

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: P401453

Luminaire Tested: **ENV-SA1D-730-U-SL4-HSS**

Issue Date: 5/20/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P401453  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2004-754-6)  
Test Lab: INNOVATION CENTER  
Issue Date: 5/20/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: INVUE  
Catalog Number: ENV-SA1D-730-U-SL4-HSS  
Description: ENTRI LED LUMINAIRE  
(1) 70 CRI, 3000K, 800mA LIGHTSQUARE WITH 16 LEDS AND TYPE IV SPILL LIGHT  
ELIMINATOR OPTICS WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4219 lumens  
Efficiency: N/A  
Efficacy: 97.9 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')  
IES Classification: Type IV - Short - Semi-Cutoff  
BUG Rating: B1 - U0 - G1

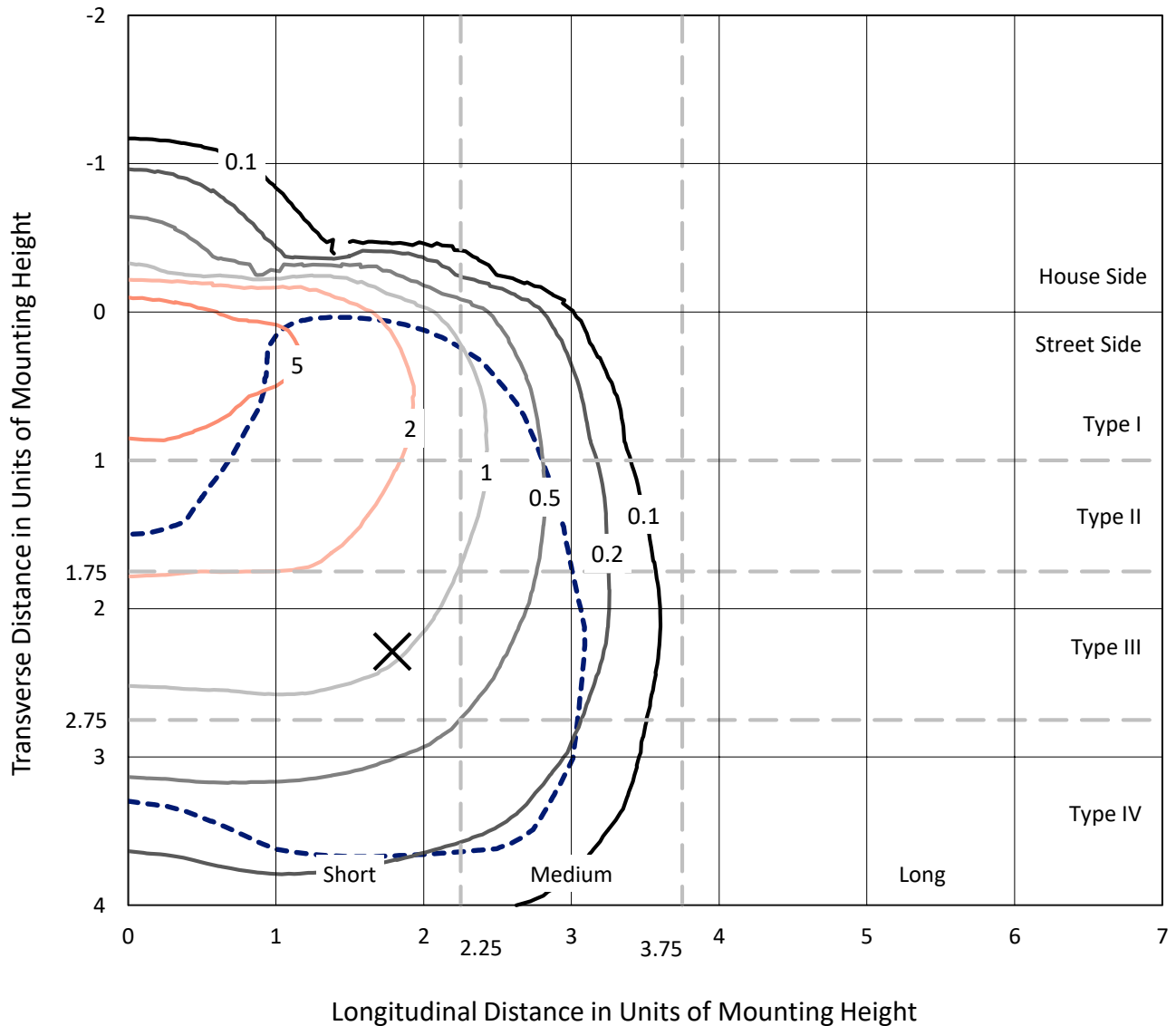
Input Watts (W): 43.1  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd  
 - - - 1/2 Max cd

