

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: P401431

Luminaire Tested: **ENV-SA1D-727-U-SL2-HSS**

Issue Date: 5/20/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P401431  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2004-754-2)  
Test Lab: INNOVATION CENTER  
Issue Date: 5/20/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: INVUE  
Catalog Number: ENV-SA1D-727-U-SL2-HSS  
Description: ENTRI LED LUMINAIRE  
(1) 70 CRI, 2700K, 800mA LIGHTSQUARE WITH 16 LEDS AND TYPE II SPILL LIGHT  
ELIMINATOR OPTICS WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3817 lumens  
Efficiency: N/A  
Efficacy: 88.6 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')  
IES Classification: Type III - Medium - Non-Cutoff  
BUG Rating: B1 - 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

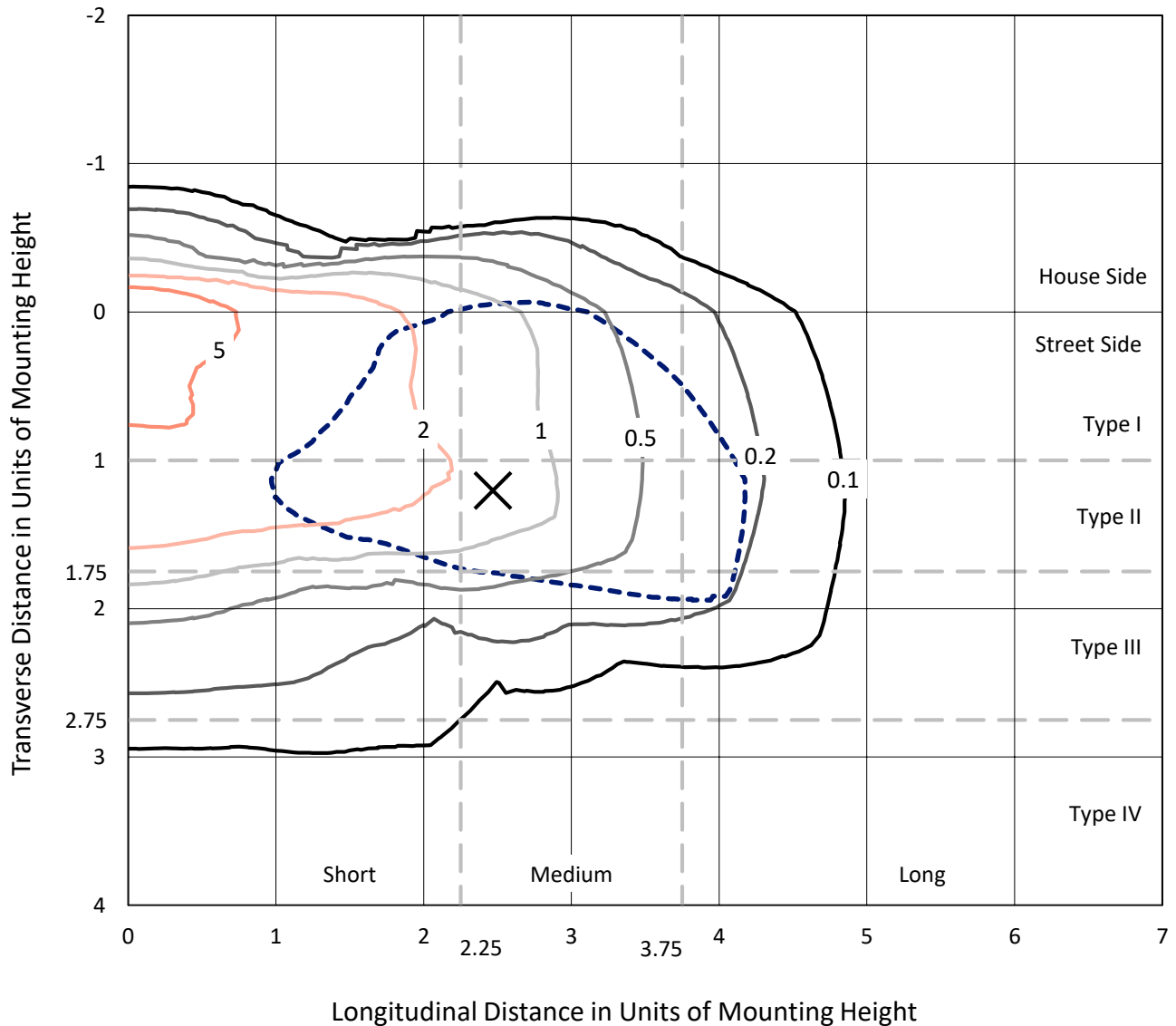


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### Iso-Footcandle Lines of Horizontal Illumination

