

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: P401406

Luminaire Tested: **ENT-SA1C-830-U-T2**

Issue Date: 5/20/2020

Test Information

Test Method: LM-79-08
Report Number: P401406
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2004-754-11)
Test Lab: INNOVATION CENTER
Issue Date: 5/20/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: ENT-SA1C-830-U-T2
Description: ENTRI LED LUMINAIRE
(1) 80 CRI, 3000K, 615mA LIGHTSQUARE WITH 16 LEDS AND TYPE II OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3568 lumens
Efficiency: N/A
Efficacy: 107.1 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type III - Medium - Non-Cutoff
BUG Rating: B1 - U0 - G1

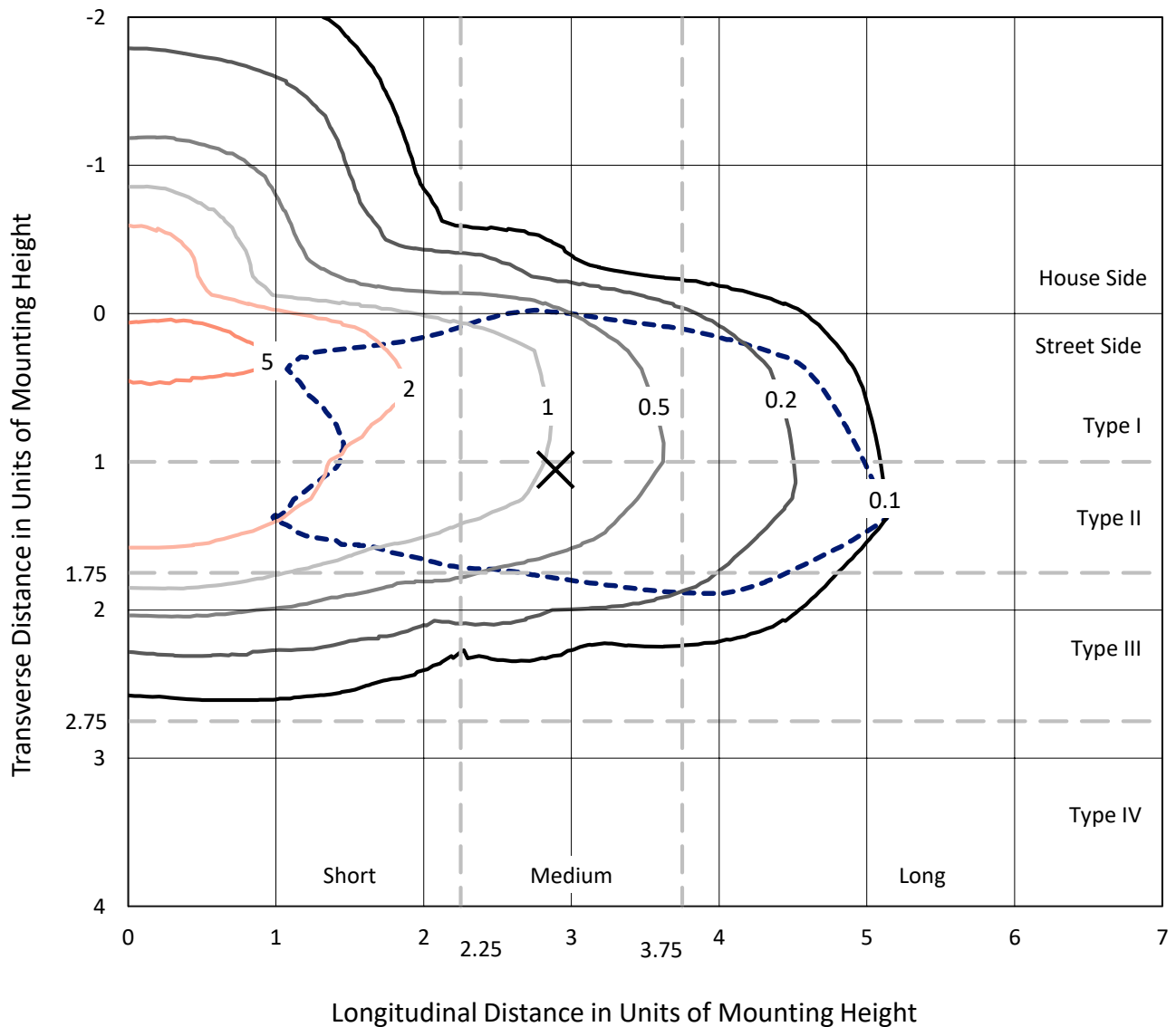
Input Watts (W): 33.3
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



