

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: P401572

Luminaire Tested: **ENT-SA1D-827-U-T4FT**

Issue Date: 5/20/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P401572  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2004-754-15)  
Test Lab: INNOVATION CENTER  
Issue Date: 5/20/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: INVUE  
Catalog Number: ENT-SA1D-827-U-T4FT  
Description: ENTRI LED LUMINAIRE  
(1) 80 CRI, 2700K, 800mA LIGHTSQUARE WITH 16 LEDS AND TYPE IV FORWARD THROW OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3974 lumens  
Efficiency: N/A  
Efficacy: 92.2 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')  
IES Classification: Type IV - Short - Non-Cutoff  
BUG Rating: B1 - U0 - G1

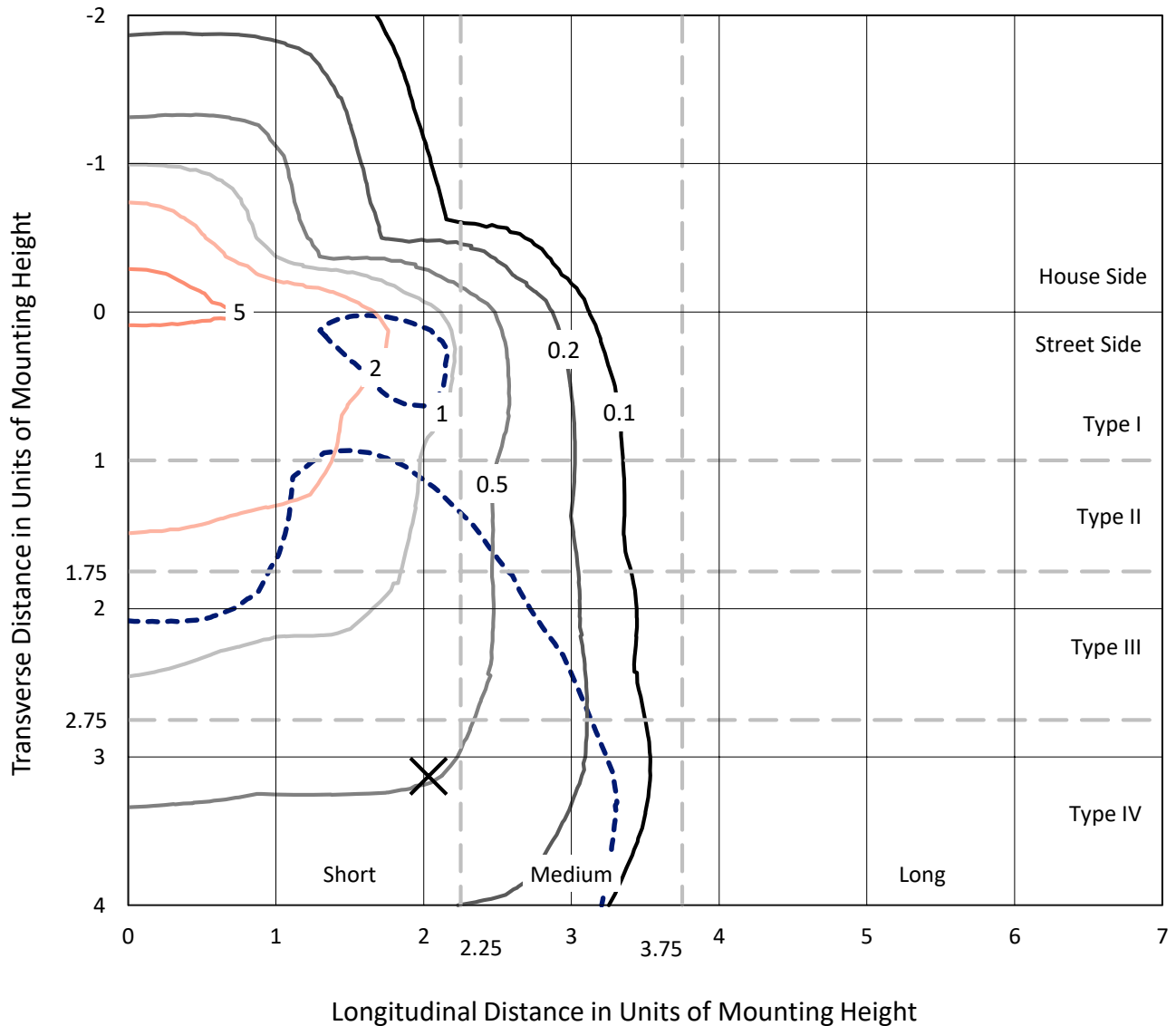
Input Watts (W): 43.1  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Iso-Footcandle Lines of Horizontal Illumination

