

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: P401759

Luminaire Tested: **ENT-SA1E-830-U-SL4-HSS**

Issue Date: 5/20/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P401759  
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: ENT-SA1E-830-U-SL4-HSS  
Description: ENTRI LED LUMINAIRE  
(1) 80 CRI, 3000K, 1050mA 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: 4587 lumens  
Efficiency: N/A  
Efficacy: 80.2 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 - 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

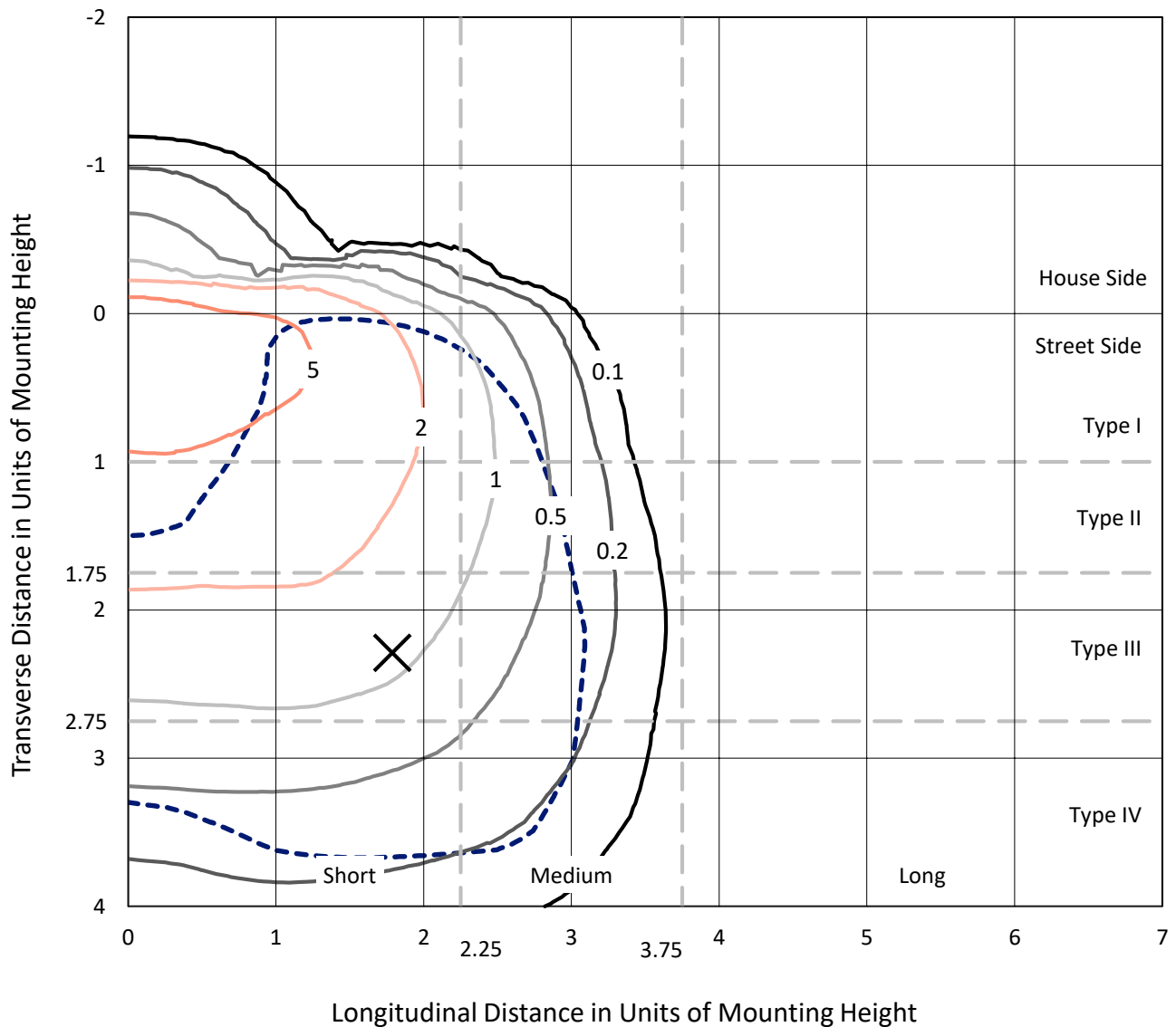


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### Iso-Footcandle Lines of Horizontal Illumination

