

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: P401577

Luminaire Tested: **ENT-SA1D-830-U-SL3-HSS**

Issue Date: 5/20/2020

Test Information

Test Method: LM-79-08
Report Number: P401577
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2004-754-4)
Test Lab: INNOVATION CENTER
Issue Date: 5/20/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: ENT-SA1D-830-U-SL3-HSS
Description: ENTRI LED LUMINAIRE
(1) 80 CRI, 3000K, 800mA LIGHTSQUARE WITH 16 LEDS AND TYPE III SPILL
LIGHT ELIMINATOR OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3759 lumens
Efficiency: N/A
Efficacy: 87.2 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type III - 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

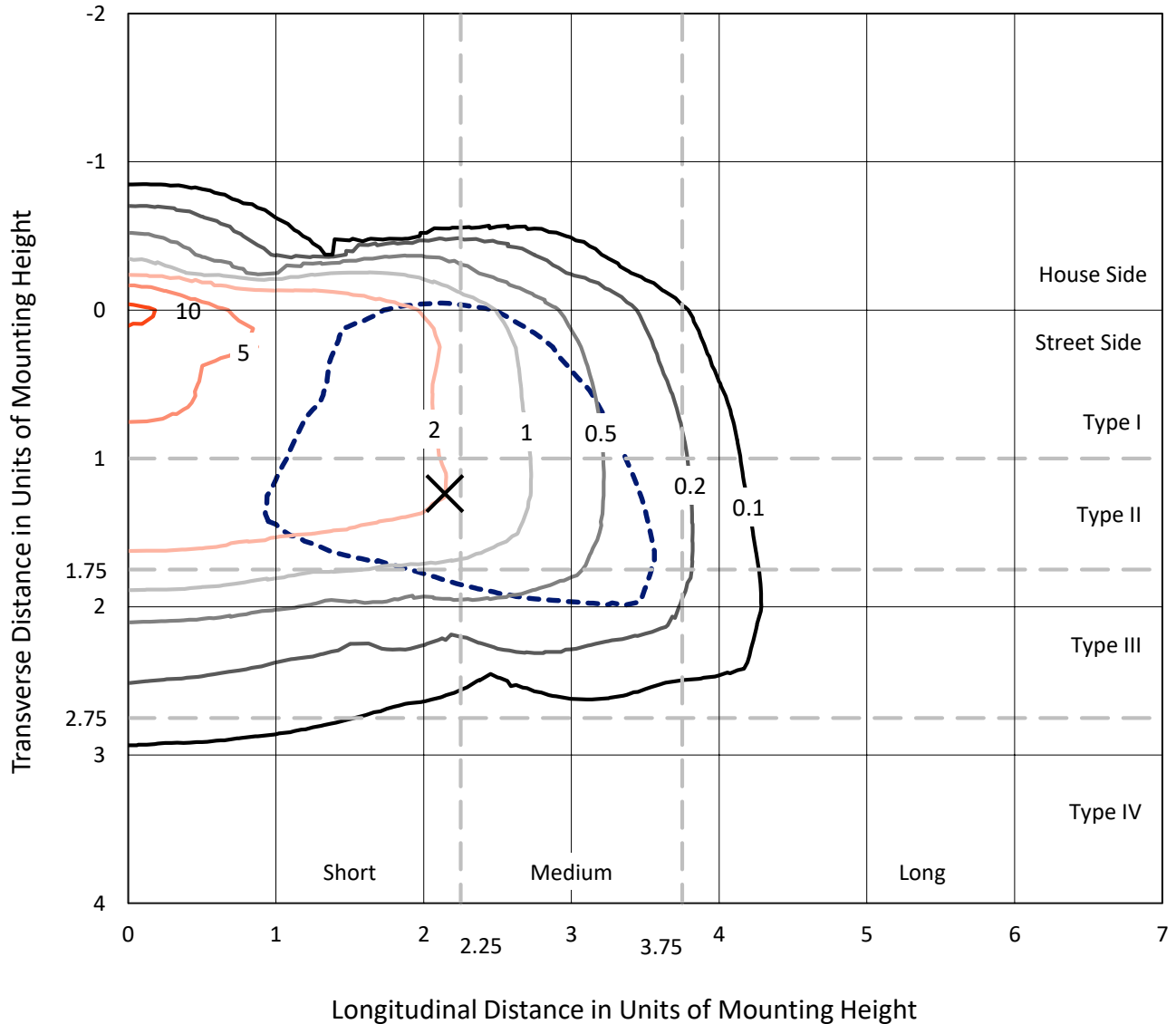