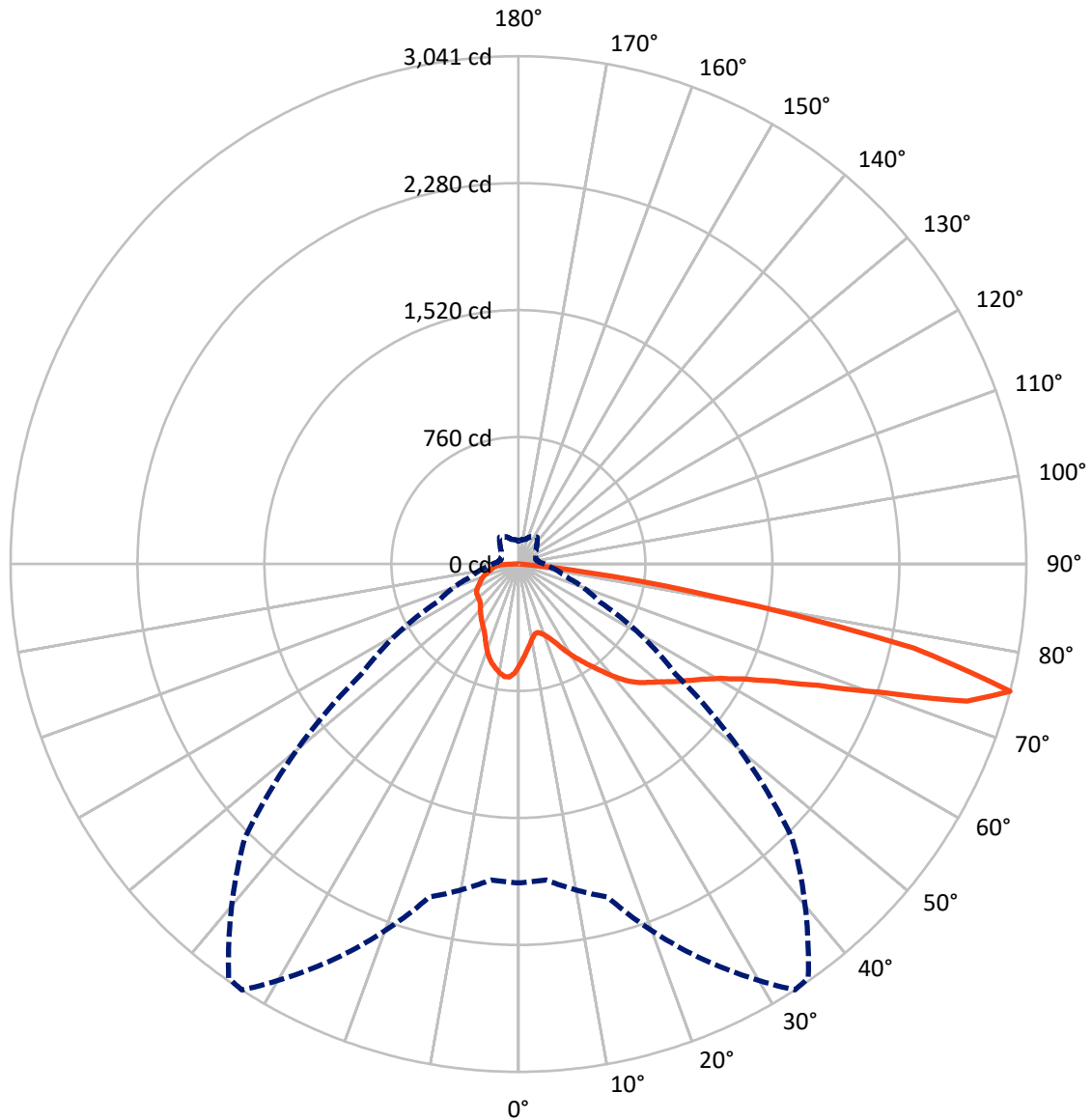
× Max cd  
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 6.5 fc  
 Type IV - Short - Non-Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 33-Deg Lateral    - - - Horizontal Cone Through 75-Deg Vertical

