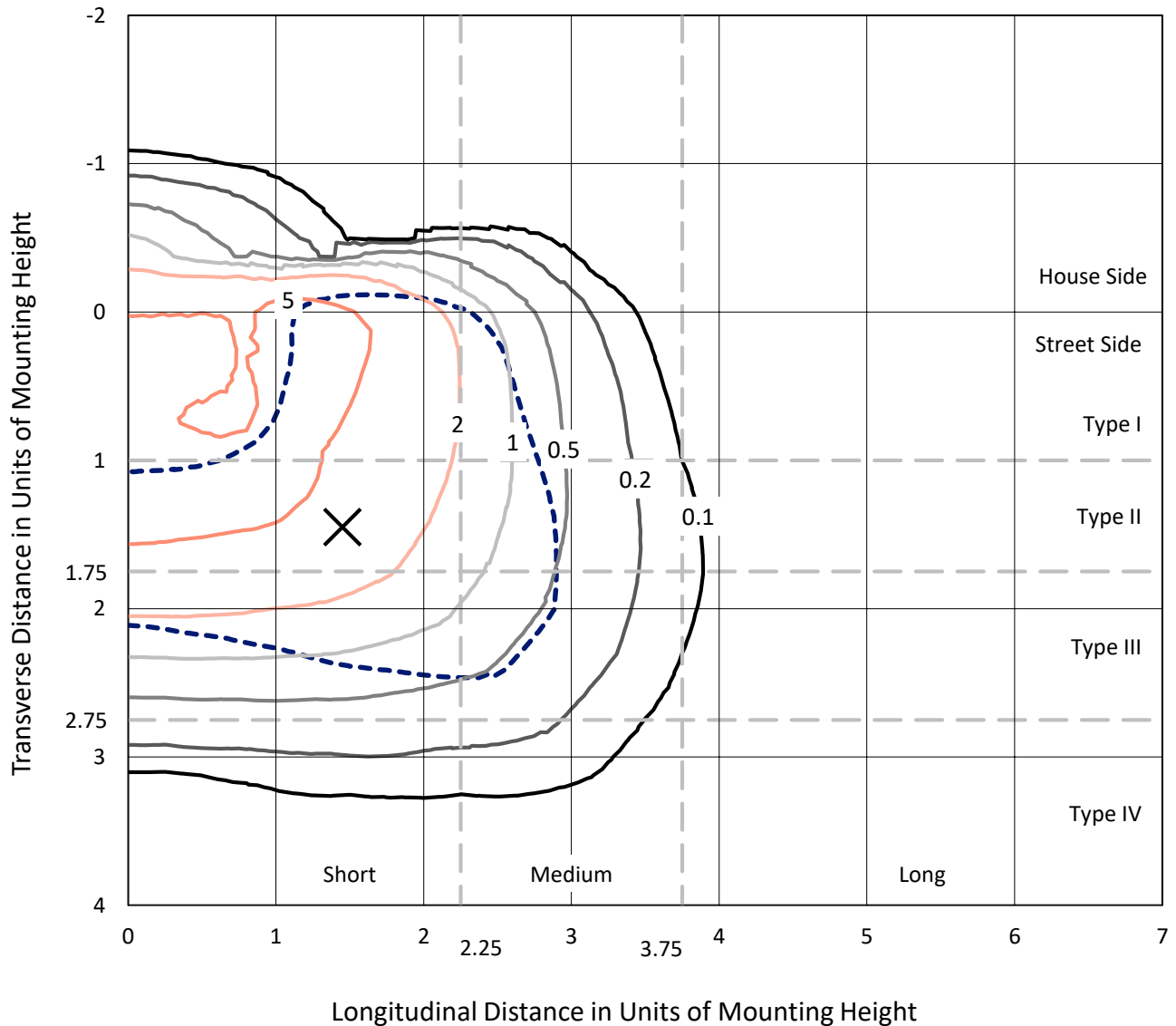
Input Watts (W): 66.1
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

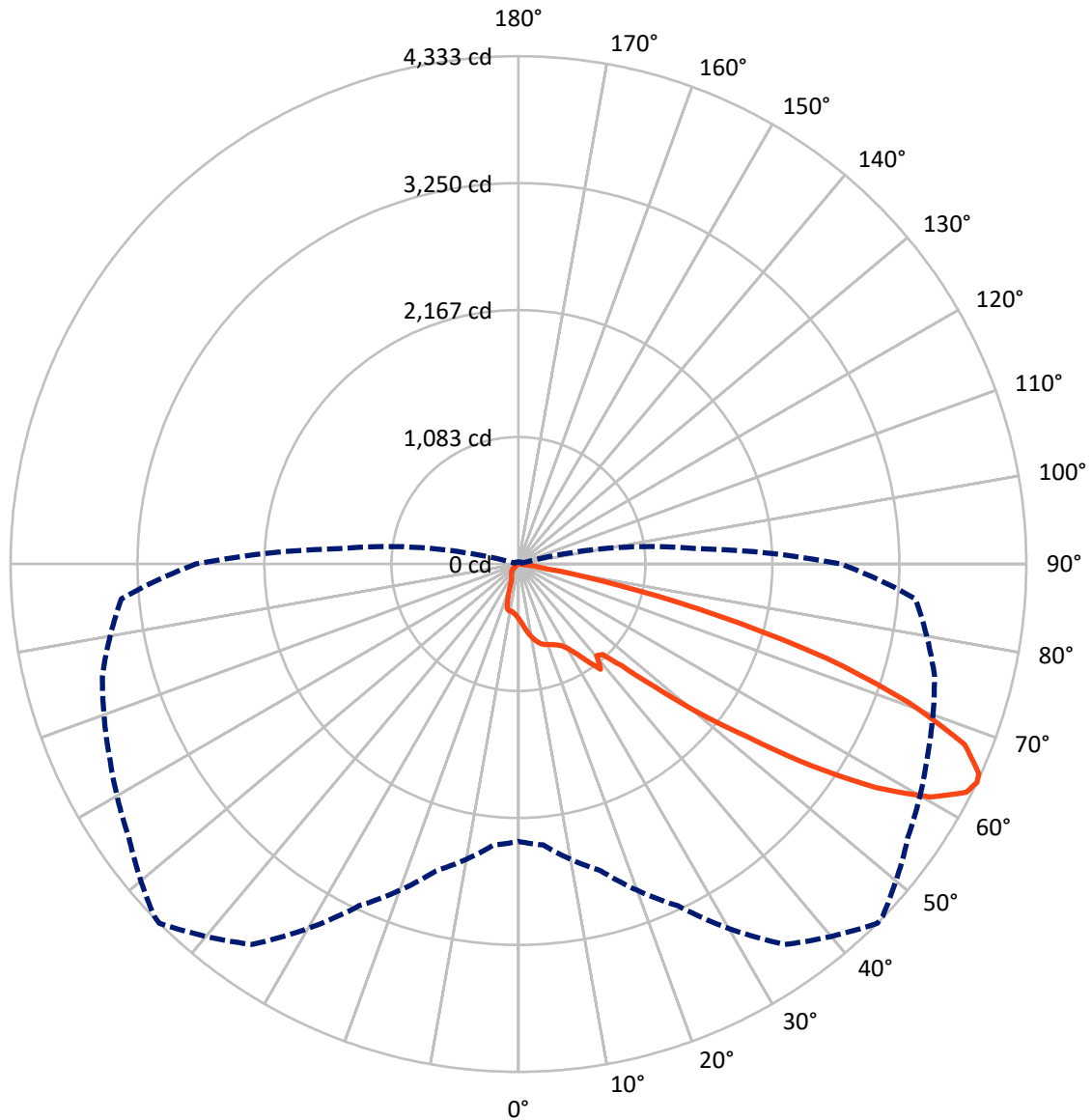
✕ Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 7 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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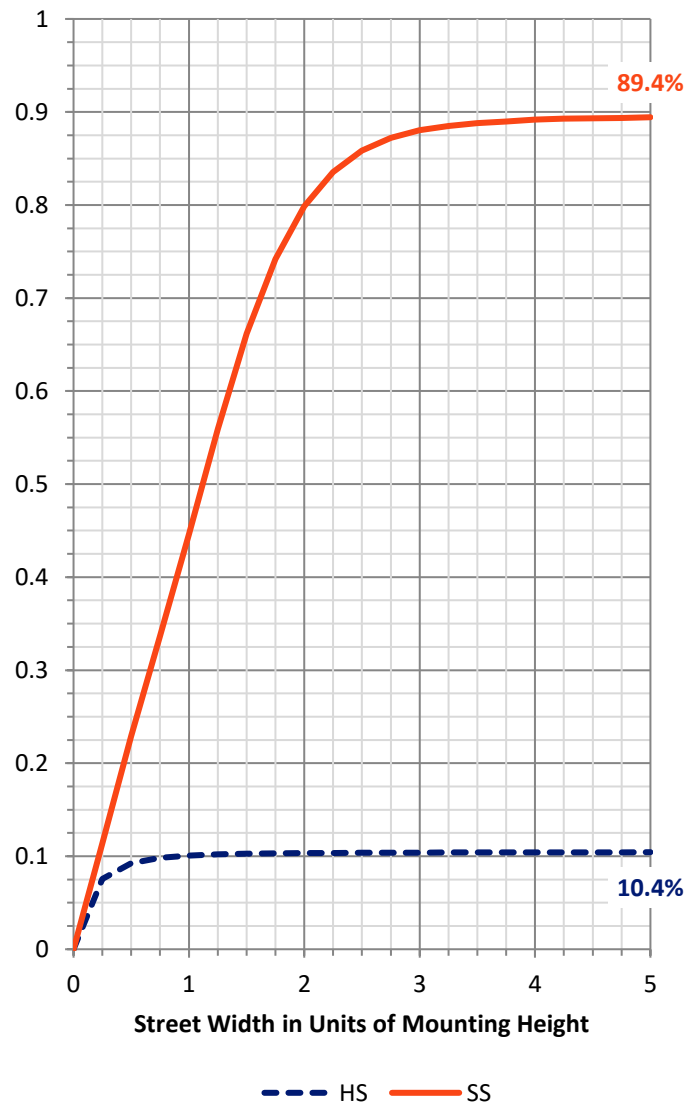
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	558.0	0.0	558.0
	% Fixture	10.6	0.0	10.6
Street Side	Lumens	4730.0	0.0	4730.0
	% Fixture	89.4	0.0	89.4
Total	Lumens	5288.0	0.0	5288.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	47.5	0.9
10°-20°	148.2	2.8
20°-30°	241.3	4.6
30°-40°	383.3	7.2
40°-50°	730.2	13.8
50°-60°	1504.6	28.5
60°-70°	1680.5	31.8
70°-80°	530.8	10.0
80°-90°	21.6	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°	5288.0	100.0
0°-180°	5288.0	100.0



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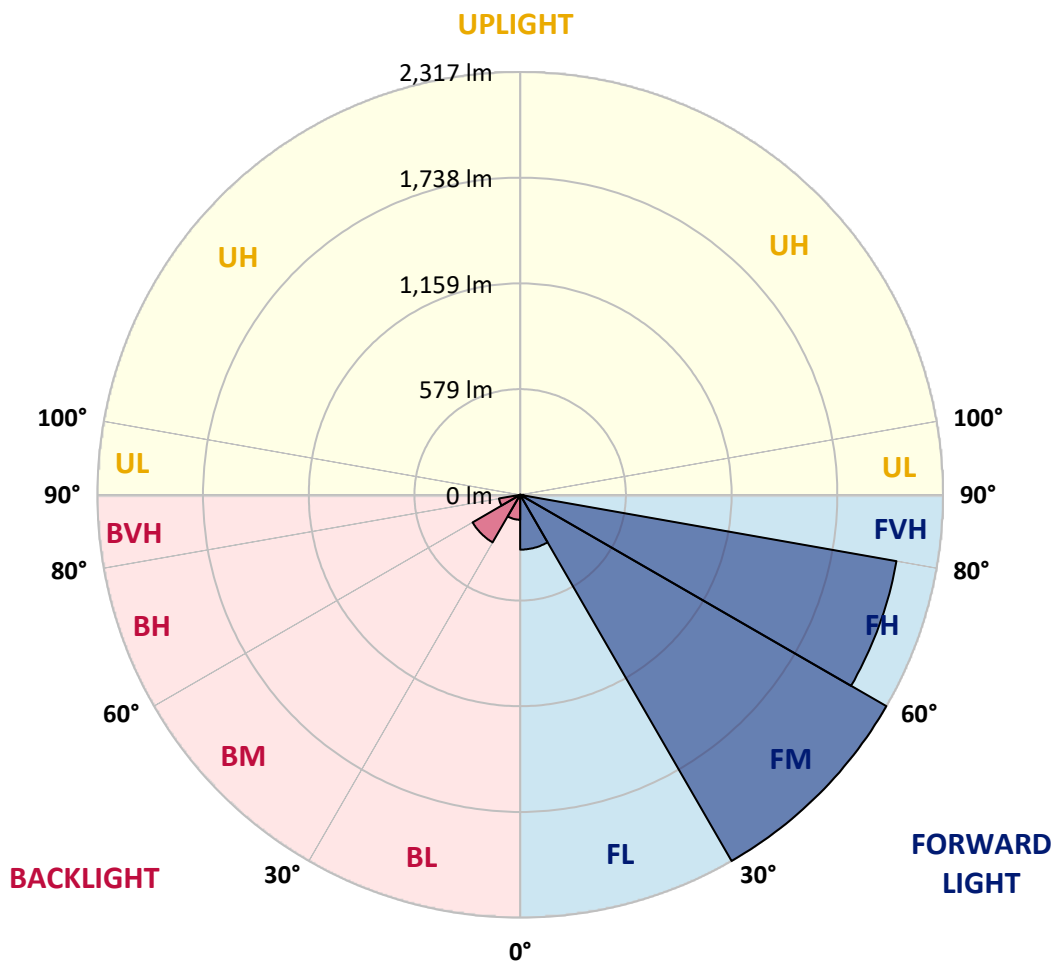
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	300.4	5.7			
FM	(30°-60°)	2317.0	43.8			
FH	(60°-80°)	2093.6	39.6			G2/5000
FVH	(80°-90°)	19.0	0.4			G1/100
