

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: P401741

Luminaire Tested: **ENV-SA1E-827-U-SL4-HSS**

Issue Date: 5/20/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P401741  
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-SA1E-827-U-SL4-HSS  
Description: ENTRI LED LUMINAIRE  
(1) 80 CRI, 2700K, 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: 4243 lumens  
Efficiency: N/A  
Efficacy: 74.2 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 - G1

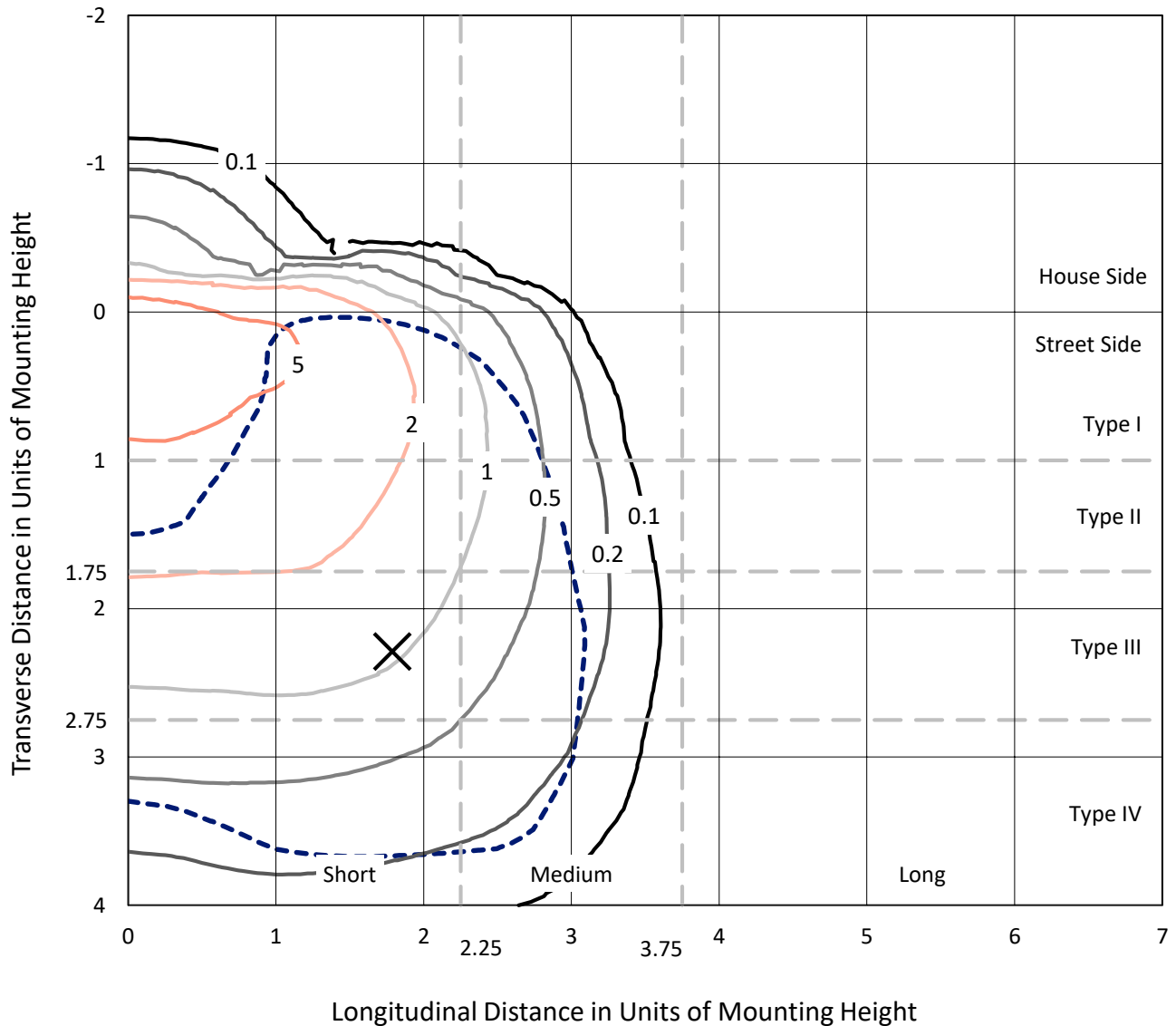
Input Watts (W): 57.2  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Iso-Footcandle Lines of Horizontal Illumination