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

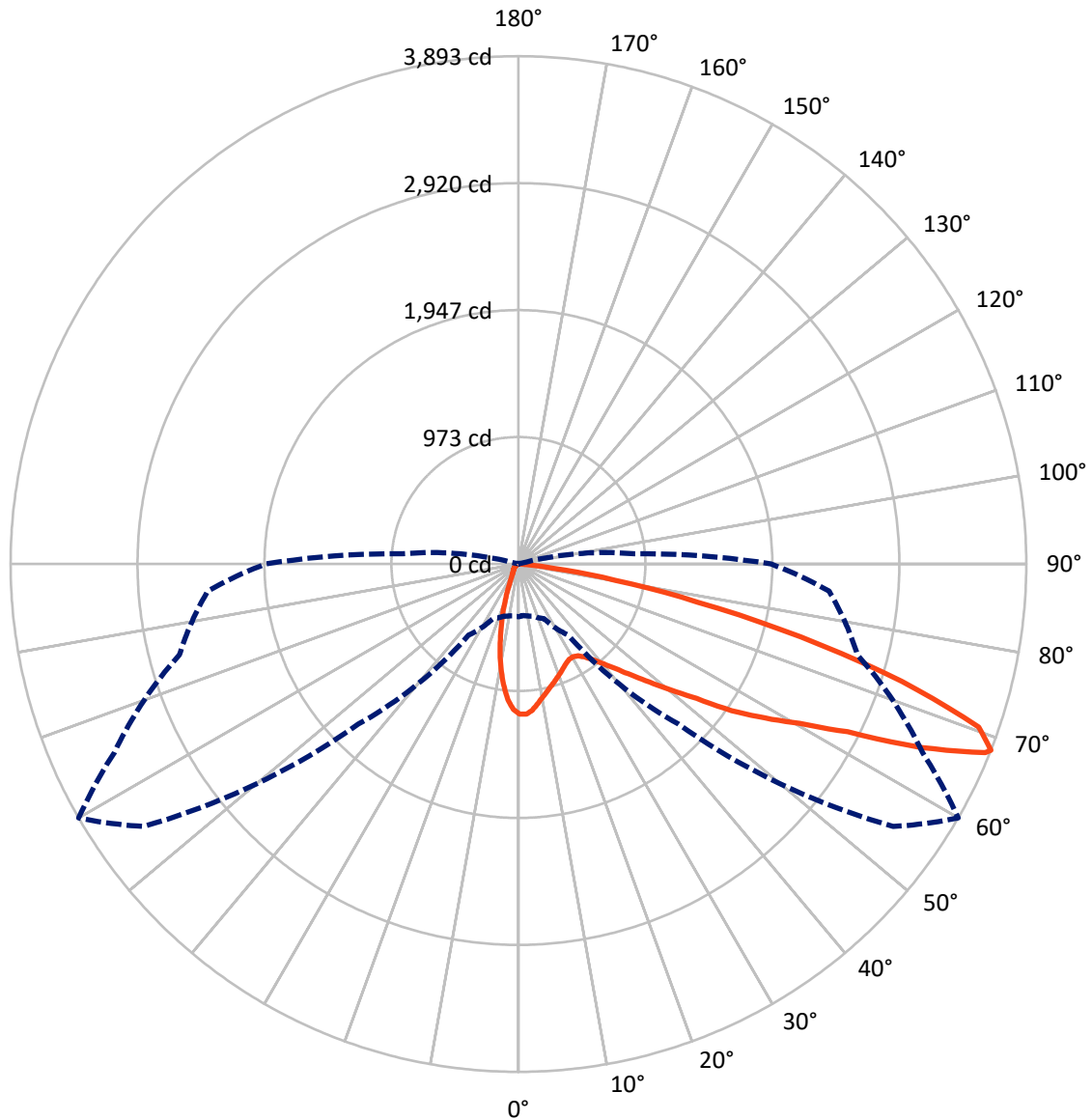


Based on 10 foot mounting height. Maximum calculated value = 11.5 fc
 Type III - Short - Semi-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 60-Deg Lateral - - - Horizontal Cone Through 68-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	420.3	0.0	420.3
	% Fixture	11.2	0.0	11.2
Street Side	Lumens	3338.7	0.0	3338.7
	% Fixture	88.8	0.0	88.8
Total	Lumens	3759.0	0.0	3759.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	93.4	2.5
10°-20°	190.4	5.1
20°-30°	250.7	6.7
30°-40°	346.0	9.2
40°-50°	524.5	14.0
50°-60°	846.4	22.5
60°-70°	1005.4	26.7
70°-80°	473.9	12.6
80°-90°	28.3	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°	3759.0	100.0
0°-180°	3759.0	100.0