BL	(0°-30°)	136.7	2.6	B1/500		
BM	(30°-60°)	301.1	5.7	B1/1000		
BH	(60°-80°)	117.6	2.2	B1/500		G1/500
BVH	(80°-90°)	2.6	0.0			G0/10
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B1-U0-G2

Type III Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	46°	55°	65°	75°	85°
0°	468.7	468.7	468.7	468.7	468.7	468.7	468.7	468.7	468.7	468.7	468.7
2.5°	517.1	519.1	516.1	512.1	508.0	501.0	502.0	492.9	485.8	480.8	472.7
5°	582.6	581.6	575.6	566.5	557.4	544.3	542.3	528.2	513.1	496.9	481.8
7.5°	649.1	646.1	640.1	628.0	610.8	593.7	588.7	568.5	546.3	522.1	495.9
10°	703.6	701.6	694.5	681.4	661.2	635.0	635.0	606.8	577.6	548.3	517.1
12.5°	747.9	745.9	737.8	721.7	697.5	674.3	671.3	646.1	613.9	579.6	541.3
15°	775.1	773.1	764.1	745.9	724.7	703.6	700.6	676.4	647.1	607.8	563.5
17.5°	782.2	780.2	773.1	757.0	740.9	722.7	718.7	697.5	672.3	632.0	586.6
20°	779.2	775.1	771.1	758.0	744.9	732.8	730.8	715.7	693.5	659.2	610.8
22.5°	771.1	767.1	764.1	755.0	747.9	746.9	744.9	735.8	721.7	692.5	647.1
25°	768.1	765.1	762.0	756.0	755.0	765.1	764.1	763.0	757.0	731.8	684.4
27.5°	785.2	784.2	777.2	767.1	772.1	789.3	790.3	795.3	791.3	775.1	738.9
