

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: P401934

Luminaire Tested: **ENT-SA1F-827-U-T4W**

Issue Date: 5/20/2020

Test Information

Test Method: LM-79-08
Report Number: P401934
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2004-754-17)
Test Lab: INNOVATION CENTER
Issue Date: 5/20/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: ENT-SA1F-827-U-T4W
Description: ENTRI LED LUMINAIRE
(1) 80 CRI, 2700K, 1200mA LIGHTSQUARE WITH 16 LEDS AND TYPE IV WIDE OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5723 lumens
Efficiency: N/A
Efficacy: 86.6 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 - G2

Input Watts (W): 66.1
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

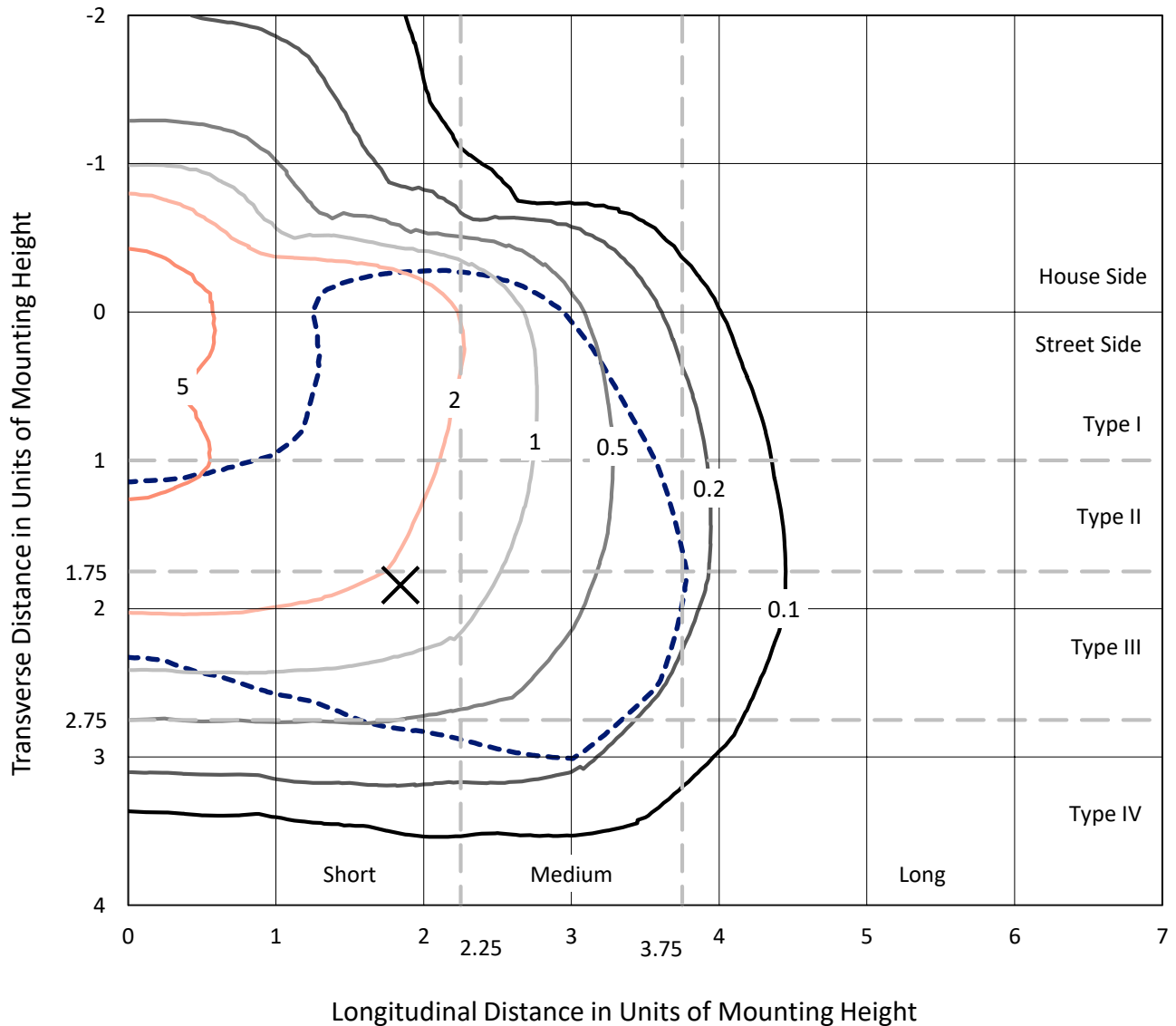


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Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd
 - - - 1/2 Max cd