× Max cd  
 - - - 1/2 Max cd

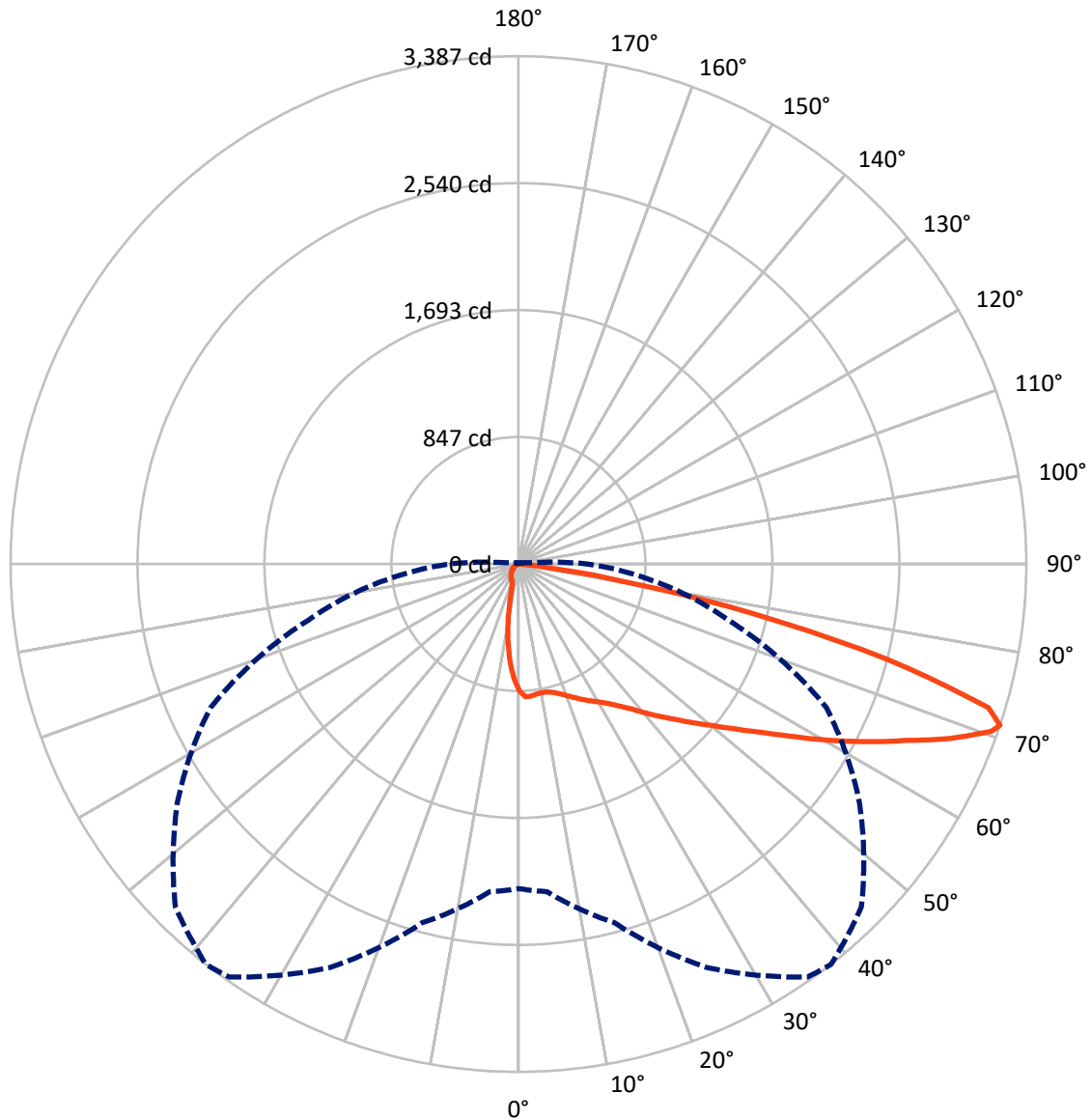


Based on 10 foot mounting height. Maximum calculated value = 8.7 fc  
 Type IV - Short - Semi-Cutoff

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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	391.8	0.0	391.8
	% Fixture	8.5	0.0	8.5
<b>Street Side</b>	Lumens	4195.2	0.0	4195.2
	% Fixture	91.5	0.0	91.5
<b>Total</b>	Lumens	4587.0	0.0	4587.0
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	71.4	1.6
10°-20°	172.9	3.8
20°-30°	277.3	6.0
30°-40°	421.8	9.2
40°-50°	657.4	14.3
50°-60°	961.4	21.0
60°-70°	1233.1	26.9
70°-80°	753.7	16.4
80°-90°	37.9	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°	4587.0	100.0
0°-180°	4587.0	100.0



