

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: P597133

Luminaire Tested: **MSA-SA4B-835-U-T4W-HSS**

Issue Date: 5/27/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P597133  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1910-543-15)  
Test Lab: INNOVATIONS CENTER  
Issue Date: 5/27/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: INVUE  
Catalog Number: MSA-SA4B-835-U-T4W-HSS  
Description: MESA POST TOP DECORATIVE LUMINAIRE. (4) LIGHTSQUARES WITH 16 LEDS EACH AND TYPE IV WIDE OPTICS WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 12075 lumens  
Efficiency: N/A  
Efficacy: 70.6 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')  
IES Classification: Type IV - Short  
BUG Rating: B1 - U0 - G3

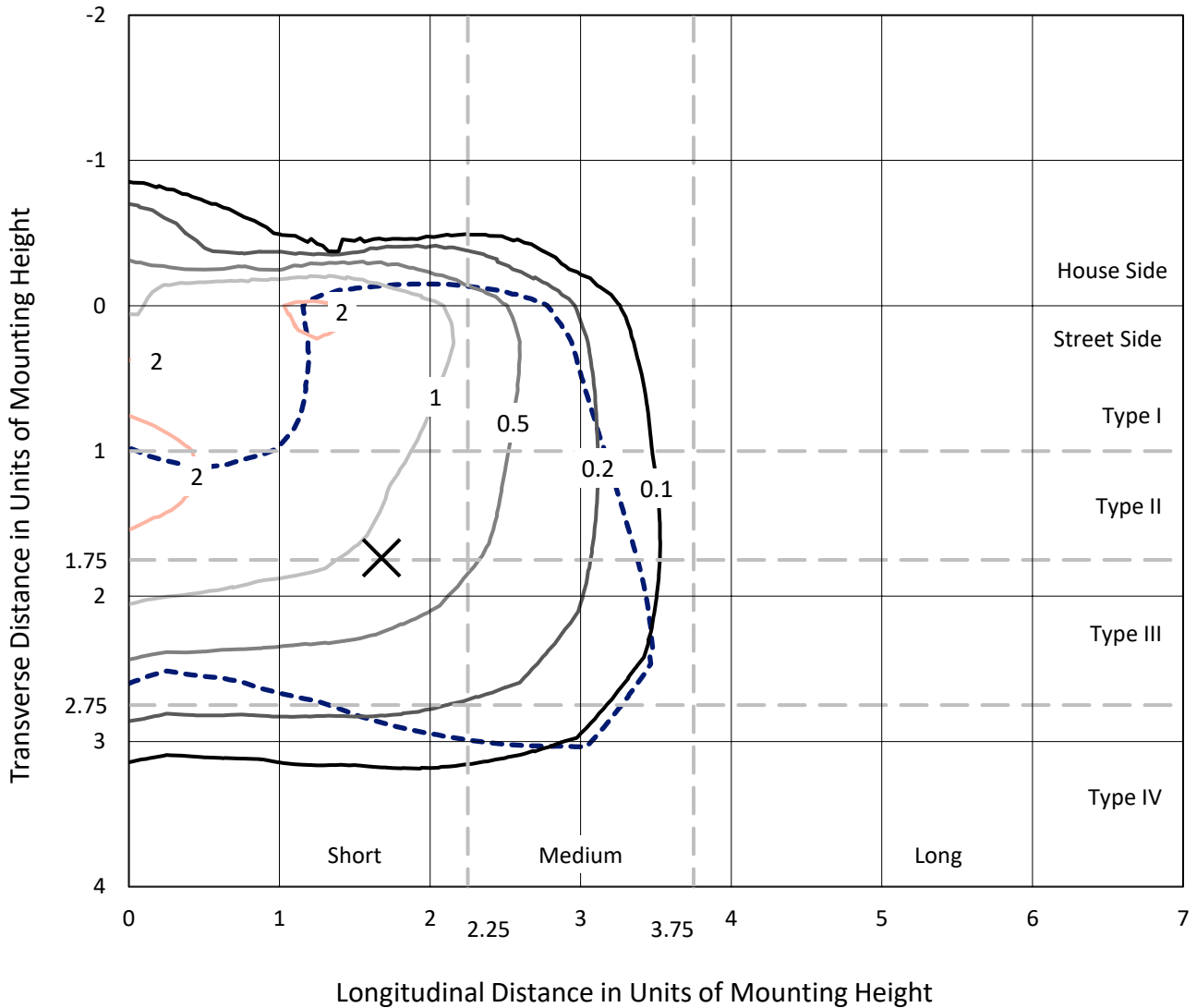
Input Watts (W): 171  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 28.75 FT