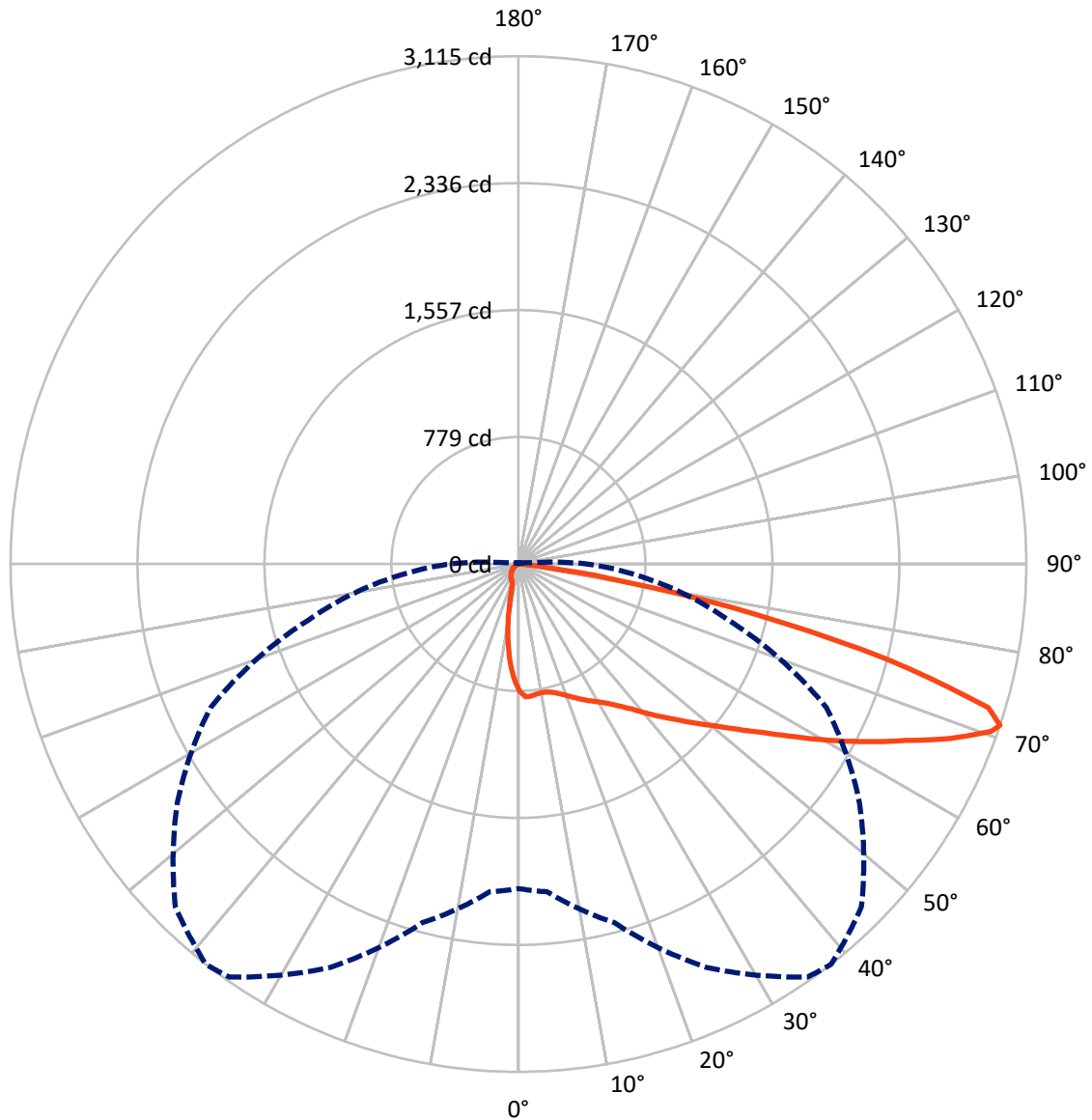


Based on 10 foot mounting height. Maximum calculated value = 8 fc  
 Type IV - Short - Semi-Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 38-Deg Lateral    - - - Horizontal Cone Through 71-Deg Vertical