× Max cd  
 - - - 1/2 Max cd

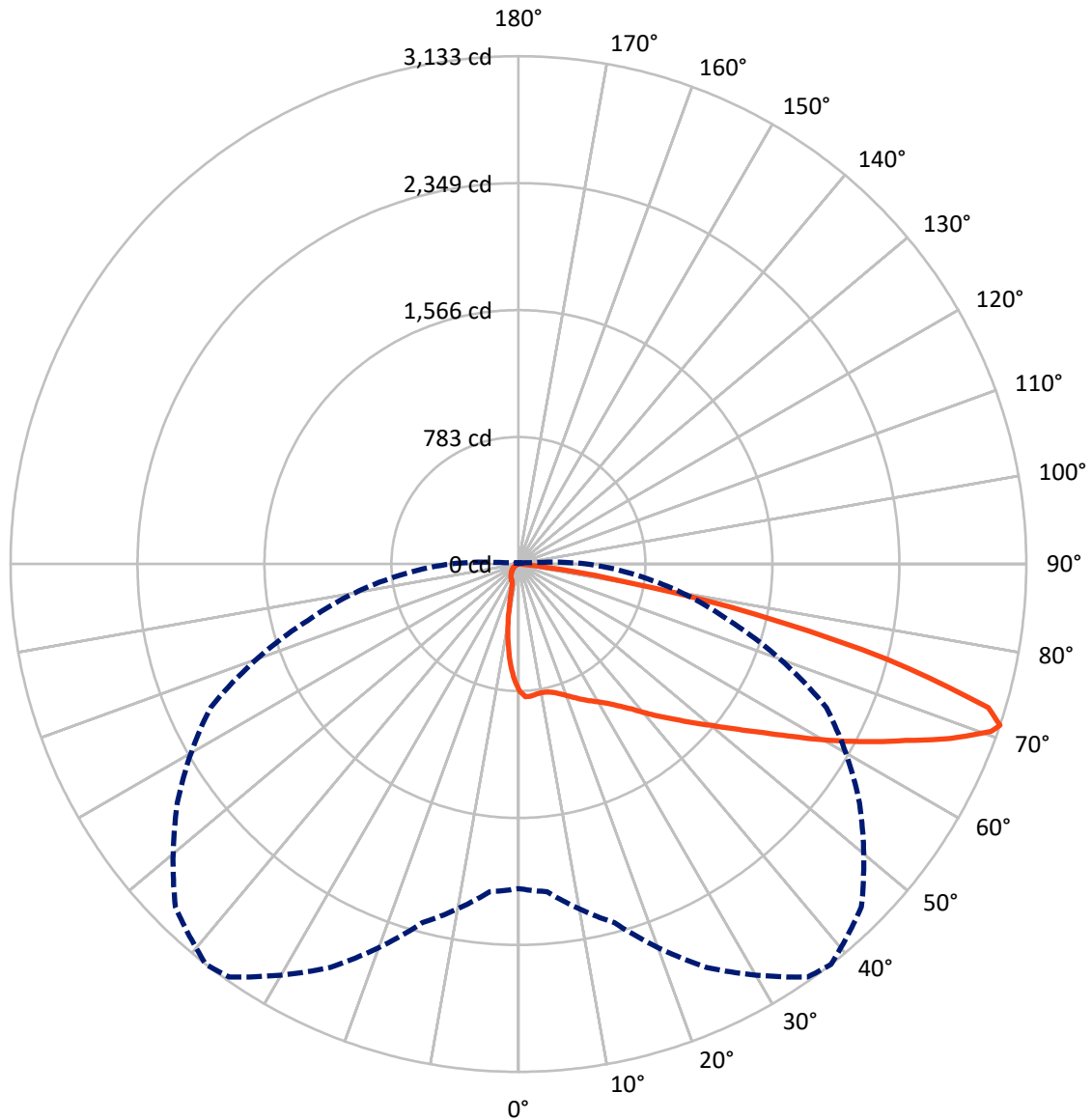


Based on 10 foot mounting height. Maximum calculated value = 8 fc  
 Type IV - Short - Semi-Cutoff

