

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: P401826

Luminaire Tested: **ENT-SA1F-730-U-T4W**

Issue Date: 5/20/2020

Test Information

Test Method: LM-79-08
Report Number: P401826
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-730-U-T4W
Description: ENTRI LED LUMINAIRE
(1) 70 CRI, 3000K, 1200mA LIGHTSQUARE WITH 16 LEDS AND TYPE IV WIDE OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7090 lumens
Efficiency: N/A
Efficacy: 107.3 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

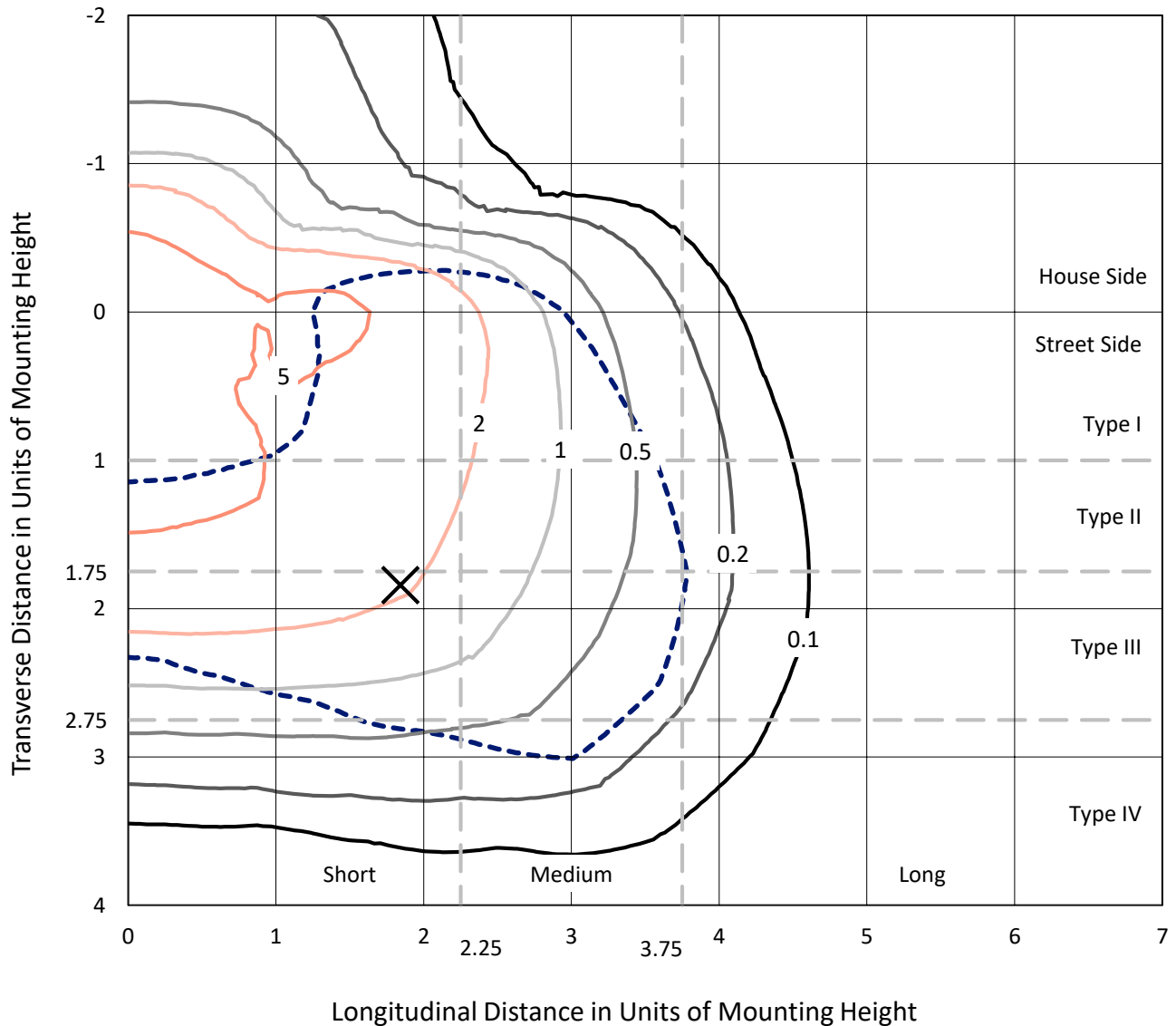
Input Watts (W): 66.1
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