× Max cd  
 - - - 1/2 Max cd

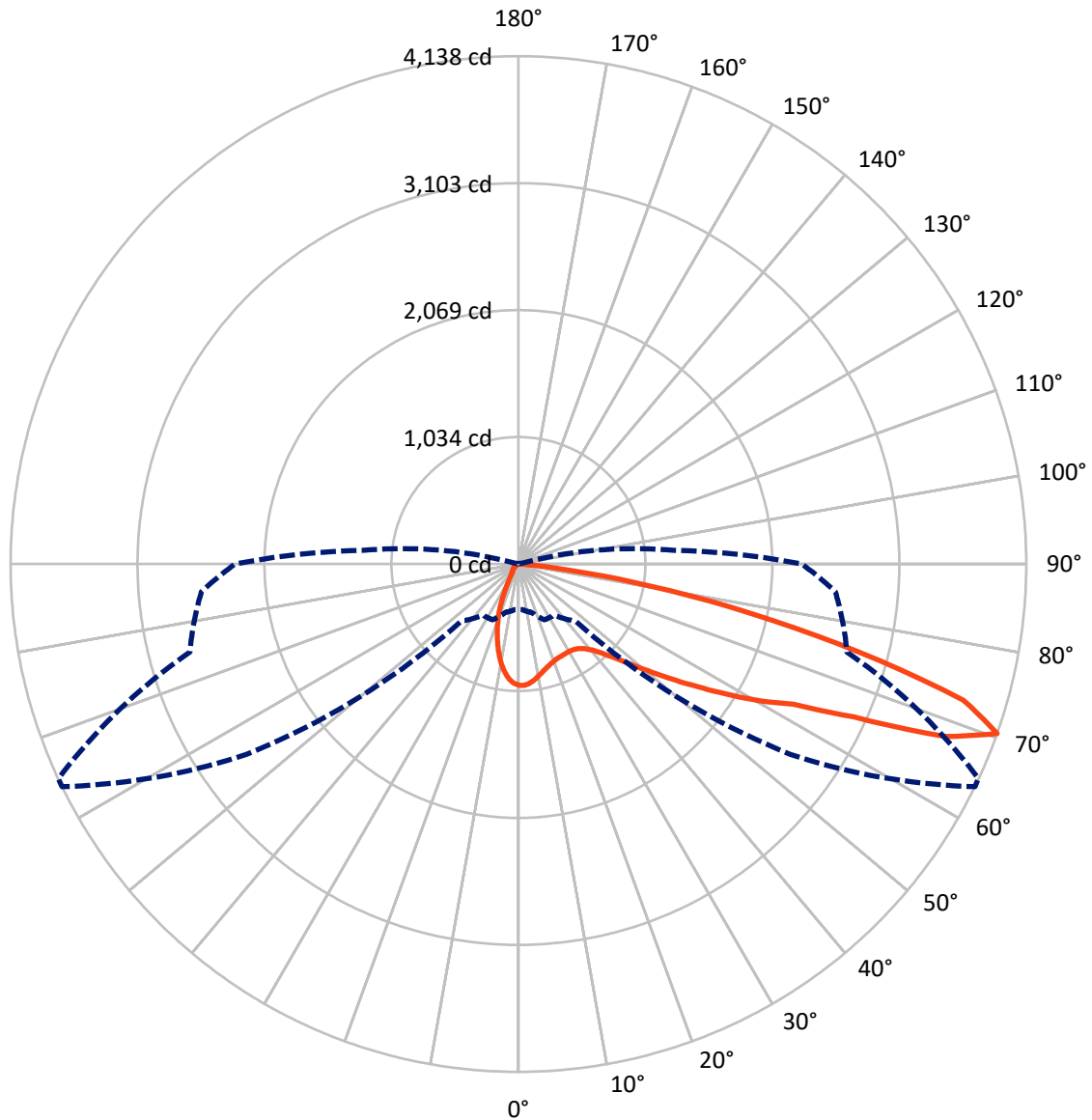


Based on 10 foot mounting height. Maximum calculated value = 9.9 fc  
 Type III - Medium - Non-Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 64-Deg Lateral      - - - Horizontal Cone Through 70-Deg Vertical