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**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	965.4	0.0	965.4
	% Fixture	24.3	0.0	24.3
<b>Street Side</b>	Lumens	3008.6	0.0	3008.6
	% Fixture	75.7	0.0	75.7
<b>Total</b>	Lumens	3974.0	0.0	3974.0
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	56.9	1.4
10°-20°	160.0	4.0
20°-30°	266.0	6.7
30°-40°	396.9	10.0
40°-50°	554.4	14.0
50°-60°	740.1	18.6
60°-70°	917.6	23.1
70°-80°	793.4	20.0
80°-90°	88.7	2.2
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°	3974.0	100.0
0°-180°	3974.0	100.0



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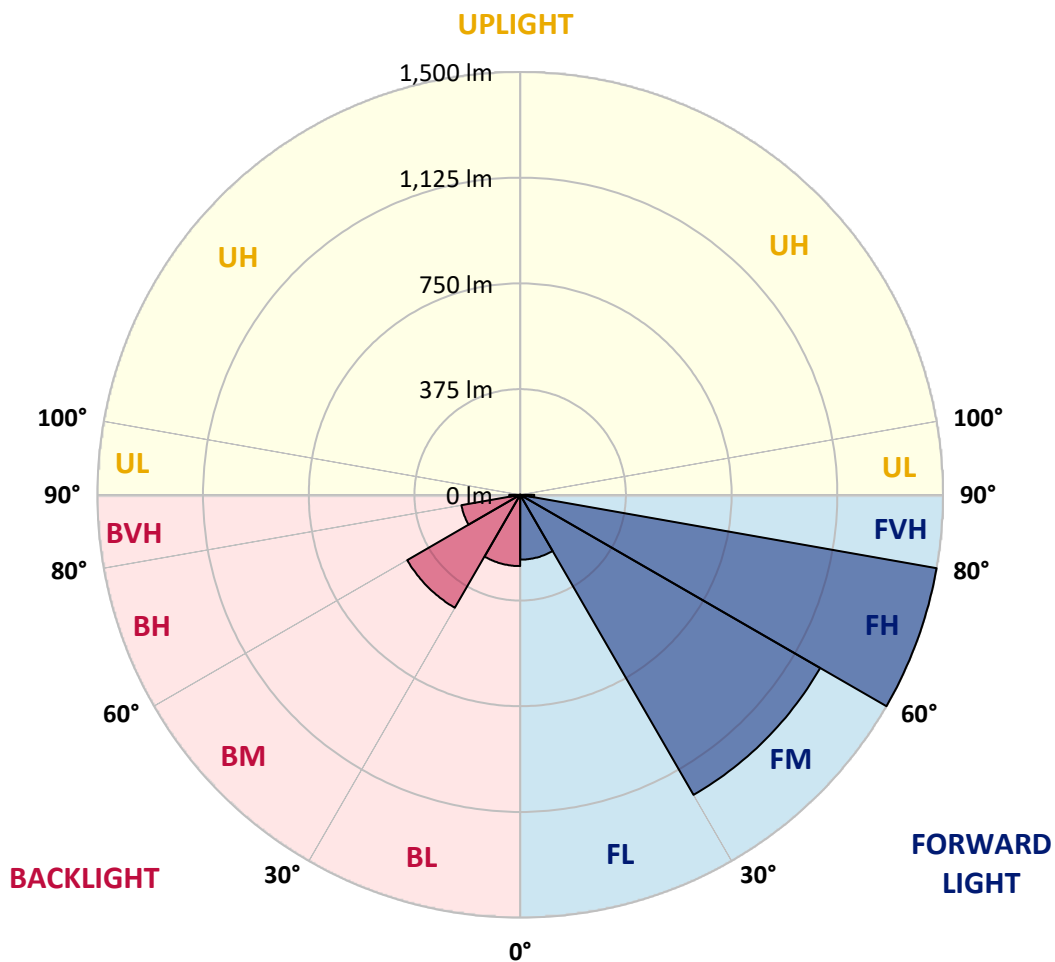
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	230.1	5.8			
FM	(30°-60°)	1228.8	30.9			
FH	(60°-80°)	1499.6	37.7			G1/1800
FVH	(80°-90°)	50.1	1.3			G1/100
BL	(0°-30°)	252.8	6.4	B1/500		
BM	(30°-60°)	462.6	11.6	B1/1000		
BH	(60°-80°)	211.4	5.3	B1/500		G1/500
BVH	(80°-90°)	38.6	1.0			G1/100
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°	33°	35°	45°	55°	65°	75°	85°
0°	608.9	608.9	608.9	608.9	608.9	608.9	608.9	608.9	608.9	608.9	608.9
2.5°	552.3	553.5	557.0	561.1	563.5	563.5	570.0	577.7	587.1	595.4	604.2
5°	506.3	508.0	511.0	516.3	522.8	524.0	536.9	550.5	567.6	585.9	603.6
7.5°	460.8	464.4	470.3	477.4	487.4	489.7	508.0	526.3	549.9	577.7	606.6
10°	426.0	428.4	431.3	441.4	453.8	457.9	482.1	505.1	537.5	571.8	610.1
12.5°	416.6	416.6	416.6	421.3	431.3	434.9	460.2	489.7	526.3	567.6	615.4
15°	430.1	429.6	423.1	419.5	425.4	428.4	450.2	479.1	520.4	568.8	625.5
17.5°	460.8	459.1	443.7	431.9	436.0	437.8	452.0	476.8	518.7	573.5	640.2
20°	501.0	496.8	473.2	455.5	454.9	456.1	466.7	483.8	521.6	581.8	656.1
22.5°	554.1	551.7	516.9	489.7	485.0	485.0	489.7	500.4	529.3	591.2	678.0
25°	622.5	616.0	574.1	537.5	526.9	524.0	523.4	523.4	542.8	605.4	705.1
27.5°	692.7	685.1	642.6	593.0	578.8	573.5	564.1	557.0	560.6	620.7	737.6