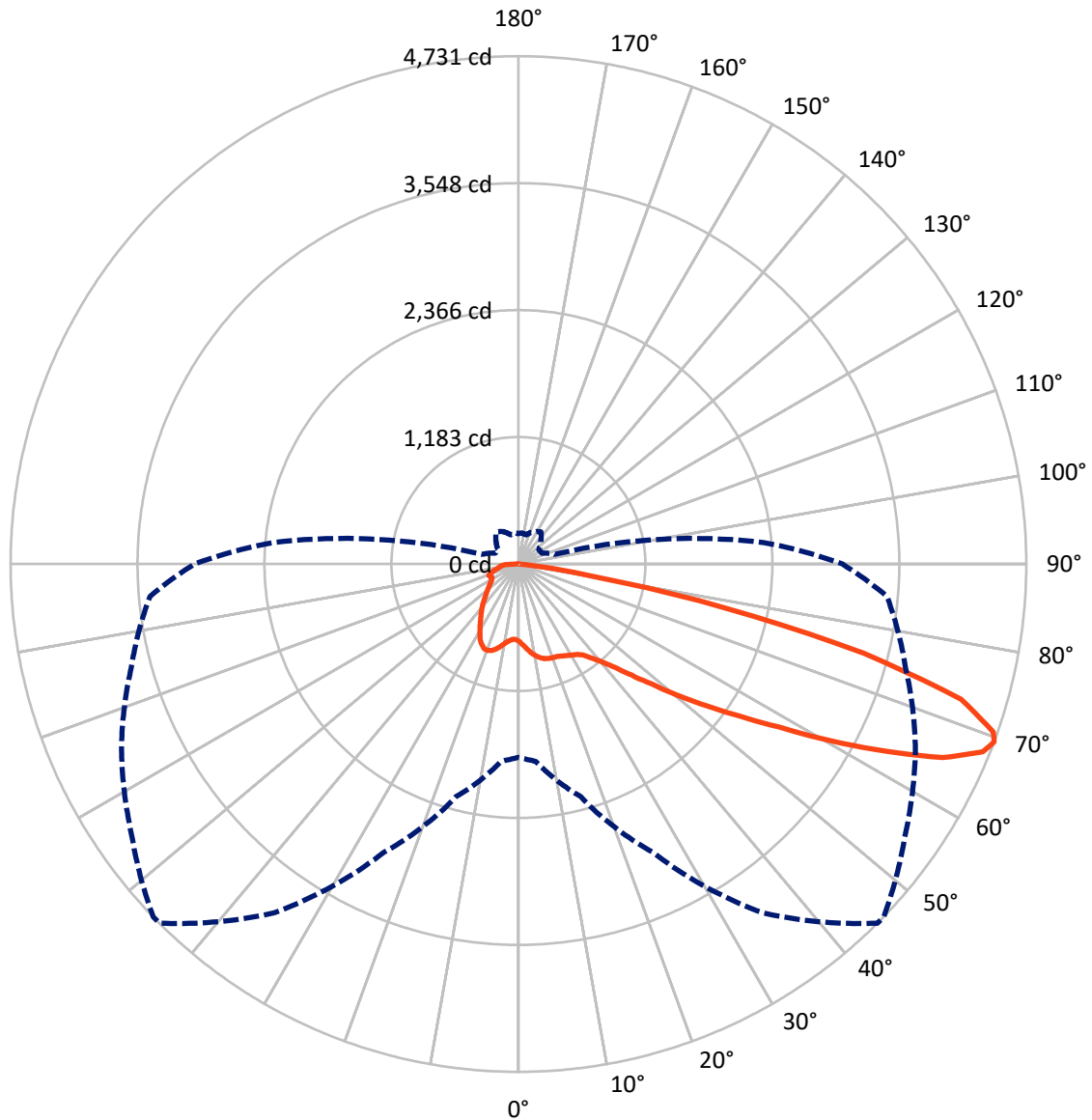
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 8.8 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	1669.2	0.0	1669.2
	% Fixture	23.5	0.0	23.5
Street Side	Lumens	5420.8	0.0	5420.8
	% Fixture	76.5	0.0	76.5
Total	Lumens	7090.0	0.0	7090.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	73.3	1.0
10°-20°	243.0	3.4
20°-30°	410.6	5.8
30°-40°	594.1	8.4
40°-50°	897.0	12.7
50°-60°	1512.5	21.3
60°-70°	2080.9	29.3
70°-80°	1153.1	16.3
80°-90°	125.5	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°	7090.0	100.0
0°-180°	7090.0	100.0