30°	845.7	840.7	824.5	802.4	815.5	837.6	841.7	857.8	858.8	860.8	811.4
32.5°	927.3	919.3	892.1	863.8	871.9	913.2	914.2	939.4	992.9	959.6	850.7
35°	983.8	973.7	932.4	917.3	957.6	1023.1	1032.2	1083.6	1087.6	966.7	847.7
37.5°	1142.0	1126.9	1051.3	959.6	998.9	1140.0	1150.1	1141.0	1056.4	956.6	891.1
40°	1353.7	1339.6	1272.1	1117.9	1007.0	1028.1	1033.2	1060.4	1076.5	1027.1	1030.2
42.5°	1628.9	1610.8	1541.2	1352.7	1133.0	1055.4	1065.4	1120.9	1226.7	1249.9	1368.8
45°	1910.1	1900.1	1829.5	1625.9	1362.8	1240.8	1245.9	1313.4	1502.9	1649.1	1749.9
47.5°	2185.3	2187.3	2126.9	1954.5	1697.4	1562.4	1556.3	1644.0	1883.9	1987.7	2090.6
50°	2573.4	2571.4	2463.5	2356.7	2156.1	1995.8	1985.7	2035.1	2266.0	2304.3	2463.5
52.5°	3014.9	3012.9	2850.6	2800.2	2715.5	2457.5	2484.7	2442.4	2608.7	2677.2	2903.0
55°	3224.5	3206.4	3137.9	3201.4	3302.2	3043.1	3039.1	2877.8	3007.8	3066.3	3277.0
57.5°	3203.4	3210.4	3276.0	3486.6	3817.2	3600.5	3606.6	3307.2	3382.8	3419.1	3573.3
60°	3083.4	3088.5	3240.7	3591.5	4074.3	4037.0	4015.8	3708.4	3659.0	3643.9	3717.5
62.5°	2740.7	2742.7	2989.7	3440.3	4072.3	4289.0	4268.8	3990.6	3836.4	3739.6	3605.6