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### Iso-Footcandle Lines of Horizontal Illumination

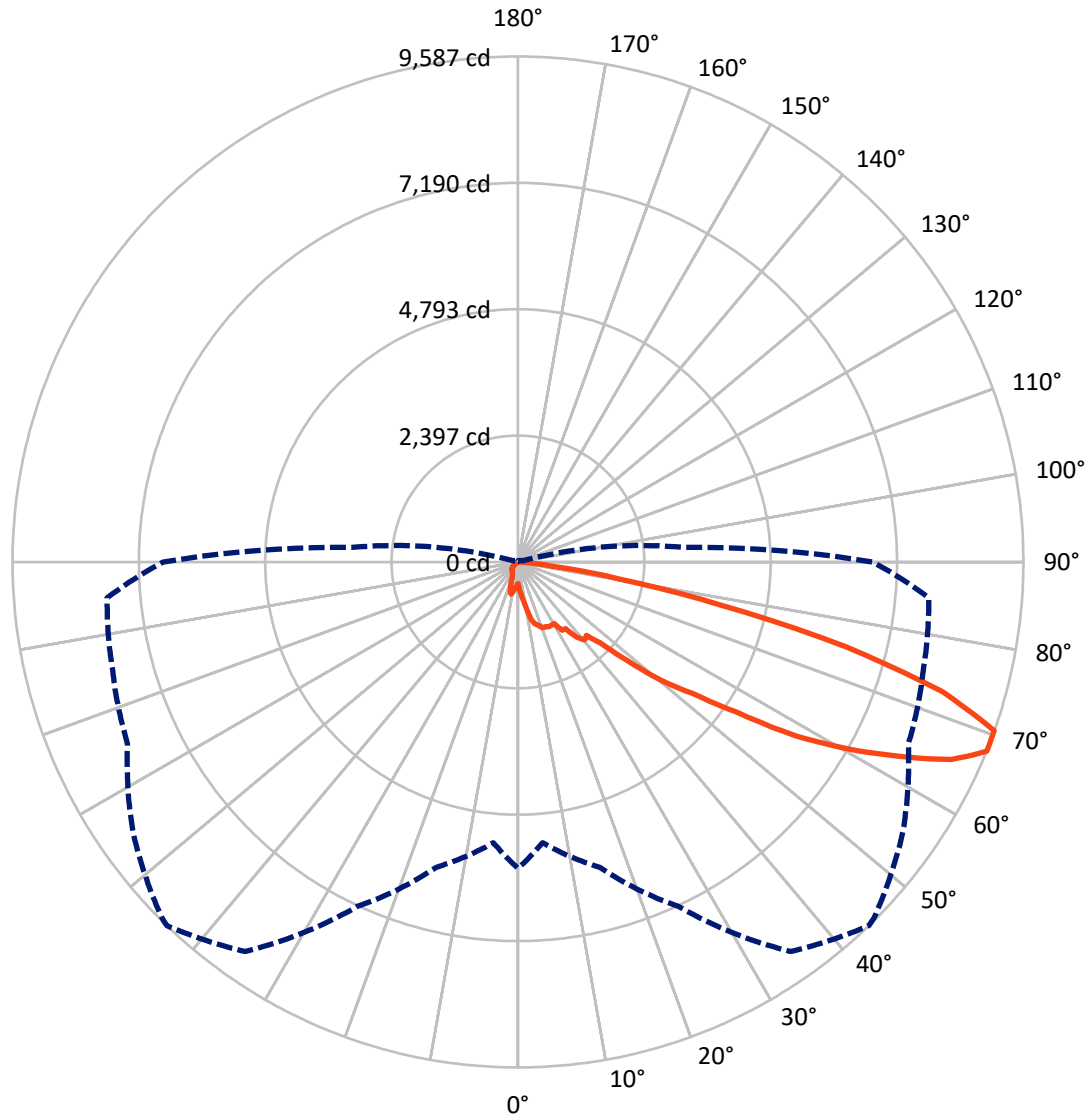
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 2.8 fc  
 Type IV - Short - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 44-Deg Lateral    - - - Horizontal Cone Through 67.5-Deg Vertical

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**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	1226.6	0.0	1226.6
	% Fixture	10.2	0.0	10.2
<b>Street Side</b>	Lumens	10848.4	0.0	10848.4
	% Fixture	89.8	0.0	89.8
<b>Total</b>	Lumens	12075.0	0.0	12075.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	60.3	0.5
10°-20°	252.4	2.1
20°-30°	447.2	3.7
30°-40°	726.9	6.0
40°-50°	1454.6	12.0
50°-60°	2984.1	24.7
60°-70°	4099.3	33.9
70°-80°	1926.7	16.0
80°-90°	123.4	1.0
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°	12075.0	100.0
0°-180°	12075.0	100.0