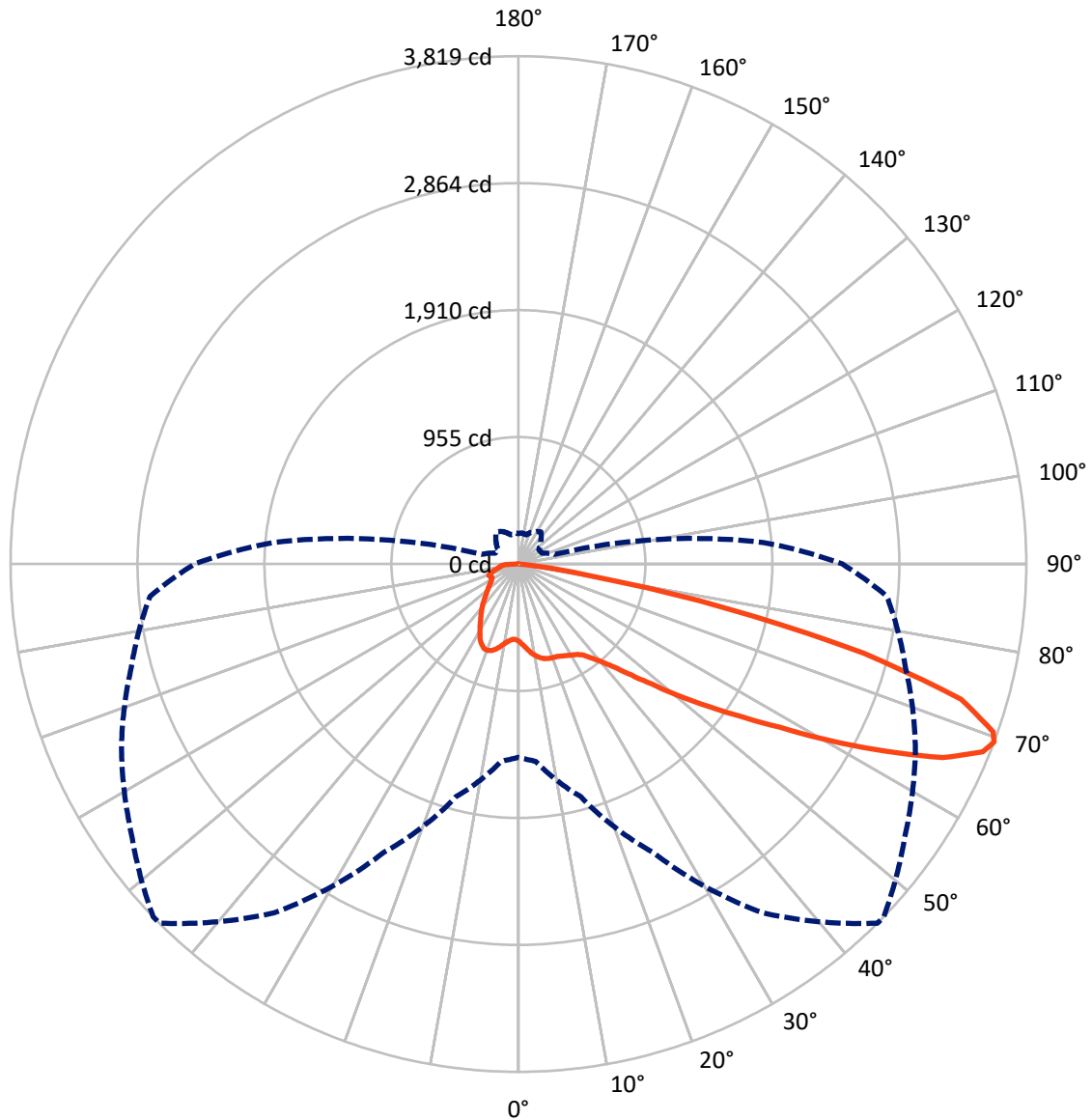


Based on 10 foot mounting height. Maximum calculated value = 7.1 fc
 Type IV - Short - Semi-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 45-Deg Lateral - - - Horizontal Cone Through 69-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1347.4	0.0	1347.4
	% Fixture	23.5	0.0	23.5
Street Side	Lumens	4375.6	0.0	4375.6
	% Fixture	76.5	0.0	76.5
Total	Lumens	5723.0	0.0	5723.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	59.1	1.0
10°-20°	196.1	3.4
20°-30°	331.4	5.8
30°-40°	479.6	8.4
40°-50°	724.1	12.7
50°-60°	1220.9	21.3
60°-70°	1679.7	29.3
70°-80°	930.8	16.3
80°-90°	101.3	1.8
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°	5723.0	100.0
0°-180°	5723.0	100.0