REPORT NUMBER: P401406
 CATALOG NUMBER: ENT-SA1C-830-U-T2

Iso-Footcandle Lines of Horizontal Illumination

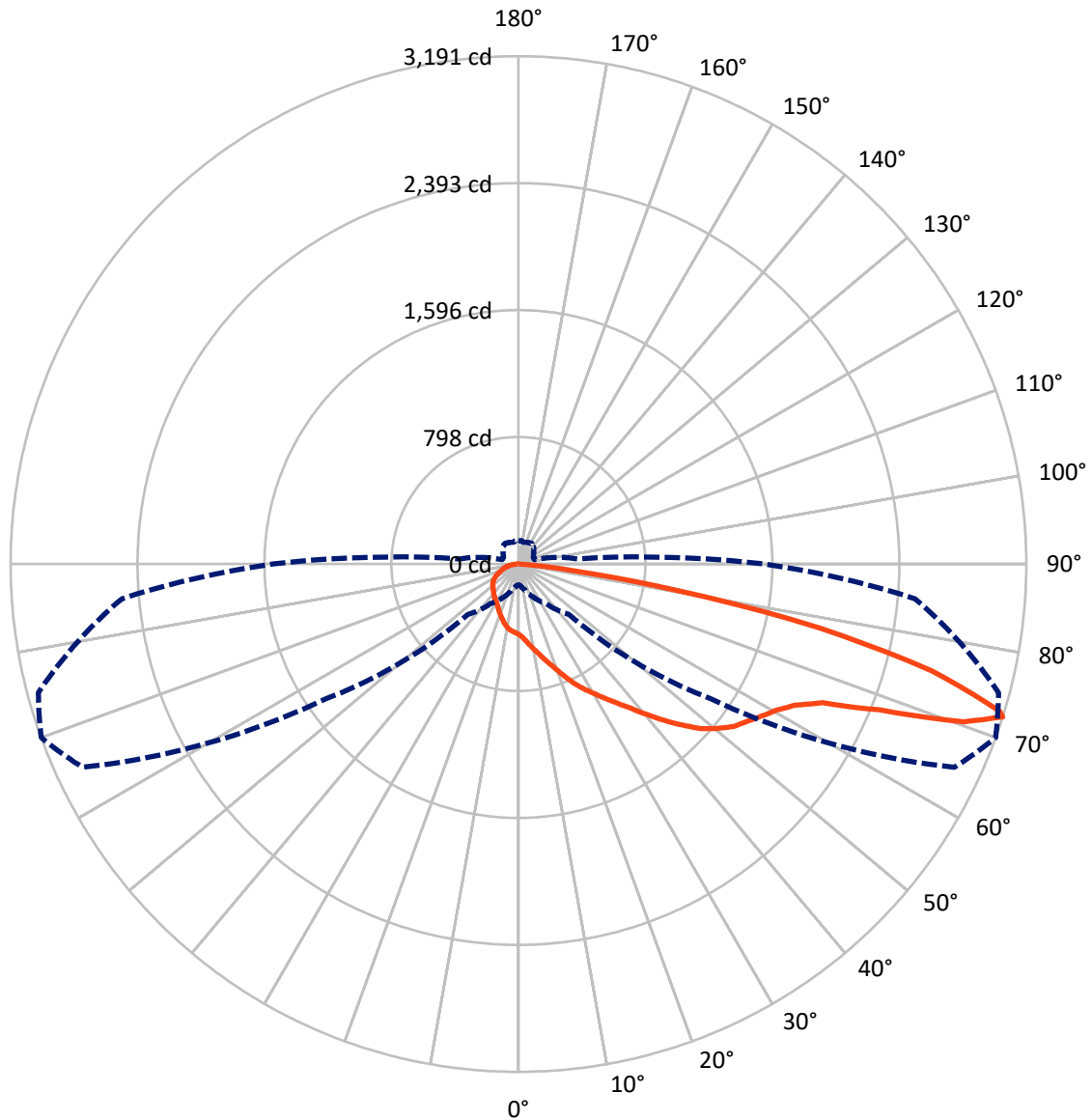
✕ Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 6.2 fc
 Type III - Medium - Non-Cutoff