Coefficient of Utilization



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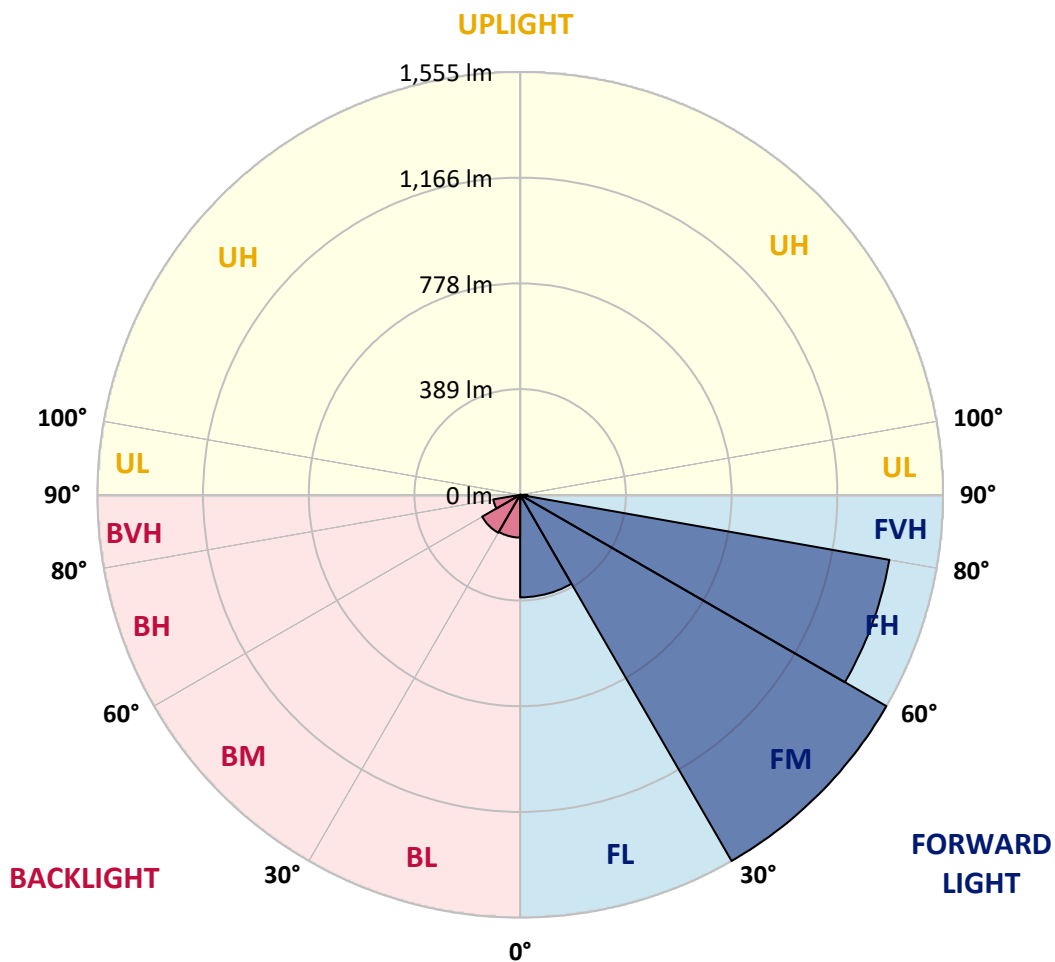
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	377.3	10.0			
FM	(30°-60°)	1555.3	41.4			
FH	(60°-80°)	1379.1	36.7			G1/1800
FVH	(80°-90°)	27.1	0.7			G1/100
BL	(0°-30°)	157.3	4.2	B1/500		
BM	(30°-60°)	161.6	4.3	B0/220		
BH	(60°-80°)	100.3	2.7	B0/110		G0/110
BVH	(80°-90°)	1.2	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 III Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	60°	65°	75°	85°
0°	1150.6	1150.6	1150.6	1150.6	1150.6	1150.6	1150.6	1150.6	1150.6	1150.6	1150.6
2.5°	1140.4	1137.8	1144.8	1146.8	1148.7	1152.5	1151.9	1152.5	1153.1	1151.9	1144.2
5°	1062.6	1067.0	1073.4	1081.7	1090.0	1109.1	1116.8	1124.4	1129.5	1133.4	1126.4
7.5°	986.0	995.0	1000.1	1015.4	1028.1	1047.9	1064.5	1077.9	1090.6	1104.7	1097.7
10°	924.8	928.0	932.5	946.5	965.6	995.6	1017.3	1033.9	1049.2	1072.8	1067.0
12.5°	864.9	866.8	875.7	891.0	910.8	947.8	976.5	995.6	1012.8	1042.2	1042.8
15°	820.8	821.5	827.2	841.3	864.2	903.8	940.8	961.8	986.0	1021.8	1023.7
17.5°	792.1	791.5	792.8	801.7	823.4	861.0	905.7	930.5	959.2	1005.2	1007.1
20°	783.2	781.9	779.4	777.5	790.9	823.4	873.8	901.2	935.0	993.1	993.7
22.5°	790.9	788.3	782.6	771.7	775.6	796.6	838.7	871.9	913.3	986.7	982.2
25°	809.4	809.4	801.7	784.5	775.6	780.0	813.8	845.7	891.6	983.5	973.9
27.5°	840.0	838.7	828.5	810.6	794.1	781.9	798.5	828.5	875.7	987.3	970.1
30°	877.0	873.1	862.3	849.5	829.1	803.0	801.7	824.0	868.0	999.4	972.6
32.5°	912.1	912.1	907.6	895.5	875.7	841.3	821.5	839.3	877.6	1019.2	980.9
35°	955.4	954.8	956.1	951.6	934.4	898.0	866.1	875.1	906.9	1052.4	1000.7
37.5°	989.9	990.5	1001.3	1009.0	1001.3	963.1	929.9	929.9	956.7	1102.1	1034.5
40°	1023.7	1024.9	1045.4	1067.7	1069.6	1039.0	1007.1	1006.4	1021.8	1163.3	1086.8
42.5°	1054.3	1059.4	1088.7	1127.0	1149.3	1128.9	1105.3	1097.7	1105.3	1255.8	1171.6