**Coefficient of Utilization**



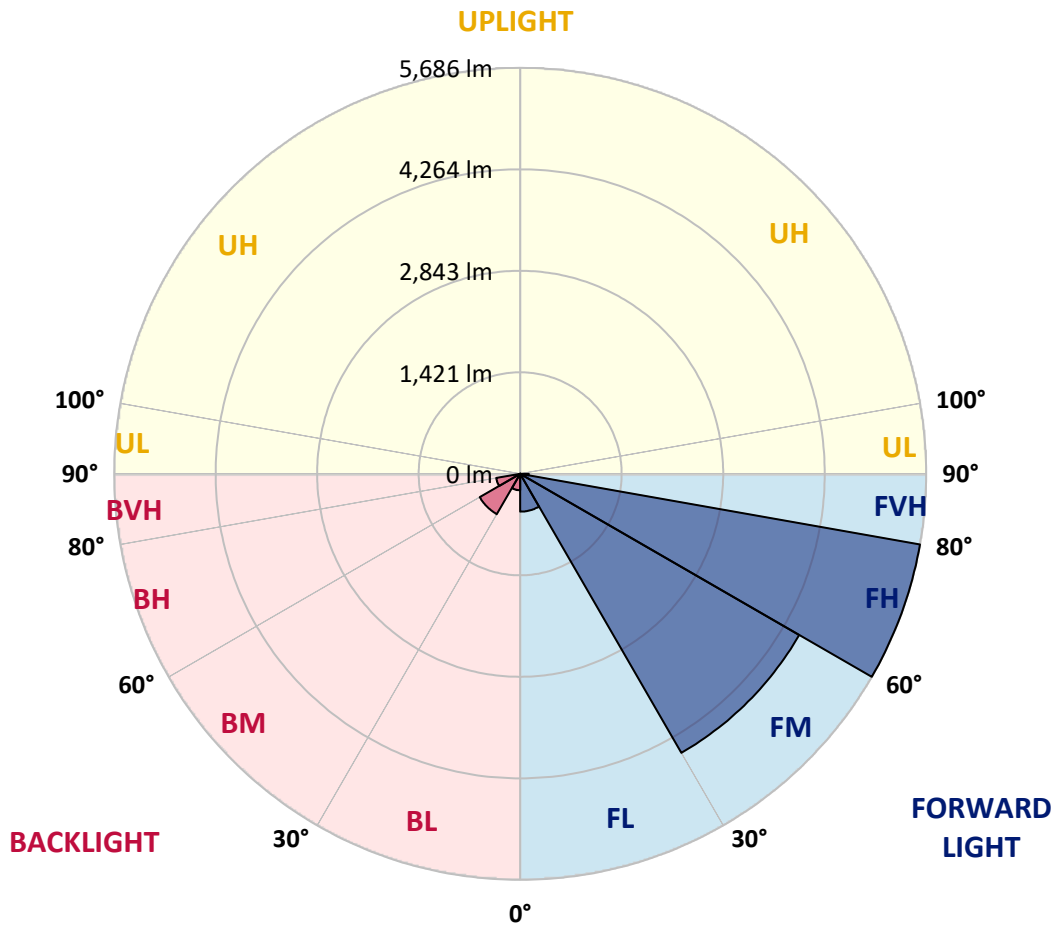
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	529.6	4.4			
FM (30°-60°)	4512.2	37.4			
FH (60°-80°)	5685.7	47.1			G3/7500
FVH (80°-90°)	120.9	1.0			G2/225
BL (0°-30°)	230.3	1.9	B1/500		
BM (30°-60°)	653.4	5.4	B1/1000		
BH (60°-80°)	340.4	2.8	B1/500		G1/500
BVH (80°-90°)	2.5	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-G3**