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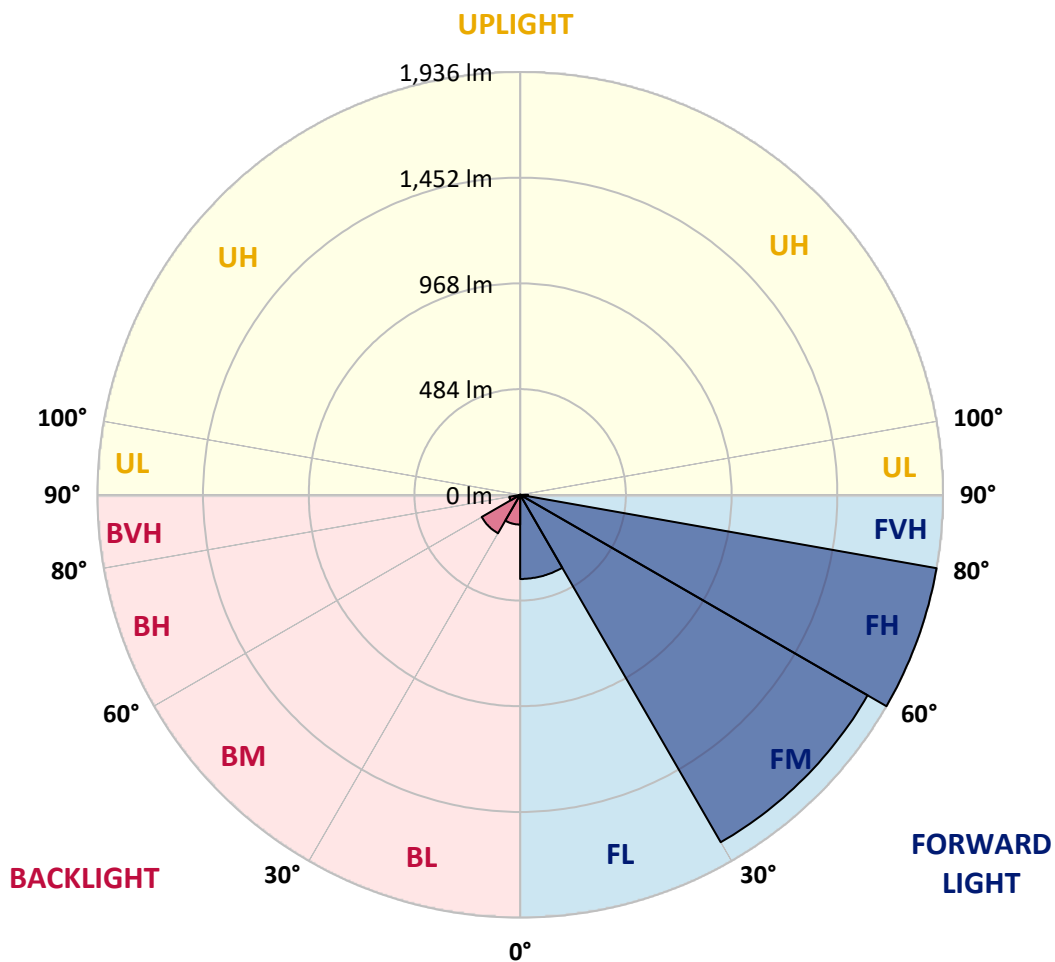
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	385.4	8.4			
FM	(30°-60°)	1837.1	40.1			
FH	(60°-80°)	1936.4	42.2			G2/5000
FVH	(80°-90°)	36.2	0.8			G1/100
BL	(0°-30°)	136.3	3.0	B1/500		
BM	(30°-60°)	203.5	4.4	B0/220		
BH	(60°-80°)	50.4	1.1	B0/110		G0/110
BVH	(80°-90°)	1.7	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 IV Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	38°	45°	55°	65°	75°	85°
0°	845.6	845.6	845.6	845.6	845.6	845.6	845.6	845.6	845.6	845.6	845.6
2.5°	895.7	893.3	895.7	893.3	888.5	886.2	883.0	874.2	866.3	856.7	842.4
5°	897.3	895.7	895.7	892.5	886.9	884.6	881.4	872.6	862.3	848.0	826.5
7.5°	888.5	887.7	886.2	883.0	876.6	875.0	872.6	862.3	852.0	836.9	810.7
10°	874.2	875.8	875.0	875.0	872.6	871.1	869.5	857.5	846.4	828.9	801.1
12.5°	860.7	862.3	866.3	872.6	875.0	875.8	875.8	863.9	850.4	831.3	802.7
15°	852.0	855.2	866.3	879.0	886.2	888.5	890.9	878.2	862.3	841.6	811.4
17.5°	849.6	854.4	875.8	895.7	909.2	910.8	910.8	894.9	878.2	854.4	821.8
20°	857.5	863.9	891.7	919.5	936.2	937.8	934.6	914.0	894.1	867.9	830.5
22.5°	881.4	886.9	918.7	951.3	967.2	968.8	961.7	933.0	911.6	890.1	842.4
25°	922.7	925.9	960.1	991.1	999.8	1002.2	990.3	956.1	931.5	911.6	859.1
27.5°	977.6	979.1	1010.1	1033.2	1034.8	1034.0	1021.3	985.5	960.9	944.2	884.6
30°	1034.8	1037.2	1062.6	1077.7	1071.3	1068.2	1057.0	1018.9	996.6	983.9	921.1
32.5°	1088.0	1090.4	1118.2	1126.2	1111.9	1109.5	1101.5	1061.0	1041.9	1048.3	973.6
35°	1140.5	1140.5	1172.3	1176.2	1163.5	1163.5	1163.5	1115.0	1111.9	1133.3	1046.7
37.5°	1187.4	1195.3	1228.7	1227.1	1224.7	1226.3	1231.1	1194.5	1205.6	1242.2	1142.9
40°	1227.1	1237.4	1281.9	1285.9	1296.3	1305.0	1312.1	1293.1	1319.3	1378.9	1266.0
42.5°	1262.9	1274.8	1332.0	1350.3	1378.9	1390.8	1404.3	1399.6	1457.6	1566.5	1423.4
45°	1309.0	1321.7	1380.5	1424.2	1463.9	1479.8	1510.0	1530.7	1626.9	1750.9	1593.5