45°	1086.8	1097.0	1137.8	1193.3	1229.7	1230.3	1221.4	1212.5	1216.3	1359.8	1285.2
47.5°	1128.9	1140.4	1191.4	1259.7	1328.5	1346.4	1354.7	1351.5	1341.3	1491.2	1431.9
50°	1197.1	1208.0	1255.8	1332.4	1426.8	1491.2	1513.5	1517.3	1503.9	1636.6	1598.3
52.5°	1313.2	1319.6	1364.3	1424.8	1530.7	1651.3	1709.9	1710.6	1680.6	1806.9	1778.2
55°	1437.6	1454.2	1506.5	1576.6	1685.7	1820.9	1967.6	1983.6	1891.1	1956.1	1909.6
57.5°	1439.5	1455.5	1542.2	1676.8	1905.1	2084.3	2215.1	2226.6	2123.9	2076.0	2033.3
60°	1287.7	1296.0	1416.5	1613.6	1983.6	2439.6	2497.0	2479.8	2287.1	2199.8	2188.3
62.5°	908.9	912.7	1055.6	1315.1	1810.1	2609.2	2926.2	2833.7	2519.3	2382.2	2420.4
65°	572.1	570.2	629.5	836.8	1346.4	2442.1	3456.9	3389.3	2946.0	2610.5	2601.6
67.5°	422.2	412.0	428.0	492.4	769.2	1917.2	3554.4	3859.3	3352.3	2705.5	2444.7
68°	405.0	396.1	412.7	462.4	665.2	1735.4	3507.3	3893.1	3416.7	2690.2	2391.1
70°	343.8	335.5	349.5	387.1	463.0	1126.4	3094.6	3743.2	3475.4	2560.1	2107.3
72.5°	244.3	248.7	285.7	332.3	392.2	577.8	2278.9	3074.2	2989.4	2276.9	1603.4
75°	144.8	153.1	201.5	267.9	360.4	381.4	1470.1	2234.8	2193.4	1576.6	868.7
77.5°	51.0	54.2	100.1	178.6	297.2	302.3	818.9	1405.1	1306.8	644.2	256.4
80°	18.5	18.5	37.0	99.5	192.0	230.9	435.0	750.1	516.0	167.1	70.8
82.5°	3.2	3.2	8.3	33.8	84.8	123.1	202.2	266.6	153.1	37.0	35.1
85°	0.0	0.0	0.0	0.0	1.3	1.3	59.3	60.0	28.1	5.1	15.3
87.5°	0.0	0.0	0.0	0.0	0.0	0.6	1.3	1.3	1.3	1.3	1.9
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°	1150.6	1150.6	1150.6	1150.6	1150.6	1150.6	1150.6	1150.6	1150.6	1150.6	1150.6
2.5°	1141.0	1139.7	1132.7	1120.0	1109.1	1091.3	1088.1	1070.9	1064.5	1059.4	1064.5
5°	1121.2	1114.2	1090.6	1061.9	1023.0	977.1	950.3	913.3	905.7	885.3	897.4
7.5°	1088.7	1072.8	1028.8	966.9	895.5	825.3	771.7	720.1	676.1	660.8	656.3
10°	1054.3	1032.0	958.0	862.3	759.0	651.2	571.5	496.8	455.4	416.5	415.2
12.5°	1021.8	987.9	880.8	747.5	603.4	475.2	371.8	293.4	244.3	217.5	224.5