30°	755.9	745.2	709.2	657.9	636.7	628.4	611.3	596.5	587.1	642.0	780.6
32.5°	790.7	786.5	761.8	715.1	691.0	687.4	659.1	639.6	623.1	669.7	838.5
35°	837.3	832.0	816.0	777.7	748.8	739.9	718.7	695.7	669.1	706.9	911.6
37.5°	880.4	877.4	871.5	845.0	814.3	805.4	786.0	761.8	725.8	761.8	993.7
40°	924.0	920.5	918.1	908.7	886.9	881.0	871.5	843.2	794.8	821.9	1074.5
42.5°	987.8	980.1	955.3	954.7	956.5	961.2	961.8	930.5	870.3	896.9	1145.3
45°	1070.9	1049.7	994.2	992.5	1013.1	1025.5	1055.6	1029.1	948.8	973.6	1224.4
47.5°	1113.4	1091.6	1034.4	1030.8	1058.0	1076.3	1150.6	1124.6	1030.2	1059.7	1306.4
50°	1134.1	1119.9	1069.8	1081.0	1108.7	1126.4	1240.9	1220.2	1114.6	1153.0	1409.6
52.5°	1163.0	1139.4	1104.0	1127.6	1168.9	1187.2	1321.7	1318.2	1186.0	1254.5	1522.9
55°	1153.0	1140.6	1147.1	1178.9	1230.9	1258.0	1403.1	1403.1	1258.6	1363.0	1635.0
57.5°	1161.2	1153.0	1206.7	1235.0	1300.5	1339.4	1501.1	1475.1	1320.0	1453.9	1710.6
60°	1231.4	1207.8	1249.7	1305.8	1390.2	1427.9	1613.2	1550.7	1370.1	1532.4	1724.1
62.5°	1355.4	1336.5	1340.6	1404.9	1514.1	1557.7	1724.1	1617.3	1403.7	1565.4	1673.4
65°	1560.7	1551.8	1501.1	1540.0	1690.5	1730.0	1862.8	1675.2	1394.3	1540.6	1539.5
67.5°	1836.8	1801.4	1733.0	1767.8	1941.3	1981.4	2029.8	1697.0	1332.9	1392.5	1237.3
70°	2065.8	2036.3	2005.0	2096.5	2295.9	2317.7	2203.9	1676.3	1183.6	1089.8	829.6
72.5°	2211.5	2190.3	2219.2	2488.3	2807.5	2766.2	2375.6	1531.8	923.4	667.4	414.8
75°	1908.8	1898.8	2064.0	2609.8	3040.5	3025.2	2316.0	1146.5	535.8	293.8	188.8
77.5°	960.0	1069.2	1243.2	1851.6	2419.2	2422.2	1687.6	551.1	225.4	164.6	129.8
80°	270.2	273.8	414.8	763.5	1207.8	1286.9	638.4	187.0	128.6	122.7	96.8
82.5°	64.3	59.6	106.2	226.0	405.4	421.9	191.8	67.3	72.0	76.7	59.6
85°	0.6	0.6	0.6	0.6	0.6	1.2	7.1	7.1	17.1	21.8	17.1
87.5°	0.0	0.0	0.0	0.6	0.6	0.6	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