47.5°	1370.2	1378.9	1432.9	1502.1	1556.1	1584.7	1631.6	1684.9	1801.7	1946.4	1745.3
50°	1453.6	1454.4	1494.9	1584.7	1665.0	1696.0	1777.1	1846.2	1992.5	2118.8	1855.0
52.5°	1545.8	1541.0	1572.8	1686.5	1788.2	1830.3	1925.7	2021.9	2168.9	2243.6	1904.2
55°	1633.2	1635.6	1655.5	1794.6	1943.2	1983.7	2104.5	2202.3	2330.2	2319.9	1931.3
57.5°	1734.2	1733.4	1758.8	1913.0	2124.4	2171.3	2297.6	2377.9	2428.0	2374.7	1936.0
60°	1829.5	1827.1	1866.1	2054.4	2317.5	2386.7	2500.3	2497.1	2525.7	2409.7	1932.1
62.5°	1914.6	1920.1	1988.5	2219.0	2533.7	2608.4	2665.6	2625.9	2633.8	2450.2	1882.8
65°	2017.9	2028.2	2138.7	2418.4	2800.7	2836.5	2858.7	2794.4	2714.9	2417.7	1733.4
67.5°	2148.2	2179.2	2335.0	2712.5	3078.9	3103.5	3104.3	2896.1	2711.7	2253.1	1457.6
70°	2199.9	2232.5	2480.4	2945.4	3313.3	3344.3	3247.4	2880.2	2497.9	1764.4	983.9
71°	2164.1	2193.5	2476.5	2967.6	3361.8	3386.5	3234.7	2776.1	2265.1	1453.6	762.2
72.5°	1905.8	1982.1	2323.9	2827.7	3275.2	3276.0	3028.8	2530.5	1801.7	907.6	383.1
75°	1029.2	1121.4	1703.2	2152.2	2526.5	2546.4	2330.2	1757.2	871.8	235.2	93.0
77.5°	339.4	382.3	763.8	1117.4	1584.7	1615.7	1425.0	780.5	275.0	79.5	48.5
80°	213.0	217.8	258.3	469.7	705.0	731.2	586.5	316.3	124.0	43.7	33.4
82.5°	35.8	42.9	121.6	138.3	248.8	197.1	133.5	161.3	58.0	19.9	28.6
85°	0.0	0.0	0.8	0.8	4.0	0.8	0.8	32.6	3.2	3.2	15.1
87.5°	0.0	0.0	0.8	0.8	0.8	0.8	0.8	0.8	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°	845.6	845.6	845.6	845.6	845.6	845.6	845.6	845.6	845.6	845.6	845.6
2.5°	836.1	829.7	817.0	803.5	786.8	772.5	767.7	757.4	752.6	748.7	748.7
5°	813.0	801.9	774.9	747.1	720.1	691.4	665.2	640.6	628.7	612.0	619.9
7.5°	794.0	774.9	736.7	693.0	637.4	581.0	537.3	499.1	467.3	457.0	449.8
10°	780.5	756.6	701.0	634.2	553.2	472.9	405.3	342.5	306.0	283.7	283.7
12.5°	778.9	748.7	676.3	573.8	457.0	348.1	264.7	205.0	175.6	162.1	161.3
15°	784.4	747.9	654.1	519.0	368.8	241.6	165.3	139.1	131.9	130.3	130.3