15°	995.6	950.3	803.0	632.7	450.3	306.1	210.5	160.1	142.9	134.6	135.9
17.5°	970.1	910.1	727.7	512.8	320.8	188.8	136.5	119.3	114.2	112.3	111.0
20°	947.1	871.2	648.6	404.4	211.7	130.7	112.3	106.5	104.6	103.3	103.3
22.5°	924.2	830.4	569.6	299.8	144.8	107.2	100.8	98.2	96.9	95.0	95.0
25°	903.1	790.9	490.5	209.8	111.0	95.7	91.2	88.7	86.1	84.2	84.2
27.5°	887.2	760.9	417.1	148.6	93.1	86.1	81.6	77.2	74.0	71.4	71.4
30°	877.0	731.6	346.3	112.3	82.9	76.5	70.8	65.1	60.0	56.8	56.1
32.5°	871.2	707.3	280.6	91.8	74.0	67.0	60.0	53.6	47.8	44.0	44.0
35°	873.8	688.2	214.9	77.8	67.0	58.7	51.0	43.4	38.3	35.1	34.4
37.5°	890.4	677.3	160.1	68.9	60.0	51.0	43.4	35.7	30.6	28.1	27.4
40°	921.6	679.9	121.8	62.5	54.9	44.6	35.7	29.3	24.9	22.3	22.3
42.5°	984.8	698.4	96.3	57.4	49.1	38.3	30.0	24.2	20.4	18.5	17.9
45°	1068.3	733.5	79.1	52.9	43.4	32.5	25.5	20.4	16.6	14.7	14.7
47.5°	1194.6	789.6	68.2	48.5	37.6	27.4	21.0	16.6	12.8	11.5	10.8
50°	1340.7	868.0	60.0	43.4	33.2	23.0	17.9	12.8	10.2	8.3	8.3
52.5°	1489.9	955.4	54.2	38.9	28.7	19.8	14.0	9.6	7.0	5.7	5.7
55°	1627.0	1028.8	48.5	35.1	24.2	16.6	11.5	7.7	5.1	3.8	3.8
57.5°	1759.7	1095.7	42.1	30.6	19.8	13.4	8.9	5.7	3.8	2.6	2.6
60°	1926.2	1182.5	36.4	26.1	15.9	10.8	7.0	4.5	2.6	1.9	1.3
62.5°	2127.1	1245.6	30.6	21.0	12.8	8.3	5.1	3.2	1.9	0.6	0.6
65°	2201.0	1162.1	25.5	17.2	10.2	6.4	3.8	2.6	1.3	0.6	0.6
67.5°	1994.4	936.3	20.4	13.4	7.7	4.5	3.2	1.9	1.3	0.6	0.6
68°	1937.0	890.4	19.8	12.8	7.0	4.5	2.6	1.9	0.6	0.6	0.0
70°	1635.3	715.0	15.9	9.6	5.7	3.8	2.6	1.3	0.6	0.6	0.0
72.5°	1212.5	493.0	11.5	6.4	3.8	2.6	1.9	1.3	0.6	0.6	0.0
75°	639.7	192.0	8.9	5.1	3.2	2.6	1.9	1.9	1.3	0.6	0.6
77.5°	183.7	60.6	7.0	3.8	3.2	3.2	3.2	2.6	2.6	1.9	1.3
80°	53.6	19.8	4.5	2.6	3.2	3.2	3.8	3.2	3.2	2.6	2.6
82.5°	28.7	7.7	2.6	1.9	1.9	2.6	3.2	2.6	1.9	1.3	0.6
85°	12.1	2.6	1.9	1.3	1.3	1.3	1.3	1.3	1.3	0.6	0.6
87.5°	0.6	1.3	1.3	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
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)