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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	362.4	0.0	362.4
	% Fixture	8.5	0.0	8.5
<b>Street Side</b>	Lumens	3880.6	0.0	3880.6
	% Fixture	91.5	0.0	91.5
<b>Total</b>	Lumens	4243.0	0.0	4243.0
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	66.1	1.6
10°-20°	160.0	3.8
20°-30°	256.5	6.0
30°-40°	390.2	9.2
40°-50°	608.1	14.3
50°-60°	889.3	21.0
60°-70°	1140.6	26.9
70°-80°	697.2	16.4
80°-90°	35.0	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°	4243.0	100.0
0°-180°	4243.0	100.0



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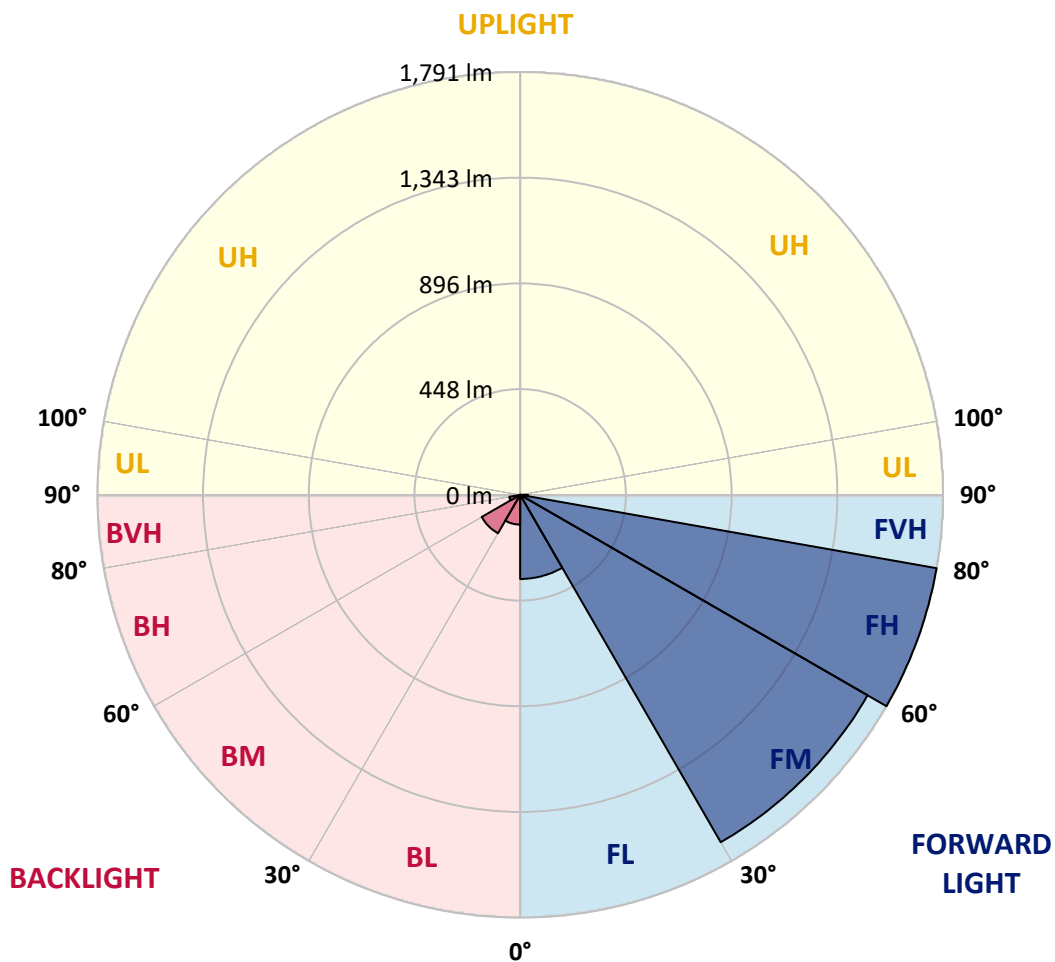
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	356.5	8.4			
FM	(30°-60°)	1699.4	40.1			
FH	(60°-80°)	1791.2	42.2			G1/1800
FVH	(80°-90°)	33.4	0.8			G1/100
BL	(0°-30°)	126.0	3.0	B1/500		
BM	(30°-60°)	188.3	4.4	B0/220		
BH	(60°-80°)	46.6	1.1	B0/110		G0/110
BVH	(80°-90°)	1.6	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-G1**