REPORT NUMBER: P401406
CATALOG NUMBER: ENT-SA1C-830-U-T2

Luminous Intensity Polar Plot



— Vertical Plane Through 70-Deg Lateral - - - Horizontal Cone Through 72-Deg Vertical

REPORT NUMBER: P401406

CATALOG NUMBER: ENT-SA1C-830-U-T2

FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	663.0	0.0	663.0
	% Fixture	18.6	0.0	18.6
Street Side	Lumens	2905.0	0.0	2905.0
	% Fixture	81.4	0.0	81.4
Total	Lumens	3568.0	0.0	3568.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	44.4	1.2
10°-20°	142.5	4.0
20°-30°	252.3	7.1
30°-40°	375.1	10.5
40°-50°	544.2	15.3
50°-60°	743.5	20.8
60°-70°	814.1	22.8
70°-80°	579.0	16.2
80°-90°	72.7	2.0
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°	3568.0	100.0
0°-180°	3568.0	100.0



REPORT NUMBER: P401406

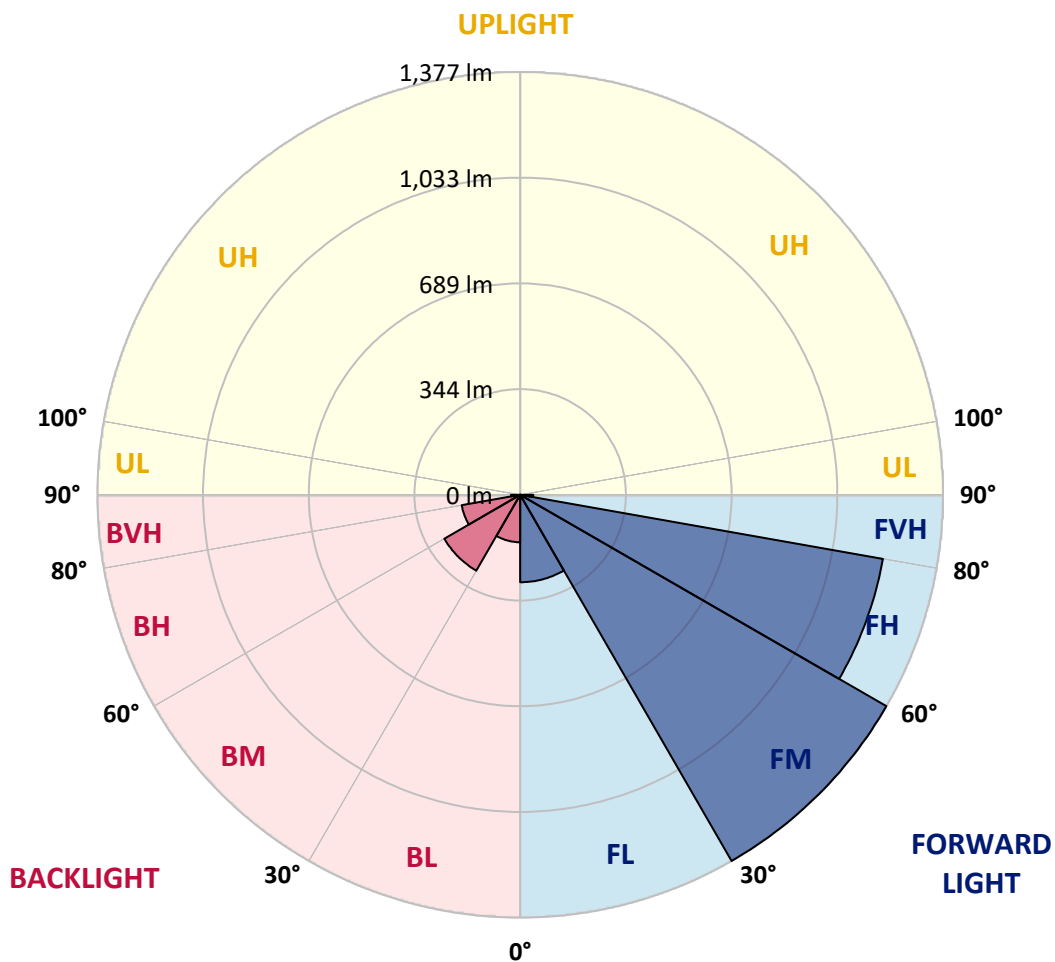
CATALOG NUMBER: ENT-SA1C-830-U-T2

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	284.8	8.0			
FM	(30°-60°)	1377.5	38.6			
FH	(60°-80°)	1199.8	33.6			G1/1800
FVH	(80°-90°)	42.9	1.2			G1/100
BL	(0°-30°)	154.5	4.3	B1/500		
BM	(30°-60°)	285.5	8.0	B1/1000		
BH	(60°-80°)	193.3	5.4	B1/500		G1/500
BVH	(80°-90°)	29.8	0.8			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 III Medium