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**CANDELA DISTRIBUTION (continued):**

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	608.9	608.9	608.9	608.9	608.9	608.9	608.9	608.9	608.9	608.9	608.9
2.5°	608.3	614.2	623.7	631.9	639.0	644.3	652.6	653.8	656.1	657.3	658.5
5°	613.7	624.9	642.6	657.9	668.5	671.5	678.6	678.0	678.6	678.6	678.0
7.5°	620.7	636.1	660.9	678.0	683.9	682.1	680.3	673.8	668.5	666.2	663.2
10°	629.6	647.3	676.2	688.6	685.6	676.2	665.0	653.2	643.7	639.0	637.8
12.5°	638.4	661.5	688.6	692.1	680.3	663.2	644.3	631.4	619.0	612.5	612.5
15°	653.2	678.6	698.6	691.5	670.3	648.5	622.5	604.8	590.6	581.8	581.2
17.5°	670.9	698.0	709.2	688.6	657.9	627.2	596.0	572.9	554.7	545.8	540.5
20°	692.7	718.1	714.6	679.2	639.6	601.9	562.9	535.2	516.3	506.9	505.1
22.5°	717.5	738.7	716.3	663.8	614.8	566.5	524.0	496.2	483.8	476.8	477.4
25°	747.6	764.1	716.9	645.5	579.4	519.8	482.7	469.7	467.9	465.0	466.1
27.5°	785.4	790.7	714.6	620.7	534.0	470.9	449.0	454.3	459.1	457.3	458.5
30°	830.2	822.5	709.2	584.7	477.9	426.0	427.2	439.0	445.5	443.7	444.3
32.5°	882.7	854.4	699.2	541.1	424.8	398.9	408.3	420.1	426.6	426.6	427.2
35°	941.7	892.8	679.7	484.4	387.7	382.4	390.6	400.1	404.2	401.8	403.6
37.5°	1003.7	925.8	648.5	421.3	359.9	369.4	374.1	376.5	375.9	372.3	370.6
40°	1061.5	951.8	592.4	358.8	336.9	355.8	358.2	351.7	344.0	337.5	333.4
42.5°	1105.8	965.3	514.5	313.3	315.1	340.5	342.2	329.3	314.5	304.5	302.1
45°	1151.2	970.0	437.2	276.7	291.5	325.1	329.8	312.1	292.1	280.3	278.5
47.5°	1203.1	981.9	361.1	251.4	271.4	314.5	322.2	300.3	277.9	260.2	257.3
50°	1272.7	1004.3	303.9	231.9	257.3	309.2	319.8	290.9	262.6	243.1	240.7
52.5°	1361.3	1037.3	250.8	216.5	246.1	300.9	316.3	281.5	251.4	227.8	224.2
55°	1437.4	1049.7	216.5	203.6	234.3	290.9	313.3	277.9	239.0	212.4	208.3
57.5°	1472.2	1014.3	192.4	190.6	221.9	278.5	307.4	266.1	225.4	204.7	201.2
60°	1456.3	926.4	174.1	178.8	207.7	262.6	292.1	254.3	216.0	198.8	195.3
62.5°	1385.4	824.9	160.5	167.6	191.8	242.5	274.4	243.7	207.7	192.4	187.6
65°	1260.9	713.4	150.5	157.5	177.6	223.0	260.2	231.3	198.3	182.9	178.8
67.5°	1029.1	567.6	139.8	147.5	165.8	207.1	247.2	221.3	187.6	177.6	174.1
70°	680.9	381.8	129.8	137.5	154.0	191.8	233.7	210.6	177.6	171.1	166.4
72.5°	312.7	205.3	119.2	126.9	140.4	174.7	216.5	194.7	164.0	159.9	152.8
75°	154.6	126.3	106.2	113.3	123.9	154.0	196.5	181.1	151.6	144.6	136.3
77.5°	112.7	94.4	91.5	98.5	107.4	136.3	175.2	167.0	139.3	129.2	124.5
80°	83.8	73.2	76.7	83.8	92.0	123.3	164.0	156.4	128.6	118.6	115.1
82.5°	51.3	49.0	59.0	67.3	77.3	113.3	156.4	142.8	115.7	106.2	102.1
85°	14.8	17.7	30.1	43.7	54.9	91.5	145.7	125.1	97.4	81.4	78.5
87.5°	0.0	1.8	9.4	20.1	32.5	60.8	112.1	97.9	74.3	60.2	57.8
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)