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**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	490.3	0.0	490.3
	% Fixture	12.8	0.0	12.8
<b>Street Side</b>	Lumens	3326.7	0.0	3326.7
	% Fixture	87.2	0.0	87.2
<b>Total</b>	Lumens	3817.0	0.0	3817.0
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	83.3	2.2
10°-20°	184.8	4.8
20°-30°	254.5	6.7
30°-40°	350.4	9.2
40°-50°	522.3	13.7
50°-60°	825.0	21.6
60°-70°	934.8	24.5
70°-80°	613.8	16.1
80°-90°	48.1	1.3
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°	3817.0	100.0
0°-180°	3817.0	100.0



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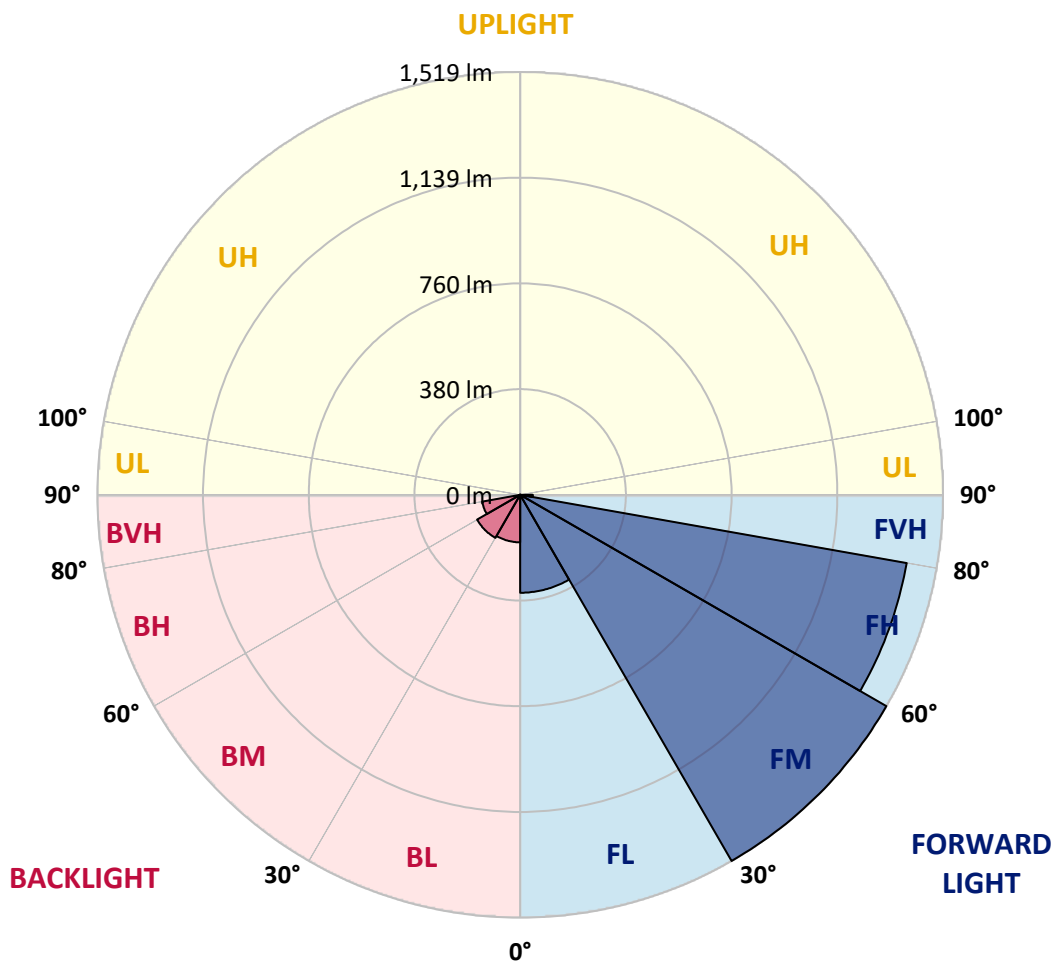
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	351.9	9.2			
FM	(30°-60°)	1519.1	39.8			
FH	(60°-80°)	1410.2	36.9			G1/1800
FVH	(80°-90°)	45.4	1.2			G1/100
BL	(0°-30°)	170.7	4.5	B1/500		
BM	(30°-60°)	178.6	4.7	B0/220		
BH	(60°-80°)	138.4	3.6	B1/500		G1/500
BVH	(80°-90°)	2.7	0.1			G0/10
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 Medium