REPORT NUMBER: P401406

CATALOG NUMBER: ENT-SA1C-830-U-T2

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	70°	75°	85°
0°	441.9	441.9	441.9	441.9	441.9	441.9	441.9	441.9	441.9	441.9	441.9
2.5°	491.3	488.8	489.3	484.7	482.1	476.0	469.4	462.3	458.7	456.1	447.5
5°	539.2	539.2	541.3	537.7	528.0	517.8	506.1	490.3	483.7	474.5	457.2
7.5°	579.0	580.0	580.0	579.0	570.3	559.1	543.8	524.4	513.7	500.5	473.5
10°	599.4	601.9	603.9	605.5	604.5	597.8	580.5	560.6	545.8	528.5	492.3
12.5°	609.5	610.6	614.1	621.8	627.9	633.0	620.3	596.8	582.0	561.1	512.7
15°	620.8	620.8	624.3	634.0	645.7	659.5	658.0	639.6	623.8	597.8	538.7
17.5°	627.9	629.9	636.6	646.8	663.1	686.0	697.7	687.5	667.1	639.6	566.7
20°	623.8	625.3	638.6	658.5	679.4	708.9	738.5	738.5	719.1	687.5	597.8
22.5°	631.5	634.0	643.2	662.0	690.6	728.8	777.2	794.0	777.2	742.6	634.0
25°	661.0	660.0	667.6	675.3	699.8	747.2	810.4	853.7	838.4	800.2	669.2
27.5°	703.8	703.8	707.9	707.4	716.1	762.4	839.4	906.2	893.4	847.6	698.2
30°	753.3	754.3	753.3	752.8	751.2	783.3	865.4	953.1	946.4	901.1	724.7
32.5°	813.4	816.0	811.9	801.7	795.6	813.4	887.3	1005.6	1007.6	954.1	750.7
35°	888.8	892.9	877.6	862.8	847.6	855.7	912.8	1055.0	1075.4	1014.2	782.3
37.5°	964.3	970.9	968.3	928.6	907.2	906.7	950.5	1116.7	1150.8	1092.7	827.2
40°	1028.0	1033.6	1036.6	1000.5	970.9	969.9	1006.1	1180.9	1243.6	1182.9	880.2
42.5°	1070.3	1075.4	1084.5	1063.1	1035.6	1048.4	1067.2	1244.6	1343.5	1293.0	945.4