64°	2367.8	2406.1	2708.5	3217.5	3962.4	4333.3	4322.2	4059.2	3852.5	3675.1	3399.9
65°	2061.3	2118.8	2484.7	3019.9	3838.4	4318.2	4305.1	4047.1	3830.3	3554.2	3187.3
67.5°	1406.1	1436.4	1765.0	2376.8	3365.7	4105.5	4101.5	3891.8	3589.4	3070.3	2500.8
70°	829.6	851.7	1094.7	1659.1	2586.5	3526.9	3580.4	3504.8	2979.6	2205.5	1592.6
72.5°	258.0	271.1	482.8	921.3	1695.4	2747.8	2817.3	2762.9	2169.2	1377.9	883.0
75°	96.8	100.8	159.3	400.2	843.7	1756.9	1778.1	1841.6	1321.5	727.8	386.1
77.5°	53.4	54.4	78.6	150.2	370.9	862.8	883.0	874.9	702.6	343.7	123.0
80°	26.2	27.2	38.3	66.5	144.1	243.9	289.3	382.0	248.0	169.3	39.3
82.5°	9.1	8.1	17.1	30.2	48.4	65.5	73.6	105.8	103.8	92.7	14.1
85°	0.0	0.0	1.0	1.0	1.0	2.0	2.0	13.1	26.2	30.2	4.0
87.5°	0.0	0.0	0.0	1.0	1.0	1.0	1.0	1.0	1.0	2.0	2.0
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°	468.7	468.7	468.7	468.7	468.7	468.7	468.7	468.7	468.7	468.7	468.7
2.5°	468.7	466.7	459.6	452.6	447.5	441.5	440.5	436.5	435.5	435.5	435.5
5°	473.8	467.7	454.6	443.5	433.4	424.4	420.3	416.3	413.3	412.3	412.3