Type IV Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	38°	45°	55°	65°	75°	85°
0°	782.2	782.2	782.2	782.2	782.2	782.2	782.2	782.2	782.2	782.2	782.2
2.5°	828.5	826.3	828.5	826.3	821.9	819.7	816.8	808.7	801.3	792.5	779.3
5°	830.0	828.5	828.5	825.6	820.4	818.2	815.3	807.2	797.6	784.4	764.6
7.5°	821.9	821.2	819.7	816.8	810.9	809.4	807.2	797.6	788.1	774.1	749.9
10°	808.7	810.1	809.4	809.4	807.2	805.7	804.3	793.2	782.9	766.8	741.0
12.5°	796.2	797.6	801.3	807.2	809.4	810.1	810.1	799.1	786.6	769.0	742.5
15°	788.1	791.0	801.3	813.1	819.7	821.9	824.1	812.3	797.6	778.5	750.6
17.5°	785.9	790.3	810.1	828.5	841.0	842.5	842.5	827.8	812.3	790.3	760.2
20°	793.2	799.1	824.8	850.6	866.0	867.5	864.5	845.4	827.0	802.8	768.2
22.5°	815.3	820.4	849.8	880.0	894.7	896.2	889.5	863.1	843.2	823.4	779.3
25°	853.5	856.5	888.1	916.7	924.8	927.0	916.0	884.4	861.6	843.2	794.7
27.5°	904.2	905.7	934.4	955.7	957.2	956.4	944.7	911.6	888.8	873.4	818.2
30°	957.2	959.4	982.9	996.9	991.0	988.0	977.8	942.5	921.9	910.1	852.0
32.5°	1006.4	1008.6	1034.4	1041.7	1028.5	1026.3	1018.9	981.4	963.8	969.7	900.6
35°	1054.9	1054.9	1084.4	1088.0	1076.3	1076.3	1076.3	1031.4	1028.5	1048.3	968.2
37.5°	1098.3	1105.7	1136.6	1135.1	1132.9	1134.3	1138.8	1104.9	1115.2	1149.0	1057.2
40°	1135.1	1144.6	1185.8	1189.5	1199.0	1207.1	1213.7	1196.1	1220.4	1275.5	1171.1
42.5°	1168.2	1179.2	1232.1	1249.0	1275.5	1286.5	1299.0	1294.6	1348.3	1449.0	1316.7
45°	1210.8	1222.6	1277.0	1317.4	1354.2	1368.9	1396.8	1415.9	1504.9	1619.5	1474.0
47.5°	1267.4	1275.5	1325.5	1389.4	1439.4	1465.9	1509.3	1558.5	1666.6	1800.4	1614.4
50°	1344.6	1345.3	1382.8	1465.9	1540.2	1568.8	1643.8	1707.8	1843.0	1959.9	1715.9
52.5°	1429.9	1425.5	1454.9	1560.0	1654.1	1693.1	1781.3	1870.2	2006.2	2075.3	1761.4
55°	1510.7	1512.9	1531.3	1660.0	1797.5	1834.9	1946.7	2037.1	2155.5	2145.9	1786.4
57.5°	1604.1	1603.4	1626.9	1769.5	1965.1	2008.4	2125.3	2199.6	2245.9	2196.6	1790.8
60°	1692.3	1690.1	1726.1	1900.4	2143.7	2207.7	2312.8	2309.9	2336.3	2229.0	1787.2
62.5°	1771.0	1776.1	1839.4	2052.6	2343.7	2412.8	2465.7	2429.0	2436.3	2266.5	1741.6
65°	1866.6	1876.1	1978.3	2237.1	2590.7	2623.8	2644.4	2584.8	2511.3	2236.3	1603.4
67.5°	1987.1	2015.8	2159.9	2509.1	2848.0	2870.8	2871.5	2678.9	2508.4	2084.2	1348.3
70°	2034.9	2065.1	2294.4	2724.5	3064.9	3093.5	3003.8	2664.2	2310.6	1632.0	910.1
71°	2001.8	2029.0	2290.7	2745.1	3109.7	3132.5	2992.1	2567.9	2095.2	1344.6	705.0
72.5°	1762.9	1833.5	2149.6	2615.7	3029.6	3030.3	2801.7	2340.7	1666.6	839.5	354.3
75°	952.0	1037.3	1575.4	1990.8	2337.1	2355.4	2155.5	1625.4	806.5	217.6	86.0