17.5°	789.2	747.1	627.9	457.0	271.8	159.0	131.1	126.4	124.8	124.0	124.0
20°	794.0	743.1	597.7	387.0	192.3	129.5	122.4	120.0	119.2	118.4	118.4
22.5°	800.3	739.1	566.7	307.6	142.3	120.8	116.8	114.4	113.7	113.7	113.7
25°	809.1	736.7	528.5	232.9	122.4	114.4	110.5	108.9	108.9	108.1	108.1
27.5°	825.8	739.1	487.2	166.9	114.4	108.1	105.7	104.1	104.1	103.3	103.3
30°	848.8	746.3	435.5	130.3	108.1	101.7	99.3	98.5	97.8	97.8	97.8
32.5°	881.4	757.4	379.1	111.3	100.1	95.4	93.0	92.2	92.2	92.2	91.4
35°	931.5	780.5	310.0	101.7	93.0	88.2	85.8	85.8	85.8	85.0	85.8
37.5°	1007.8	817.8	240.0	93.8	85.0	81.1	79.5	78.7	78.7	78.7	78.7
40°	1103.9	878.2	174.8	86.6	77.9	73.9	72.3	71.5	70.7	70.7	70.7
42.5°	1227.9	945.0	127.2	78.7	71.5	67.6	66.0	64.4	62.8	62.0	62.0
45°	1356.7	1024.4	99.3	72.3	65.2	62.0	60.4	58.0	55.6	53.2	53.2
47.5°	1481.4	1085.6	85.0	65.2	59.6	56.4	54.8	51.7	47.7	45.3	45.3
50°	1560.1	1104.7	76.3	58.8	54.0	51.7	49.3	45.3	39.7	37.4	37.4
52.5°	1584.7	1069.7	68.3	53.2	49.3	46.9	43.7	38.1	32.6	29.4	29.4
55°	1594.3	1002.2	60.4	49.3	44.5	41.3	37.4	31.8	26.2	23.0	23.0
57.5°	1582.4	906.8	54.0	44.5	39.7	36.6	31.8	25.4	19.9	17.5	17.5
60°	1541.8	768.5	48.5	39.7	35.0	31.0	26.2	19.9	15.1	11.9	12.7
62.5°	1432.2	594.5	42.1	33.4	30.2	26.2	20.7	15.1	9.5	7.9	7.9
65°	1257.3	411.7	35.8	27.8	25.4	21.5	15.9	10.3	5.6	4.8	4.8
67.5°	1021.3	266.2	27.8	23.0	21.5	17.5	11.9	6.4	3.2	3.2	2.4
70°	641.4	131.9	22.3	17.5	17.5	13.5	8.7	4.0	2.4	2.4	2.4
71°	453.8	89.8	19.9	15.9	15.9	12.7	7.9	3.2	2.4	2.4	2.4
72.5°	205.0	56.4	16.7	14.3	13.5	10.3	7.2	3.2	3.2	3.2	3.2
75°	64.4	31.0	11.9	11.1	11.1	8.7	6.4	4.0	4.0	4.0	4.0
77.5°	42.9	23.8	7.9	7.2	8.7	8.7	6.4	4.8	4.8	4.8	4.8
80°	35.0	12.7	4.8	4.8	6.4	7.9	6.4	4.8	5.6	4.8	4.8
82.5°	34.2	6.4	1.6	2.4	4.0	4.8	4.8	4.0	4.8	4.8	4.8
85°	14.3	1.6	0.8	1.6	1.6	2.4	2.4	3.2	4.0	4.0	4.0
87.5°	0.0	0.0	0.0	0.0	0.8	0.8	1.6	1.6	2.4	3.2	3.2
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)