7.5°	484.8	475.8	454.6	438.5	423.4	412.3	406.2	402.2	399.2	399.2	399.2
10°	501.0	486.9	460.6	438.5	420.3	406.2	397.1	391.1	387.1	386.1	387.1
12.5°	521.1	503.0	470.7	443.5	422.3	404.2	385.1	349.8	326.6	313.5	311.5
15°	540.3	519.1	481.8	450.6	425.4	385.1	315.5	261.1	224.8	213.7	211.7
17.5°	561.4	539.3	496.9	460.6	414.3	310.5	224.8	179.4	172.4	174.4	174.4
20°	587.7	561.4	513.1	470.7	356.8	220.7	164.3	158.3	160.3	164.3	164.3
22.5°	617.9	589.7	535.2	464.7	272.2	161.3	150.2	151.2	153.2	157.2	157.2
25°	657.2	628.0	559.4	419.3	189.5	141.1	142.1	143.1	146.2	150.2	151.2
27.5°	715.7	680.4	588.7	351.8	143.1	131.0	132.0	135.1	138.1	143.1	143.1
30°	778.2	734.8	614.9	271.1	125.0	120.0	121.0	124.0	129.0	133.1	135.1
32.5°	805.4	767.1	619.9	185.5	115.9	110.9	108.9	111.9	115.9	120.0	121.0
35°	820.5	804.4	595.7	134.1	108.9	102.8	98.8	97.8	98.8	101.8	101.8
37.5°	895.1	884.0	547.3	114.9	101.8	95.8	89.7	84.7	82.7	81.6	82.7
40°	1038.2	1014.0	483.8	105.8	95.8	88.7	80.6	72.6	65.5	62.5	62.5
42.5°	1353.7	1231.8	393.1	99.8	89.7	81.6	69.6	58.5	50.4	48.4	48.4
45°	1693.4	1501.9	295.3	94.8	83.7	73.6	58.5	46.4	39.3	37.3	37.3