77.5°	313.9	353.6	706.5	1033.6	1465.9	1494.6	1318.1	721.9	254.4	73.5	44.8
80°	197.0	201.4	238.9	434.5	652.1	676.3	542.5	292.6	114.7	40.4	30.9
82.5°	33.1	39.7	112.5	127.9	230.1	182.3	123.5	149.2	53.7	18.4	26.5
85°	0.0	0.0	0.7	0.7	3.7	0.7	0.7	30.1	2.9	2.9	14.0
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°	782.2	782.2	782.2	782.2	782.2	782.2	782.2	782.2	782.2	782.2	782.2
2.5°	773.4	767.5	755.7	743.2	727.8	714.6	710.2	700.6	696.2	692.5	692.5
5°	752.1	741.8	716.8	691.0	666.1	639.6	615.3	592.5	581.5	566.1	573.4
7.5°	734.4	716.8	681.5	641.1	589.6	537.4	497.0	461.7	432.3	422.7	416.1
10°	721.9	699.9	648.4	586.7	511.7	437.4	374.9	316.9	283.0	262.5	262.5
12.5°	720.5	692.5	625.6	530.8	422.7	322.0	244.8	189.7	162.5	150.0	149.2
15°	725.6	691.8	605.0	480.1	341.1	223.5	152.9	128.7	122.0	120.6	120.6
17.5°	730.0	691.0	580.8	422.7	251.4	147.0	121.3	116.9	115.4	114.7	114.7
20°	734.4	687.4	552.8	358.0	177.9	119.8	113.2	111.0	110.3	109.5	109.5
22.5°	740.3	683.7	524.2	284.5	131.6	111.7	108.1	105.9	105.1	105.1	105.1
25°	748.4	681.5	488.9	215.4	113.2	105.9	102.2	100.7	100.7	100.0	100.0
27.5°	763.8	683.7	450.7	154.4	105.9	100.0	97.8	96.3	96.3	95.6	95.6
30°	785.1	690.3	402.9	120.6	100.0	94.1	91.9	91.2	90.4	90.4	90.4
32.5°	815.3	700.6	350.7	102.9	92.6	88.2	86.0	85.3	85.3	85.3	84.5
35°	861.6	721.9	286.7	94.1	86.0	81.6	79.4	79.4	79.4	78.7	79.4
37.5°	932.2	756.5	222.0	86.7	78.7	75.0	73.5	72.8	72.8	72.8	72.8
40°	1021.1	812.3	161.7	80.1	72.0	68.4	66.9	66.2	65.4	65.4	65.4
42.5°	1135.8	874.1	117.6	72.8	66.2	62.5	61.0	59.5	58.1	57.3	57.3
45°	1254.9	947.6	91.9	66.9	60.3	57.3	55.9	53.7	51.5	49.3	49.3
47.5°	1370.3	1004.2	78.7	60.3	55.1	52.2	50.7	47.8	44.1	41.9	41.9
50°	1443.1	1021.9	70.6	54.4	50.0	47.8	45.6	41.9	36.8	34.6	34.6
52.5°	1465.9	989.5	63.2	49.3	45.6	43.4	40.4	35.3	30.1	27.2	27.2
55°	1474.7	927.0	55.9	45.6	41.2	38.2	34.6	29.4	24.3	21.3	21.3
57.5°	1463.7	838.8	50.0	41.2	36.8	33.8	29.4	23.5	18.4	16.2	16.2
60°	1426.2	710.9	44.8	36.8	32.3	28.7	24.3	18.4	14.0	11.0	11.8
62.5°	1324.8	549.9	39.0	30.9	27.9	24.3	19.1	14.0	8.8	7.4	7.4
65°	1163.0	380.8	33.1	25.7	23.5	19.8	14.7	9.6	5.1	4.4	4.4
67.5°	944.7	246.3	25.7	21.3	19.8	16.2	11.0	5.9	2.9	2.9	2.2
70°	593.3	122.0	20.6	16.2	16.2	12.5	8.1	3.7	2.2	2.2	2.2
71°	419.8	83.1	18.4	14.7	14.7	11.8	7.4	2.9	2.2	2.2	2.2
72.5°	189.7	52.2	15.4	13.2	12.5	9.6	6.6	2.9	2.9	2.9	2.9
75°	59.5	28.7	11.0	10.3	10.3	8.1	5.9	3.7	3.7	3.7	3.7
77.5°	39.7	22.1	7.4	6.6	8.1	8.1	5.9	4.4	4.4	4.4	4.4
80°	32.3	11.8	4.4	4.4	5.9	7.4	5.9	4.4	5.1	4.4	4.4
82.5°	31.6	5.9	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)