45°	1116.1	1120.2	1125.8	1113.6	1099.3	1136.0	1144.7	1315.4	1443.3	1411.2	1021.9
47.5°	1165.1	1169.1	1172.2	1163.0	1157.9	1209.4	1220.6	1387.8	1544.3	1533.6	1096.3
50°	1219.1	1220.6	1223.7	1219.1	1220.6	1276.2	1283.3	1451.5	1624.3	1661.0	1173.7
52.5°	1311.9	1313.9	1314.9	1293.0	1285.4	1318.5	1333.8	1519.3	1694.6	1767.0	1242.0
55°	1385.2	1392.4	1424.5	1410.2	1391.9	1348.5	1375.6	1573.8	1744.6	1865.8	1313.4
57.5°	1325.1	1341.4	1421.4	1488.7	1540.2	1436.7	1425.0	1629.9	1802.1	1951.0	1396.5
60°	1150.3	1174.2	1290.4	1430.6	1597.3	1639.1	1526.4	1699.7	1864.8	2039.6	1485.6
62.5°	797.6	822.1	982.6	1206.4	1500.9	1754.7	1804.2	1823.5	1952.0	2130.4	1601.8
65°	382.2	407.2	539.7	775.7	1185.5	1680.3	2127.8	2080.4	2098.8	2245.5	1773.1
67.5°	243.1	256.4	308.3	422.5	689.6	1308.8	2244.0	2592.1	2446.3	2511.1	2114.1
70°	177.9	180.9	225.8	292.5	409.3	764.5	1981.5	3081.9	2967.7	2960.6	2525.3
72°	131.5	136.6	171.2	233.4	302.7	447.0	1474.4	3022.3	3191.0	3123.2	2500.9
72.5°	123.8	127.9	158.0	220.7	285.9	392.4	1321.0	2952.9	3163.4	3127.8	2454.0
75°	90.2	93.3	108.0	157.0	221.2	227.3	705.4	2266.4	2686.4	2986.1	2224.6
77.5°	62.2	64.2	71.9	96.3	151.4	153.9	299.2	1547.3	1938.7	2387.7	1710.9
80°	37.7	38.7	43.3	52.5	96.3	91.2	123.3	808.8	1011.7	1298.1	793.5
82.5°	15.8	16.3	18.9	20.9	40.8	43.3	49.9	264.0	334.8	405.7	228.8
85°	0.0	0.0	0.5	0.5	1.0	4.6	7.1	32.6	49.4	59.1	41.3
87.5°	0.0	0.0	0.5	0.5	0.5	1.0	1.0	1.5	2.0	2.0	3.1
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