Coefficient of Utilization



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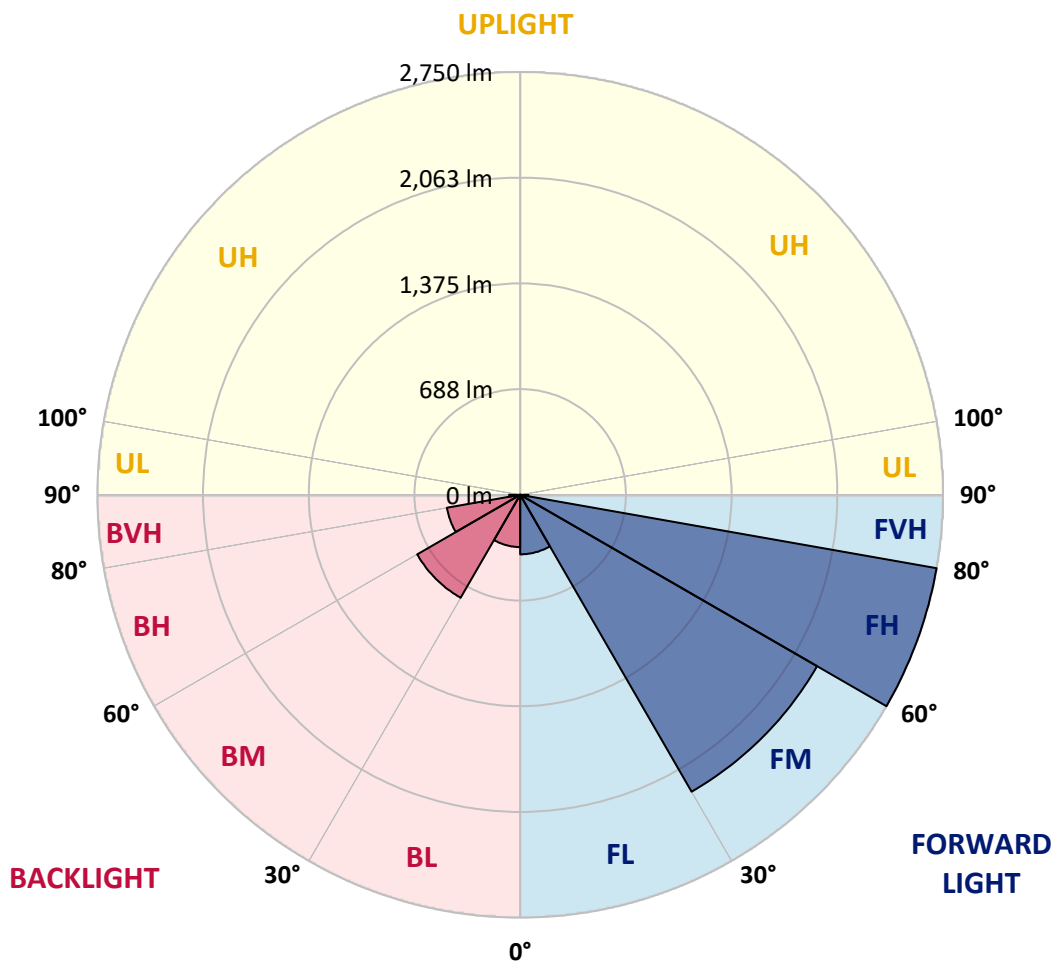
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	387.0	5.5			
FM	(30°-60°)	2229.9	31.5			
FH	(60°-80°)	2750.1	38.8			G2/5000
FVH	(80°-90°)	53.7	0.8			G1/100
BL	(0°-30°)	339.9	4.8	B1/500		
BM	(30°-60°)	773.8	10.9	B1/1000		
BH	(60°-80°)	483.8	6.8	B1/500		G1/500
BVH	(80°-90°)	71.8	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°	719.7	719.7	719.7	719.7	719.7	719.7	719.7	719.7	719.7	719.7	719.7
2.5°	765.0	764.0	765.0	761.0	756.9	750.9	748.9	741.8	736.8	729.7	723.7
5°	821.5	824.5	823.5	818.4	802.3	790.2	790.2	775.1	759.0	743.8	729.7
7.5°	882.9	882.9	876.9	866.8	850.7	832.5	830.5	810.4	787.2	766.0	743.8
10°	927.3	929.3	920.2	906.1	886.0	866.8	864.8	841.6	819.4	792.2	765.0
12.5°	958.5	958.5	950.5	937.4	913.2	895.0	893.0	871.8	848.7	820.4	789.2
15°	974.7	972.6	965.6	951.5	930.3	915.2	912.2	894.0	874.9	846.6	813.4
17.5°	971.6	971.6	965.6	951.5	936.4	924.3	922.2	909.1	895.0	867.8	834.6
20°	958.5	957.5	955.5	944.4	934.3	929.3	927.3	921.2	912.2	889.0	857.7
22.5°	946.4	945.4	942.4	935.3	931.3	934.3	934.3	933.3	932.3	914.2	883.9
25°	953.5	952.5	946.4	936.4	935.3	949.5	950.5	953.5	955.5	940.4	909.1
27.5°	1002.9	999.9	982.7	956.5	947.4	965.6	967.6	976.7	974.7	958.5	931.3
30°	1099.6	1100.6	1062.3	1005.9	975.7	983.7	984.7	994.8	991.8	978.7	956.5
32.5°	1245.8	1245.8	1183.3	1097.6	1021.0	1004.9	1001.9	1010.9	1023.0	1005.9	983.7
35°	1431.2	1426.2	1350.6	1218.6	1098.6	1041.2	1039.2	1035.1	1056.3	1040.2	1007.9
37.5°	1617.7	1599.6	1526.0	1380.8	1207.5	1111.7	1103.7	1091.6	1103.7	1069.4	1041.2
40°	1767.9	1764.9	1704.4	1557.2	1336.5	1197.4	1191.4	1137.9	1146.0	1118.8	1107.7
42.5°	1933.2	1935.2	1894.9	1746.7	1490.7	1313.3	1297.2	1214.5	1237.7	1227.6	1222.6
45°	2114.6	2112.6	2082.4	1927.1	1679.2	1474.6	1454.4	1352.6	1400.0	1393.9	1422.2
47.5°	2253.7	2264.8	2247.7	2137.8	1902.9	1670.1	1655.0	1531.0	1602.6	1651.0	1704.4
50°	2443.2	2442.2	2395.8	2350.5	2163.0	1920.1	1905.0	1766.9	1869.7	1940.2	2038.0