Type IV Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	44°	45°	55°	65°	75°	85°
0°	406.8	406.8	406.8	406.8	406.8	406.8	406.8	406.8	406.8	406.8	406.8
2.5°	517.4	500.7	476.7	482.1	484.7	492.1	492.7	483.4	456.8	449.4	482.1
5°	725.1	684.5	677.2	661.8	631.2	614.6	610.6	627.2	605.9	599.3	607.9
7.5°	926.2	891.6	853.6	833.0	769.0	729.8	727.8	734.4	738.4	715.1	727.1
10°	1060.0	1022.1	1014.1	965.5	910.2	900.9	896.9	871.6	850.9	833.6	775.7
12.5°	1181.2	1180.5	1195.2	1125.3	1116.6	1125.9	1122.6	1032.1	1011.4	938.8	922.2
15°	1342.3	1382.3	1319.0	1260.4	1185.9	1217.8	1209.2	1151.2	1137.3	1088.0	1016.7
17.5°	1509.5	1520.1	1414.3	1324.4	1305.1	1263.1	1271.8	1251.1	1180.5	1219.8	1149.2
20°	1513.5	1536.8	1423.6	1275.1	1334.4	1332.4	1333.0	1313.0	1219.8	1311.7	1247.1
22.5°	1569.4	1512.1	1406.9	1312.4	1323.0	1333.0	1343.7	1319.0	1299.1	1321.7	1333.7
25°	1546.8	1524.1	1422.9	1360.3	1350.3	1358.3	1361.0	1392.3	1379.6	1434.2	1404.3
27.5°	1605.3	1572.7	1391.6	1402.9	1367.6	1358.3	1342.3	1446.9	1484.2	1440.9	1520.8
30°	1705.9	1701.2	1445.5	1462.2	1434.9	1353.0	1395.6	1532.1	1578.7	1552.1	1649.3
32.5°	1863.0	1879.0	1603.4	1495.5	1509.5	1546.1	1530.1	1532.1	1650.0	1709.2	1786.5
35°	2086.1	2077.4	1757.2	1622.0	1548.8	1554.7	1577.4	1685.9	1838.4	1834.4	1916.3
37.5°	2524.2	2429.7	2029.5	1751.2	1773.1	1803.1	1786.5	1932.3	1946.9	1952.3	2148.0
40°	3170.1	3044.2	2459.0	2023.5	1811.8	1944.3	1936.3	1972.2	2070.1	2106.7	2392.4
42.5°	4021.0	3851.9	3214.7	2524.2	1998.2	1907.0	1956.2	2024.2	2353.1	2457.6	2770.6
45°	4961.2	4619.0	3968.4	3238.0	2465.6	2182.6	2219.9	2346.4	2802.5	2975.7	3321.2
47.5°	5570.4	5269.5	4714.8	3870.5	2953.0	2804.5	2807.9	2835.2	3330.6	3651.5	4114.9
50°	6099.8	5779.5	5264.8	4531.7	3815.3	3534.3	3470.4	3344.5	4003.1	4441.8	4955.9
52.5°	6846.9	6472.7	5814.8	5307.4	4798.7	4136.9	4114.2	4156.9	4796.1	5257.5	5818.1
55°	7520.7	7065.9	6438.0	6118.4	5920.0	5022.5	5041.8	5113.0	5814.1	6058.5	6585.2
57.5°	7818.3	7325.6	7002.7	6858.9	6753.0	6232.3	6167.0	6124.4	6617.2	6710.4	7388.9
60°	8013.4	7544.7	7398.2	7431.5	7752.4	7199.8	7140.5	6892.8	7281.7	7358.2	8109.3
62.5°	7890.2	7462.8	7494.1	7771.7	8484.2	8120.6	7949.5	7535.4	7825.0	7886.9	8626.7
65°	7114.5	6669.1	7071.3	7743.1	9042.2	9033.5	8954.3	8128.6	8126.0	8205.2	8666.6
67.5°	5811.5	5344.1	5994.6	7206.4	9018.9	9586.8	9549.5	8915.6	8169.2	7957.5	7821.0
70°	4040.3	3634.8	4372.6	5951.3	8215.2	9582.8	9522.9	9444.3	7827.0	6849.5	6063.8
72.5°	2099.4	1876.3	2563.5	4100.9	6548.6	8419.6	8617.3	8488.2	6683.1	4976.5	3570.9
75°	713.1	639.9	1057.4	2176.6	4353.3	6429.4	6661.1	6529.9	4539.1	2670.0	1412.3
77.5°	276.3	257.0	378.9	883.6	2184.0	3917.8	4169.5	4035.7	2434.3	978.1	332.3
80°	157.1	151.8	209.1	398.2	962.8	1948.9	2126.0	1928.3	877.6	329.6	86.6