REPORT NUMBER: P401406

CATALOG NUMBER: ENT-SA1C-830-U-T2

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	441.9	441.9	441.9	441.9	441.9	441.9	441.9	441.9	441.9	441.9	441.9
2.5°	443.4	441.4	435.2	430.1	426.1	419.4	418.9	413.8	413.8	412.3	411.3
5°	450.5	443.9	431.7	420.5	412.3	402.6	398.0	392.4	388.9	386.8	387.3
7.5°	459.7	448.5	427.6	408.7	393.5	381.2	374.1	369.5	367.0	365.9	365.9
10°	472.5	455.1	421.0	392.4	373.1	363.9	360.3	359.8	360.3	360.8	361.3
12.5°	486.7	459.7	408.7	373.1	357.8	354.2	356.2	360.8	364.9	366.4	366.4
15°	501.5	462.8	391.9	355.2	346.1	349.6	356.8	365.4	372.0	376.1	377.1
17.5°	516.8	463.3	374.1	338.9	335.9	345.0	357.8	371.5	382.2	388.9	389.9
20°	533.1	462.3	353.2	324.1	325.7	341.0	358.8	377.7	391.9	400.6	401.6
22.5°	550.9	458.2	332.8	309.9	317.0	336.9	357.8	379.7	395.0	405.2	407.2
25°	568.3	450.0	312.4	297.1	310.9	332.8	352.7	371.5	386.3	396.0	398.6
27.5°	577.4	432.7	293.1	287.4	306.3	326.7	341.0	353.7	361.9	368.0	370.5
30°	579.0	408.2	277.3	280.8	301.2	318.0	326.2	328.2	326.7	328.7	326.2
32.5°	575.9	381.7	264.5	275.7	293.1	305.8	307.8	301.7	292.5	279.8	280.3
35°	573.9	352.7	254.3	268.6	282.3	290.5	286.9	277.3	259.9	244.6	243.6
37.5°	577.4	326.2	245.7	259.4	268.6	272.2	267.1	254.3	239.0	225.8	224.2
40°	587.6	306.8	237.5	249.2	253.8	256.4	250.2	239.0	232.9	223.2	221.7
42.5°	607.5	293.6	229.9	238.0	240.0	242.6	236.5	228.8	234.4	232.4	232.4
45°	635.0	287.4	223.2	227.3	229.3	233.4	229.9	223.2	229.3	217.6	215.6
47.5°	670.7	289.5	218.6	216.6	222.7	229.9	225.8	217.6	215.6	194.7	191.1
50°	708.4	300.2	214.1	207.9	215.6	225.3	220.2	207.4	195.2	184.5	182.5
52.5°	752.8	318.0	210.0	198.3	207.4	220.2	216.6	202.8	190.1	182.5	180.9
55°	801.7	335.4	204.9	187.0	196.7	218.6	217.6	199.8	183.0	179.4	178.4
57.5°	856.7	349.6	198.8	174.3	186.0	214.1	213.0	192.6	180.9	177.9	177.4
60°	925.5	366.4	188.1	159.5	175.3	205.4	204.4	189.1	176.3	173.8	172.8
62.5°	1019.3	397.5	169.7	145.8	164.1	190.1	196.2	181.9	169.7	169.2	169.2
65°	1173.7	457.7	150.9	134.0	151.4	175.3	185.5	173.8	163.6	166.1	166.1
67.5°	1465.8	538.7	131.5	122.8	139.1	161.1	176.3	165.6	157.0	162.1	162.1
70°	1691.0	508.6	116.2	112.1	126.9	148.3	164.6	157.0	148.8	157.5	156.5
72°	1542.7	372.6	106.0	103.5	116.7	137.6	154.4	148.8	140.2	147.3	145.3
72.5°	1481.1	338.4	103.0	100.9	113.7	135.6	152.4	146.8	137.6	144.7	141.7
75°	1292.0	285.4	89.7	88.7	100.9	121.8	139.1	136.1	126.9	131.0	127.9
77.5°	1069.3	240.6	75.4	77.5	86.1	108.6	125.4	122.3	113.7	113.1	112.6
80°	501.5	134.0	62.2	63.7	72.4	92.8	108.0	106.0	97.9	96.8	95.3
82.5°	145.3	64.2	47.9	48.9	58.1	75.9	92.8	91.7	85.6	84.1	80.5
85°	27.0	20.9	26.0	30.6	42.3	63.2	84.6	82.6	73.4	66.8	61.7
87.5°	1.5	4.1	8.7	14.8	27.0	47.4	68.3	66.8	58.6	50.5	51.0
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)