Coefficient of Utilization



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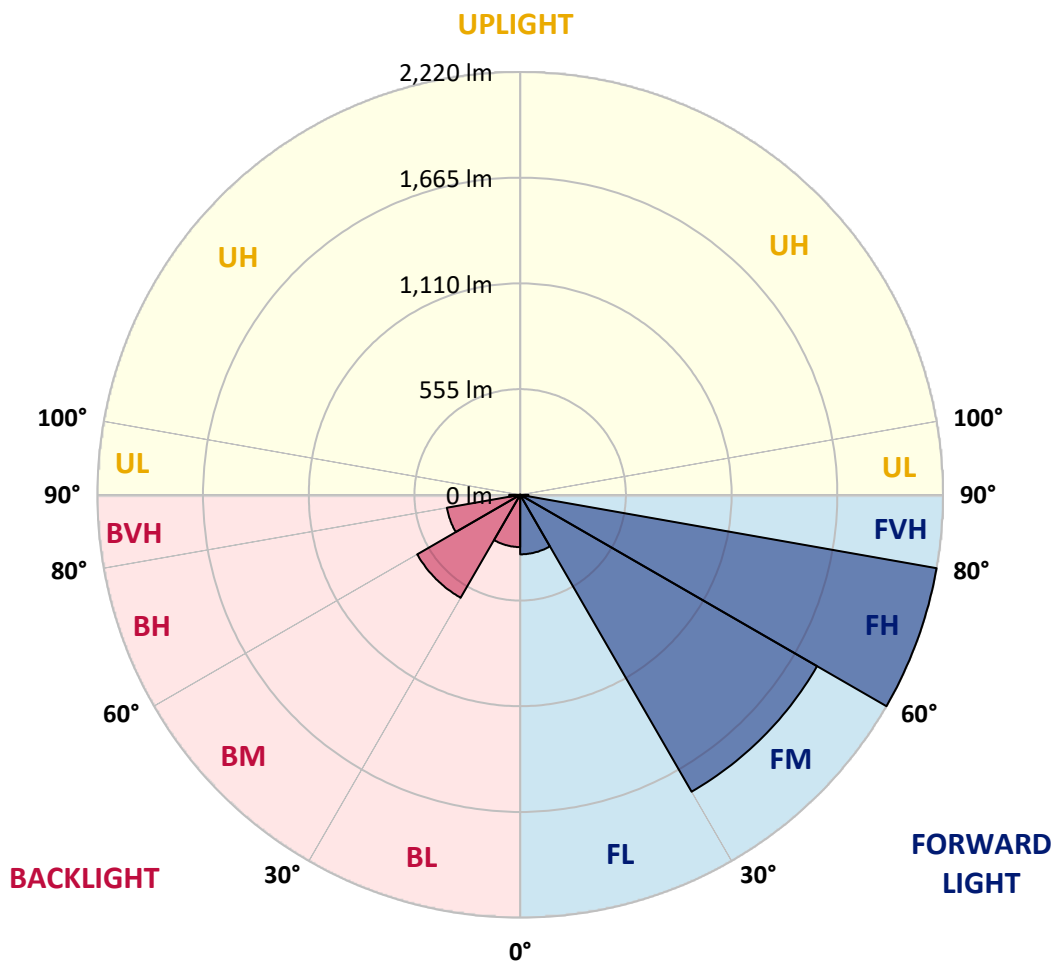
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	312.4	5.5			
FM	(30°-60°)	1799.9	31.5			
FH	(60°-80°)	2219.9	38.8			G2/5000
FVH	(80°-90°)	43.4	0.8			G1/100
BL	(0°-30°)	274.4	4.8	B1/500		
BM	(30°-60°)	624.6	10.9	B1/1000		
BH	(60°-80°)	390.5	6.8	B1/500		G1/500
BVH	(80°-90°)	57.9	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-G2