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	64°	65°	75°	85°
0°	988.1	988.1	988.1	988.1	988.1	988.1	988.1	988.1	988.1	988.1	988.1
2.5°	960.6	960.6	965.3	970.0	972.6	980.0	985.4	989.4	989.4	992.1	987.4
5°	896.8	896.8	900.8	912.2	924.3	939.7	957.2	974.7	978.0	990.8	990.1
7.5°	837.7	843.1	849.8	861.2	874.0	896.8	921.0	951.2	954.5	985.4	992.1
10°	796.8	800.1	804.2	816.9	835.7	861.9	888.1	923.6	929.7	976.0	992.1
12.5°	763.9	764.6	770.6	784.7	802.8	828.3	857.9	896.8	904.2	959.2	989.4
15°	740.4	739.7	746.4	759.9	777.3	803.5	832.3	873.3	881.3	945.1	988.7
17.5°	726.3	727.0	732.3	742.4	759.2	784.0	813.6	853.8	861.9	933.7	992.1
20°	726.3	726.3	729.6	734.3	747.1	769.3	798.1	839.7	847.8	926.3	996.8
22.5°	740.4	739.0	741.7	737.7	743.7	759.2	788.7	830.3	839.1	923.0	1004.2
25°	765.9	763.2	765.2	756.5	749.8	756.5	782.7	826.3	835.7	923.6	1010.9
27.5°	801.5	801.5	797.4	785.4	768.6	761.2	782.0	823.6	833.0	923.6	1015.6
30°	851.1	849.1	843.1	831.0	804.8	780.0	788.7	823.6	833.0	924.3	1016.9
32.5°	900.8	902.2	905.5	893.4	857.9	812.2	804.8	829.7	837.7	923.6	1014.9
35°	951.2	951.8	966.6	967.9	922.3	863.9	832.3	845.8	851.1	930.3	1016.3
37.5°	995.5	998.8	1027.7	1041.8	1004.2	930.3	876.0	876.0	878.7	948.5	1024.3
40°	1045.1	1053.9	1088.8	1120.3	1105.5	1015.6	939.7	920.3	921.6	981.4	1042.4
42.5°	1102.9	1113.6	1159.2	1204.9	1204.2	1120.3	1020.3	990.8	992.1	1038.4	1079.4
45°	1176.0	1183.4	1241.1	1298.2	1310.3	1235.8	1121.7	1082.7	1084.1	1125.0	1151.2
47.5°	1265.3	1274.0	1329.7	1398.2	1429.1	1374.7	1253.2	1210.9	1206.9	1235.8	1254.6
50°	1382.1	1398.9	1431.8	1497.6	1572.1	1535.8	1407.6	1365.3	1359.9	1382.8	1388.8
52.5°	1493.5	1509.0	1522.4	1582.8	1727.1	1735.8	1596.9	1550.6	1545.2	1550.6	1558.0
55°	1510.3	1519.0	1529.1	1611.0	1852.6	1990.3	1812.4	1757.3	1741.9	1731.8	1756.7
57.5°	1376.7	1371.4	1404.9	1516.3	1873.5	2271.5	2103.7	1997.0	1982.2	1926.5	1901.6
60°	1090.1	1082.7	1114.3	1266.6	1756.7	2411.1	2507.8	2262.1	2225.9	2039.3	2015.1
62.5°	765.9	757.2	798.1	888.1	1362.6	2383.6	2963.6	2513.2	2441.3	2139.3	2106.4
65°	590.0	586.0	608.2	628.3	831.7	2064.8	3214.6	3003.2	2854.8	2248.0	2205.7
67.5°	462.5	467.9	495.4	553.8	537.0	1286.8	3191.1	3750.9	3602.6	2448.0	2421.2
70°	371.9	373.2	407.4	500.8	506.8	655.1	2701.8	4137.6	4135.6	2770.9	2592.4
72.5°	224.9	230.9	286.6	433.0	511.5	501.4	1816.4	3791.2	3843.6	2846.1	2338.0
75°	108.1	114.1	148.3	290.7	508.1	488.0	982.7	2870.3	2937.4	2552.1	1895.6
77.5°	40.3	45.6	68.5	142.3	376.6	447.1	516.9	1935.2	1988.2	1868.1	1284.1
80°	12.8	14.8	26.8	65.1	191.3	369.2	332.9	1091.4	1127.0	817.6	431.6