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**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	360.4	0.0	360.4
	% Fixture	8.5	0.0	8.5
<b>Street Side</b>	Lumens	3858.6	0.0	3858.6
	% Fixture	91.5	0.0	91.5
<b>Total</b>	Lumens	4219.0	0.0	4219.0
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	65.7	1.6
10°-20°	159.1	3.8
20°-30°	255.1	6.0
30°-40°	388.0	9.2
40°-50°	604.7	14.3
50°-60°	884.3	21.0
60°-70°	1134.2	26.9
70°-80°	693.2	16.4
80°-90°	34.8	0.8
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°	4219.0	100.0
0°-180°	4219.0	100.0



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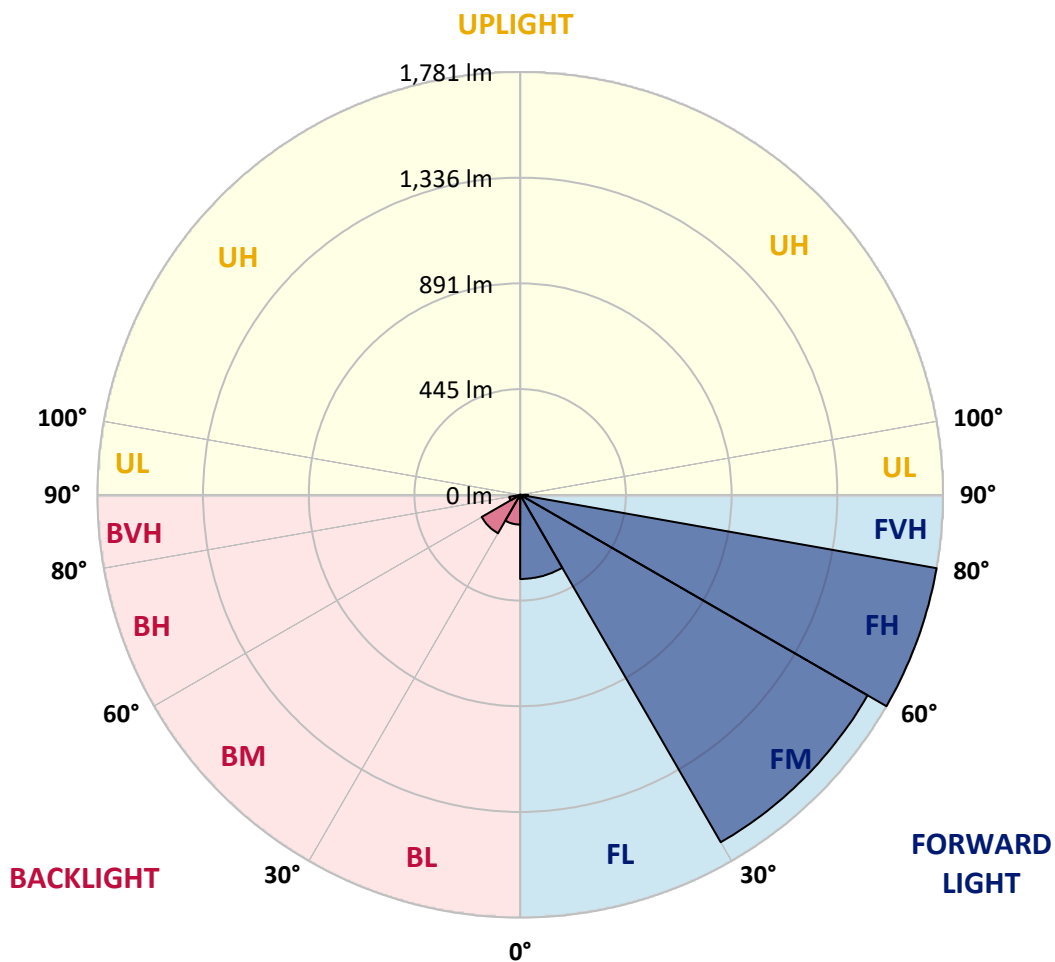
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	354.5	8.4			
FM	(30°-60°)	1689.8	40.1			
FH	(60°-80°)	1781.1	42.2			G1/1800
FVH	(80°-90°)	33.3	0.8			G1/100
BL	(0°-30°)	125.3	3.0	B1/500		
BM	(30°-60°)	187.2	4.4	B0/220		
BH	(60°-80°)	46.3	1.1	B0/110		G0/110
BVH	(80°-90°)	1.5	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-G1**