47.5°	2020.0	1701.5	206.6	88.7	76.6	64.5	48.4	37.3	32.3	31.2	31.2
50°	2362.7	1874.9	144.1	81.6	69.6	55.4	39.3	30.2	27.2	27.2	27.2
52.5°	2696.4	2002.9	105.8	74.6	60.5	46.4	33.3	27.2	25.2	25.2	25.2
55°	2948.4	2052.3	80.6	65.5	51.4	39.3	30.2	26.2	24.2	23.2	23.2
57.5°	3116.7	2010.9	65.5	54.4	43.3	34.3	27.2	24.2	22.2	21.2	21.2
60°	3112.7	1873.8	52.4	44.4	35.3	29.2	25.2	22.2	20.2	19.2	19.2
62.5°	2930.2	1651.1	41.3	35.3	29.2	25.2	22.2	20.2	18.1	17.1	16.1
64°	2751.8	1513.0	35.3	30.2	26.2	23.2	20.2	18.1	16.1	14.1	14.1
65°	2558.3	1381.9	32.3	27.2	23.2	21.2	19.2	17.1	14.1	12.1	12.1
67.5°	1945.4	1023.1	26.2	21.2	18.1	17.1	15.1	13.1	10.1	8.1	8.1
70°	1263.0	662.2	22.2	17.1	15.1	15.1	14.1	11.1	8.1	7.1	6.0
72.5°	647.1	329.6	18.1	14.1	13.1	13.1	12.1	9.1	7.1	6.0	5.0
75°	274.2	134.1	15.1	12.1	11.1	10.1	9.1	8.1	6.0	5.0	5.0
77.5°	95.8	50.4	14.1	12.1	9.1	8.1	8.1	8.1	8.1	7.1	6.0
80°	32.3	19.2	9.1	9.1	10.1	11.1	11.1	10.1	11.1	9.1	7.1
82.5°	13.1	7.1	3.0	4.0	7.1	8.1	9.1	9.1	9.1	7.1	6.0
85°	3.0	2.0	2.0	3.0	3.0	4.0	4.0	5.0	5.0	4.0	4.0
87.5°	2.0	2.0	2.0	2.0	2.0	2.0	3.0	2.0	3.0	3.0	3.0
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)