82.5°	66.6	68.6	116.5	215.1	484.1	687.8	767.1	699.8	367.5	225.7	32.0
85°	14.6	18.0	55.3	119.9	203.1	196.4	205.7	228.4	225.7	165.8	14.0
87.5°	0.0	0.0	17.3	32.6	48.6	32.0	25.3	44.6	69.2	66.6	6.0
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°	406.8	406.8	406.8	406.8	406.8	406.8	406.8	406.8	406.8	406.8	406.8
2.5°	488.1	481.4	439.5	436.8	439.5	432.1	431.5	416.2	417.5	452.1	454.8
5°	607.9	574.6	538.7	527.3	516.7	492.7	506.0	506.0	506.0	528.0	534.7
7.5°	716.4	671.8	621.2	578.6	537.3	507.4	528.0	542.7	551.3	579.9	593.3
10°	765.7	721.8	676.5	615.9	583.9	572.6	548.7	536.0	551.3	545.3	552.7
12.5°	870.9	831.0	753.1	690.5	666.5	627.9	557.3	508.0	475.4	470.1	468.8
15°	973.5	948.8	844.3	760.4	677.2	587.9	467.4	402.2	367.5	361.6	362.2
17.5°	1103.3	1068.0	914.2	793.7	652.5	492.1	360.9	305.0	302.3	316.9	318.3
20°	1189.9	1131.9	949.5	766.4	571.3	372.2	282.3	269.0	290.3	316.9	314.3
22.5°	1272.4	1209.8	996.1	742.4	442.8	282.3	259.7	261.0	279.0	307.6	314.9
25°	1327.0	1304.4	1053.4	686.5	337.6	244.4	248.4	258.3	273.7	301.0	301.0
27.5°	1491.5	1385.6	1046.7	578.0	259.7	227.7	237.0	249.7	257.7	290.3	293.6
30°	1591.4	1556.7	1081.3	467.4	227.7	206.4	224.4	235.7	241.0	278.3	279.7
32.5°	1713.9	1637.3	1123.3	344.9	211.7	205.1	201.1	209.7	225.1	257.7	259.7
35°	1863.0	1840.4	1063.4	271.0	206.4	191.8	183.8	188.4	198.4	220.4	225.1
37.5°	2167.3	2032.8	1027.4	232.4	206.4	187.1	178.4	166.5	167.8	183.1	191.8
40°	2423.7	2382.4	926.9	225.7	197.1	180.4	159.1	144.5	134.5	139.2	142.5
42.5°	2894.4	2703.3	797.0	222.4	188.4	163.1	135.2	119.9	104.5	105.9	111.2
45°	3465.7	3053.6	681.2	219.1	182.4	145.8	113.9	95.9	79.9	80.6	85.9
47.5°	4228.8	3564.3	540.7	209.1	171.8	129.8	91.9	73.2	63.9	65.9	70.6
50°	5095.7	4012.4	427.5	193.8	159.1	114.5	74.6	59.3	55.9	57.9	63.3
52.5°	5870.1	4342.6	352.9	179.8	141.2	93.2	62.6	52.6	51.3	52.6	56.6
55°	6558.6	4534.4	295.0	163.8	121.2	75.2	56.6	48.6	47.9	47.3	49.9
57.5°	7204.4	4589.7	230.4	138.5	98.5	65.3	52.6	45.3	43.9	41.9	43.9
60°	7675.2	4495.1	169.1	111.2	80.6	59.3	49.3	40.6	38.6	35.3	36.6
62.5°	7902.2	4236.1	127.8	89.2	68.6	53.9	43.9	35.3	32.6	28.6	29.3
65°	7686.5	3809.3	100.5	75.2	58.6	45.3	37.3	30.0	26.6	22.6	22.6
67.5°	6731.0	3160.1	85.2	65.3	49.3	38.6	30.6	27.3	22.0	18.6	18.0
70°	4940.6	2273.2	73.2	57.3	42.6	33.3	26.0	24.6	21.3	18.0	16.6
72.5°	2788.6	1286.4	62.6	50.6	36.0	28.0	22.0	22.6	20.6	16.6	15.3
75°	1064.0	433.5	51.9	41.9	29.3	21.3	18.6	18.6	18.6	14.0	12.0
77.5°	263.7	110.5	41.3	34.0	23.3	14.0	15.3	16.0	16.0	12.0	8.7
80°	72.6	37.3	24.6	24.6	16.6	8.0	10.7	10.7	8.7	4.0	0.0
82.5°	26.6	14.0	8.7	10.7	7.3	2.7	4.0	2.7	2.0	0.0	0.0
85°	11.3	7.3	5.3	6.0	3.3	0.0	0.7	1.3	0.0	0.0	0.0
87.5°	4.7	3.3	2.7	2.7	1.3	0.0	0.0	0.0	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

(END OF REPORT)