Type IV Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	38°	45°	55°	65°	75°	85°
0°	777.8	777.8	777.8	777.8	777.8	777.8	777.8	777.8	777.8	777.8	777.8
2.5°	823.8	821.6	823.8	821.6	817.3	815.1	812.1	804.1	796.8	788.0	774.9
5°	825.3	823.8	823.8	820.9	815.8	813.6	810.7	802.6	793.1	780.0	760.2
7.5°	817.3	816.5	815.1	812.1	806.3	804.8	802.6	793.1	783.6	769.7	745.6
10°	804.1	805.6	804.8	804.8	802.6	801.2	799.7	788.7	778.5	762.4	736.8
12.5°	791.7	793.1	796.8	802.6	804.8	805.6	805.6	794.6	782.2	764.6	738.3
15°	783.6	786.6	796.8	808.5	815.1	817.3	819.4	807.8	793.1	774.1	746.3
17.5°	781.4	785.8	805.6	823.8	836.3	837.7	837.7	823.1	807.8	785.8	755.9
20°	788.7	794.6	820.2	845.8	861.1	862.6	859.7	840.6	822.4	798.2	763.9
22.5°	810.7	815.8	845.0	875.0	889.6	891.1	884.5	858.2	838.5	818.7	774.9
25°	848.7	851.6	883.0	911.6	919.6	921.8	910.8	879.4	856.7	838.5	790.2
27.5°	899.1	900.6	929.1	950.3	951.8	951.0	939.3	906.4	883.8	868.4	813.6
30°	951.8	954.0	977.3	991.2	985.4	982.5	972.2	937.1	916.7	905.0	847.2
32.5°	1000.7	1002.9	1028.5	1035.8	1022.7	1020.5	1013.2	975.9	958.3	964.2	895.5
35°	1049.0	1049.0	1078.2	1081.9	1070.2	1070.2	1070.2	1025.6	1022.7	1042.4	962.7
37.5°	1092.1	1099.4	1130.1	1128.7	1126.5	1127.9	1132.3	1098.7	1108.9	1142.5	1051.2
40°	1128.7	1138.2	1179.1	1182.8	1192.3	1200.3	1206.9	1189.3	1213.5	1268.3	1164.5
42.5°	1161.6	1172.5	1225.2	1242.0	1268.3	1279.2	1291.7	1287.3	1340.6	1440.8	1309.2
45°	1204.0	1215.6	1269.7	1309.9	1346.5	1361.1	1388.9	1407.9	1496.4	1610.4	1465.6
47.5°	1260.2	1268.3	1318.0	1381.6	1431.3	1457.6	1500.7	1549.7	1657.2	1790.2	1605.3
50°	1337.0	1337.7	1375.0	1457.6	1531.4	1559.9	1634.5	1698.1	1832.6	1948.8	1706.1
52.5°	1421.8	1417.4	1446.6	1551.2	1644.7	1683.5	1771.2	1859.7	1994.9	2063.6	1751.5
55°	1502.2	1504.4	1522.7	1650.6	1787.3	1824.6	1935.7	2025.6	2143.3	2133.8	1776.3
57.5°	1595.0	1594.3	1617.7	1759.5	1954.0	1997.1	2113.3	2187.1	2233.2	2184.2	1780.7
60°	1682.8	1680.6	1716.4	1889.6	2131.6	2195.2	2299.7	2296.8	2323.1	2216.4	1777.1
62.5°	1761.0	1766.1	1829.0	2040.9	2330.4	2399.1	2451.8	2415.2	2422.5	2253.7	1731.7
65°	1856.0	1865.5	1967.1	2224.4	2576.0	2608.9	2629.4	2570.2	2497.1	2223.7	1594.3
67.5°	1975.9	2004.4	2147.7	2494.9	2831.9	2854.5	2855.3	2663.8	2494.2	2072.4	1340.6
70°	2023.4	2053.4	2281.4	2709.1	3047.5	3076.0	2986.9	2649.1	2297.5	1622.8	905.0
71°	1990.5	2017.6	2277.8	2729.5	3092.1	3114.8	2975.2	2553.4	2083.3	1337.0	701.0
72.5°	1752.9	1823.1	2137.4	2600.9	3012.4	3013.2	2785.8	2327.5	1657.2	834.8	352.3
75°	946.6	1031.4	1566.5	1979.5	2323.8	2342.1	2143.3	1616.2	801.9	216.4	85.5
77.5°	312.1	351.6	702.5	1027.8	1457.6	1486.1	1310.7	717.8	252.9	73.1	44.6
80°	195.9	200.3	237.6	432.0	648.4	672.5	539.5	290.9	114.0	40.2	30.7
82.5°	32.9	39.5	111.8	127.2	228.8	181.3	122.8	148.4	53.4	18.3	26.3
85°	0.0	0.0	0.7	0.7	3.7	0.7	0.7	30.0	2.9	2.9	13.9
87.5°	0.0	0.0	0.7	0.7	0.7	0.7	0.7	0.7	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