52.5°	2678.0	2670.0	2574.2	2558.1	2479.5	2193.2	2180.1	2036.0	2183.1	2244.6	2443.2
55°	2825.2	2824.2	2774.8	2803.0	2805.0	2497.6	2481.5	2353.5	2519.8	2590.3	2890.7
57.5°	2948.2	2949.2	2990.5	3089.3	3155.8	2867.5	2861.5	2705.2	2873.6	2972.3	3327.1
60°	3042.9	3063.1	3179.0	3404.7	3515.6	3339.2	3313.0	3147.7	3260.6	3299.9	3660.7
62.5°	3004.6	3030.8	3258.6	3591.2	3876.4	3839.1	3830.1	3591.2	3590.2	3570.0	3909.7
65°	2702.2	2758.7	3117.5	3584.1	4114.3	4347.1	4334.0	4009.5	3896.6	3795.8	3984.3
67.5°	2211.4	2223.5	2655.9	3310.0	4112.3	4666.6	4652.5	4313.9	4087.1	3840.2	3765.6
69°	1800.1	1844.5	2244.6	2963.3	3967.2	4731.2	4731.2	4398.5	4080.0	3734.3	3445.1
70°	1557.2	1559.2	1945.3	2687.1	3769.6	4692.9	4701.9	4398.5	4022.6	3596.2	3160.8
72.5°	729.7	775.1	1019.0	1753.8	3044.9	4313.9	4336.1	4108.3	3689.0	3098.3	2371.6
75°	218.7	226.8	339.7	831.5	1744.7	3323.1	3372.5	3417.8	3004.6	2280.9	1460.5
77.5°	130.0	129.0	164.3	282.2	807.3	1970.5	1992.6	2186.2	1949.3	1268.0	663.2
80°	63.5	65.5	87.7	137.1	302.4	715.6	787.2	1022.0	863.8	495.9	242.9
82.5°	21.2	23.2	36.3	55.4	128.0	230.8	255.0	320.5	276.2	180.4	103.8
85°	0.0	0.0	1.0	2.0	7.1	17.1	17.1	38.3	57.5	63.5	34.3
87.5°	0.0	0.0	1.0	1.0	2.0	2.0	2.0	2.0	2.0	2.0	3.0
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°	719.7	719.7	719.7	719.7	719.7	719.7	719.7	719.7	719.7	719.7	719.7
2.5°	720.7	718.6	714.6	710.6	708.6	703.5	704.5	702.5	701.5	701.5	702.5
5°	722.7	719.7	713.6	709.6	705.5	703.5	708.6	710.6	712.6	712.6	713.6
7.5°	734.8	728.7	721.7	716.6	717.6	720.7	728.7	734.8	737.8	739.8	741.8
10°	754.9	747.9	737.8	736.8	738.8	746.9	758.0	767.0	775.1	780.1	780.1
12.5°	776.1	767.0	759.0	761.0	770.0	782.1	793.2	803.3	810.4	815.4	816.4
15°	799.3	790.2	782.1	787.2	802.3	816.4	826.5	830.5	833.5	838.6	839.6
17.5°	820.4	812.4	805.3	818.4	831.5	842.6	845.6	843.6	839.6	842.6	844.6
20°	842.6	835.6	831.5	845.6	854.7	855.7	847.7	838.6	828.5	828.5	829.5
22.5°	869.8	860.8	858.7	865.8	862.8	850.7	830.5	816.4	802.3	800.3	803.3