82.5°	1.3	2.0	7.4	22.2	73.8	187.9	195.3	410.8	428.9	159.8	87.3
85°	0.0	0.0	0.0	0.0	1.3	1.3	48.3	78.5	64.4	15.4	25.5
87.5°	0.0	0.0	0.0	0.0	0.0	0.7	1.3	2.0	2.0	2.0	2.7
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°	988.1	988.1	988.1	988.1	988.1	988.1	988.1	988.1	988.1	988.1	988.1
2.5°	986.7	986.7	982.0	974.7	965.3	951.8	948.5	937.7	937.7	929.0	927.7
5°	988.1	984.0	968.6	945.8	914.2	880.0	858.5	835.0	814.9	802.1	803.5
7.5°	988.1	979.4	948.5	898.1	839.1	780.0	735.0	682.7	658.5	642.4	649.8
10°	985.4	970.6	916.9	840.4	747.1	665.2	591.4	531.0	489.3	471.9	457.1
12.5°	979.4	957.9	877.3	768.6	649.1	541.7	439.7	360.5	305.4	277.9	274.5
15°	974.0	944.4	831.0	690.0	538.3	398.1	283.9	208.1	161.1	150.4	151.7
17.5°	972.6	931.7	786.7	606.8	430.3	265.1	163.8	132.2	125.5	122.8	122.2
20°	973.3	920.3	738.4	524.2	304.7	165.1	124.2	116.8	114.1	112.8	112.1
22.5°	976.0	907.5	690.7	437.7	208.1	120.8	110.8	106.1	102.7	100.7	100.0
25°	976.0	893.4	637.7	345.7	136.3	106.1	99.3	93.3	88.6	85.9	85.9
27.5°	974.0	877.3	582.6	262.5	108.1	94.6	87.3	79.2	73.2	69.8	69.8
30°	967.9	857.9	529.6	183.3	94.6	84.6	75.2	65.1	57.7	54.4	53.0
32.5°	959.2	837.0	468.5	128.9	85.2	73.8	63.1	52.4	45.6	41.6	41.6
35°	949.8	816.2	402.7	98.7	77.2	65.1	53.0	42.3	36.2	33.6	32.9
37.5°	945.1	794.1	338.3	85.2	69.1	55.7	43.0	34.2	29.5	27.5	26.8
40°	948.5	777.3	275.2	76.5	61.8	47.0	35.6	28.9	24.8	22.2	22.2
42.5°	968.6	767.9	215.5	69.8	55.0	39.6	29.5	23.5	19.5	17.5	17.5
45°	1009.6	774.6	163.8	63.8	47.0	32.9	24.8	18.8	14.8	12.8	12.8
47.5°	1078.0	801.5	124.2	58.4	40.3	26.8	20.1	14.8	11.4	10.1	9.4
50°	1178.0	854.5	97.3	53.0	33.6	22.8	16.8	11.4	8.7	7.4	7.4
52.5°	1322.4	946.5	83.2	47.0	27.5	18.8	13.4	8.7	6.7	5.4	5.4
55°	1499.6	1063.3	75.2	41.6	22.2	15.4	10.7	6.7	4.7	4.0	3.4
57.5°	1643.2	1155.9	70.5	36.2	18.8	13.4	8.1	5.4	4.0	2.7	2.7
60°	1770.1	1215.6	62.4	30.2	16.1	10.7	6.7	4.0	2.7	2.0	2.0
62.5°	1872.8	1254.6	51.7	24.2	13.4	8.7	5.4	3.4	2.7	2.0	2.0
65°	1989.6	1286.1	42.3	18.8	11.4	7.4	4.7	2.7	2.0	2.0	2.0
67.5°	2218.5	1356.6	31.5	14.8	8.7	6.0	4.0	2.7	2.0	1.3	1.3
70°	2307.8	1274.0	24.8	12.1	6.7	5.4	4.0	2.7	1.3	1.3	1.3
72.5°	1964.1	953.8	19.5	10.1	6.0	4.7	4.0	2.7	2.0	2.0	1.3
75°	1558.0	644.4	15.4	8.1	6.0	5.4	4.0	4.0	3.4	2.7	2.7
77.5°	994.8	285.3	12.1	6.7	6.0	6.7	6.0	4.0	4.0	3.4	3.4
80°	296.7	68.5	8.7	5.4	4.7	5.4	6.0	4.0	2.7	2.0	2.0
82.5°	64.4	16.1	5.4	2.7	3.4	2.7	4.0	4.0	2.7	2.0	2.0
85°	21.5	6.0	3.4	2.7	2.0	2.0	2.0	2.0	2.0	2.0	1.3
87.5°	1.3	2.0	2.0	1.3	1.3	1.3	1.3	0.7	0.7	1.3	1.3
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)