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**CANDELA DISTRIBUTION (continued):**

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	777.8	777.8	777.8	777.8	777.8	777.8	777.8	777.8	777.8	777.8	777.8
2.5°	769.0	763.2	751.5	739.0	723.7	710.5	706.1	696.6	692.3	688.6	688.6
5°	747.8	737.6	712.7	687.1	662.3	636.0	611.8	589.2	578.2	562.9	570.2
7.5°	730.3	712.7	677.6	637.4	586.3	534.4	494.2	459.1	429.8	420.3	413.7
10°	717.8	695.9	644.7	583.3	508.8	434.9	372.8	315.1	281.4	261.0	261.0
12.5°	716.4	688.6	622.1	527.8	420.3	320.2	243.4	188.6	161.6	149.1	148.4
15°	721.5	687.9	601.6	477.3	339.2	222.2	152.0	127.9	121.3	119.9	119.9
17.5°	725.9	687.1	577.5	420.3	250.0	146.2	120.6	116.2	114.8	114.0	114.0
20°	730.3	683.5	549.7	356.0	176.9	119.2	112.6	110.4	109.6	108.9	108.9
22.5°	736.1	679.8	521.2	282.9	130.8	111.1	107.5	105.3	104.5	104.5	104.5
25°	744.2	677.6	486.1	214.2	112.6	105.3	101.6	100.1	100.1	99.4	99.4
27.5°	759.5	679.8	448.1	153.5	105.3	99.4	97.2	95.8	95.8	95.0	95.0
30°	780.7	686.4	400.6	119.9	99.4	93.6	91.4	90.6	89.9	89.9	89.9
32.5°	810.7	696.6	348.7	102.3	92.1	87.7	85.5	84.8	84.8	84.8	84.1
35°	856.7	717.8	285.1	93.6	85.5	81.1	78.9	78.9	78.9	78.2	78.9
37.5°	926.9	752.2	220.8	86.3	78.2	74.6	73.1	72.4	72.4	72.4	72.4
40°	1015.4	807.8	160.8	79.7	71.6	68.0	66.5	65.8	65.1	65.1	65.1
42.5°	1129.4	869.2	117.0	72.4	65.8	62.1	60.7	59.2	57.7	57.0	57.0
45°	1247.8	942.3	91.4	66.5	59.9	57.0	55.6	53.4	51.2	49.0	49.0
47.5°	1362.6	998.5	78.2	59.9	54.8	51.9	50.4	47.5	43.9	41.7	41.7
50°	1434.9	1016.1	70.2	54.1	49.7	47.5	45.3	41.7	36.5	34.4	34.4
52.5°	1457.6	983.9	62.9	49.0	45.3	43.1	40.2	35.1	30.0	27.0	27.0
55°	1466.4	921.8	55.6	45.3	40.9	38.0	34.4	29.2	24.1	21.2	21.2
57.5°	1455.4	834.1	49.7	40.9	36.5	33.6	29.2	23.4	18.3	16.1	16.1
60°	1418.1	706.9	44.6	36.5	32.2	28.5	24.1	18.3	13.9	11.0	11.7
62.5°	1317.3	546.8	38.7	30.7	27.8	24.1	19.0	13.9	8.8	7.3	7.3
65°	1156.4	378.7	32.9	25.6	23.4	19.7	14.6	9.5	5.1	4.4	4.4
67.5°	939.3	244.9	25.6	21.2	19.7	16.1	11.0	5.8	2.9	2.9	2.2
70°	589.9	121.3	20.5	16.1	16.1	12.4	8.0	3.7	2.2	2.2	2.2
71°	417.4	82.6	18.3	14.6	14.6	11.7	7.3	2.9	2.2	2.2	2.2
72.5°	188.6	51.9	15.4	13.2	12.4	9.5	6.6	2.9	2.9	2.9	2.9
75°	59.2	28.5	11.0	10.2	10.2	8.0	5.8	3.7	3.7	3.7	3.7
77.5°	39.5	21.9	7.3	6.6	8.0	8.0	5.8	4.4	4.4	4.4	4.4
80°	32.2	11.7	4.4	4.4	5.8	7.3	5.8	4.4	5.1	4.4	4.4
82.5°	31.4	5.8	1.5	2.2	3.7	4.4	4.4	3.7	4.4	4.4	4.4
85°	13.2	1.5	0.7	1.5	1.5	2.2	2.2	2.9	3.7	3.7	3.7
87.5°	0.0	0.0	0.0	0.0	0.7	0.7	1.5	1.5	2.2	2.9	2.9
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)