Type IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	46°	55°	65°	75°	85°
0°	580.9	580.9	580.9	580.9	580.9	580.9	580.9	580.9	580.9	580.9	580.9
2.5°	617.5	616.7	617.5	614.3	611.0	606.1	604.5	598.8	594.7	589.0	584.2
5°	663.1	665.5	664.7	660.6	647.6	637.8	637.8	625.6	612.6	600.4	589.0
7.5°	712.7	712.7	707.8	699.7	686.7	672.0	670.4	654.1	635.4	618.3	600.4
10°	748.5	750.1	742.8	731.4	715.1	699.7	698.1	679.3	661.4	639.5	617.5
12.5°	773.7	773.7	767.2	756.6	737.1	722.5	720.8	703.7	685.0	662.3	637.0
15°	786.7	785.1	779.4	768.0	750.9	738.7	736.3	721.6	706.2	683.4	656.6
17.5°	784.3	784.3	779.4	768.0	755.8	746.1	744.4	733.9	722.5	700.5	673.6
20°	773.7	772.9	771.3	762.3	754.2	750.1	748.5	743.6	736.3	717.6	692.4
22.5°	764.0	763.1	760.7	755.0	751.8	754.2	754.2	753.4	752.6	737.9	713.5
25°	769.6	768.8	764.0	755.8	755.0	766.4	767.2	769.6	771.3	759.1	733.9
27.5°	809.5	807.1	793.2	772.1	764.8	779.4	781.0	788.4	786.7	773.7	751.8
30°	887.6	888.4	857.5	812.0	787.5	794.1	794.9	803.0	800.6	790.0	772.1
32.5°	1005.6	1005.6	955.1	886.0	824.2	811.1	808.7	816.0	825.8	812.0	794.1
35°	1155.3	1151.2	1090.2	983.6	886.8	840.4	838.8	835.5	852.6	839.6	813.6
37.5°	1305.8	1291.2	1231.8	1114.6	974.7	897.4	890.9	881.1	890.9	863.2	840.4
40°	1427.0	1424.6	1375.8	1257.0	1078.8	966.5	961.7	918.5	925.0	903.1	894.1
42.5°	1560.5	1562.1	1529.5	1409.9	1203.3	1060.1	1047.1	980.4	999.1	990.9	986.9
45°	1706.9	1705.3	1680.9	1555.6	1355.4	1190.3	1174.0	1091.8	1130.1	1125.2	1148.0
47.5°	1819.2	1828.1	1814.3	1725.6	1536.0	1348.1	1335.9	1235.8	1293.6	1332.6	1375.8
50°	1972.1	1971.3	1933.9	1897.3	1745.9	1549.9	1537.7	1426.2	1509.2	1566.1	1645.1
52.5°	2161.7	2155.2	2077.9	2064.9	2001.4	1770.4	1759.8	1643.4	1762.2	1811.8	1972.1
55°	2280.5	2279.7	2239.8	2262.6	2264.2	2016.1	2003.0	1899.7	2034.0	2090.9	2333.4
57.5°	2379.7	2380.5	2413.9	2493.6	2547.3	2314.6	2309.8	2183.7	2319.5	2399.3	2685.6
60°	2456.2	2472.5	2566.0	2748.3	2837.8	2695.4	2674.2	2540.8	2631.9	2663.7	2954.9
62.5°	2425.3	2446.4	2630.3	2898.8	3129.0	3098.9	3091.6	2898.8	2898.0	2881.7	3155.9
65°	2181.2	2226.8	2516.4	2893.1	3321.0	3509.0	3498.4	3236.4	3145.3	3064.0	3216.1
67.5°	1785.0	1794.8	2143.8	2671.8	3319.4	3766.9	3755.5	3482.1	3299.1	3099.7	3039.5
69°	1453.1	1488.9	1811.8	2391.9	3202.3	3819.0	3819.0	3550.5	3293.4	3014.3	2780.8
70°	1257.0	1258.6	1570.2	2169.0	3042.8	3788.0	3795.4	3550.5	3247.0	2902.9	2551.4
72.5°	589.0	625.6	822.5	1415.6	2457.8	3482.1	3500.0	3316.2	2977.7	2501.0	1914.4
75°	176.5	183.1	274.2	671.2	1408.3	2682.4	2722.2	2758.9	2425.3	1841.1	1178.9
77.5°	105.0	104.1	132.6	227.8	651.7	1590.6	1608.5	1764.7	1573.5	1023.5	535.3
80°	51.3	52.9	70.8	110.6	244.1	577.6	635.4	825.0	697.2	400.3	196.1
82.5°	17.1	18.7	29.3	44.7	103.3	186.3	205.8	258.7	222.9	145.6	83.8
85°	0.0	0.0	0.8	1.6	5.7	13.8	13.8	30.9	46.4	51.3	27.7