25°	896.0	887.0	886.0	880.9	854.7	823.5	796.3	780.1	769.0	770.0	776.1
27.5°	922.2	916.2	917.2	890.0	831.5	784.2	747.9	734.8	737.8	739.8	745.9
30°	948.4	948.4	952.5	890.0	799.3	728.7	694.5	693.4	701.5	707.6	714.6
32.5°	978.7	987.8	980.7	878.9	755.9	672.3	645.1	647.1	656.2	666.2	672.3
35°	1007.9	1029.1	1008.9	853.7	696.5	620.9	598.7	595.7	602.7	611.8	614.8
37.5°	1054.3	1088.5	1033.1	814.4	635.0	575.5	553.3	545.3	538.2	545.3	544.3
40°	1134.9	1176.2	1051.3	748.9	575.5	533.2	510.0	494.9	477.8	462.6	462.6
42.5°	1263.9	1291.1	1061.3	669.3	516.1	490.9	467.7	445.5	419.3	392.1	392.1
45°	1474.6	1480.6	1065.4	584.6	461.6	448.5	424.3	403.2	368.9	341.7	335.6
47.5°	1755.8	1729.6	1075.4	502.9	414.3	411.2	391.1	366.9	329.6	304.4	301.4
50°	2133.8	2020.9	1119.8	437.4	376.0	379.0	363.9	335.6	300.4	282.2	278.2
52.5°	2559.1	2388.8	1154.1	385.0	342.7	351.8	340.7	313.5	283.2	268.1	265.1
55°	3023.7	2742.5	1146.0	349.7	317.5	327.6	323.5	300.4	273.1	260.0	257.0
57.5°	3402.7	2991.5	1075.4	318.5	292.3	306.4	310.4	292.3	267.1	255.0	252.0
60°	3687.0	3127.6	930.3	292.3	272.1	289.3	300.4	287.3	266.1	259.0	256.0
62.5°	3816.0	3115.5	741.8	272.1	257.0	277.2	301.4	295.3	281.2	286.2	287.3
65°	3743.4	2963.3	556.4	257.0	247.9	279.2	318.5	318.5	297.3	306.4	307.4
67.5°	3371.5	2565.1	405.2	245.9	238.9	289.3	350.8	330.6	290.3	297.3	294.3
69°	3017.7	2295.0	347.7	239.9	231.8	294.3	364.9	332.6	282.2	290.3	282.2
70°	2757.7	2051.1	312.5	234.8	228.8	294.3	368.9	330.6	278.2	284.2	275.2
72.5°	1962.4	1424.2	257.0	224.8	217.7	272.1	361.8	319.5	267.1	260.0	242.9
75°	1141.0	787.2	218.7	213.7	192.5	238.9	343.7	307.4	256.0	242.9	230.8
77.5°	478.8	351.8	186.5	194.5	170.3	212.7	321.5	295.3	242.9	224.8	218.7
80°	194.5	175.4	155.2	168.3	148.2	187.5	296.3	275.2	223.8	205.6	196.5
82.5°	101.8	96.8	118.9	136.1	123.0	172.4	279.2	261.1	207.6	189.5	178.4
85°	30.2	40.3	67.5	92.7	93.7	155.2	271.1	241.9	180.4	156.2	154.2
87.5°	2.0	8.1	23.2	48.4	61.5	118.9	219.7	198.6	146.1	123.0	124.0
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)