87.5°	0.0	0.0	0.8	0.8	1.6	1.6	1.6	1.6	1.6	1.6	2.4
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°	580.9	580.9	580.9	580.9	580.9	580.9	580.9	580.9	580.9	580.9	580.9
2.5°	581.7	580.1	576.8	573.6	571.9	567.9	568.7	567.1	566.3	566.3	567.1
5°	583.3	580.9	576.0	572.8	569.5	567.9	571.9	573.6	575.2	575.2	576.0
7.5°	593.1	588.2	582.5	578.5	579.3	581.7	588.2	593.1	595.5	597.2	598.8
10°	609.4	603.7	595.5	594.7	596.4	602.9	611.8	619.1	625.6	629.7	629.7
12.5°	626.5	619.1	612.6	614.3	621.6	631.3	640.3	648.4	654.1	658.2	659.0
15°	645.2	637.8	631.3	635.4	647.6	659.0	667.1	670.4	672.8	676.9	677.7
17.5°	662.3	655.7	650.1	660.6	671.2	680.2	682.6	681.0	677.7	680.2	681.8
20°	680.2	674.5	671.2	682.6	689.9	690.7	684.2	676.9	668.8	668.8	669.6
22.5°	702.1	694.8	693.2	698.9	696.4	686.7	670.4	659.0	647.6	646.0	648.4
25°	723.3	716.0	715.1	711.1	689.9	664.7	642.7	629.7	620.8	621.6	626.5
27.5°	744.4	739.5	740.4	718.4	671.2	633.0	603.7	593.1	595.5	597.2	602.1
30°	765.6	765.6	768.8	718.4	645.2	588.2	560.6	559.7	566.3	571.1	576.8
32.5°	790.0	797.3	791.6	709.4	610.2	542.7	520.7	522.3	529.6	537.8	542.7
35°	813.6	830.7	814.4	689.1	562.2	501.2	483.3	480.8	486.5	493.8	496.3
37.5°	851.0	878.7	833.9	657.4	512.6	464.6	446.7	440.1	434.5	440.1	439.3
40°	916.1	949.5	848.6	604.5	464.6	430.4	411.7	399.5	385.6	373.4	373.4
42.5°	1020.2	1042.2	856.7	540.2	416.6	396.2	377.5	359.6	338.5	316.5	316.5
45°	1190.3	1195.2	860.0	471.9	372.6	362.0	342.5	325.4	297.8	275.8	270.9
47.5°	1417.3	1396.1	868.1	406.0	334.4	331.9	315.7	296.1	266.0	245.7	243.3
50°	1722.4	1631.2	903.9	353.1	303.5	305.9	293.7	270.9	242.4	227.8	224.5
52.5°	2065.7	1928.2	931.6	310.8	276.6	283.9	275.0	253.0	228.6	216.4	214.0
55°	2440.7	2213.8	925.0	282.3	256.3	264.4	261.2	242.4	220.5	209.9	207.5
57.5°	2746.7	2414.7	868.1	257.1	235.9	247.3	250.6	235.9	215.6	205.8	203.4
60°	2976.1	2524.5	750.9	235.9	219.7	233.5	242.4	231.9	214.8	209.1	206.6
62.5°	3080.2	2514.8	598.8	219.7	207.5	223.7	243.3	238.4	227.0	231.1	231.9
65°	3021.6	2391.9	449.1	207.5	200.1	225.4	257.1	257.1	240.0	247.3	248.1
67.5°	2721.4	2070.6	327.1	198.5	192.8	233.5	283.1	266.9	234.3	240.0	237.6
69°	2435.9	1852.5	280.7	193.6	187.1	237.6	294.5	268.5	227.8	234.3	227.8
70°	2226.0	1655.6	252.2	189.6	184.7	237.6	297.8	266.9	224.5	229.4	222.1
72.5°	1584.0	1149.6	207.5	181.4	175.7	219.7	292.1	257.9	215.6	209.9	196.1
75°	921.0	635.4	176.5	172.5	155.4	192.8	277.4	248.1	206.6	196.1	186.3
77.5°	386.5	283.9	150.5	157.0	137.5	171.7	259.5	238.4	196.1	181.4	176.5
80°	157.0	141.6	125.3	135.9	119.6	151.3	239.2	222.1	180.6	166.0	158.6
82.5°	82.2	78.1	96.0	109.8	99.3	139.1	225.4	210.7	167.6	153.0	144.0
85°	24.4	32.5	54.5	74.8	75.7	125.3	218.9	195.3	145.6	126.1	124.5
87.5°	1.6	6.5	18.7	39.1	49.6	96.0	177.4	160.3	118.0	99.3	100.1
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)