

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: P401930

Luminaire Tested: **ENT-SA1F-827-U-T3**

Issue Date: 5/20/2020

Test Information

Test Method: LM-79-08
Report Number: P401930
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2004-754-13)
Test Lab: INNOVATION CENTER
Issue Date: 5/20/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: ENT-SA1F-827-U-T3
Description: ENTRI LED LUMINAIRE
(1) 80 CRI, 2700K, 1200mA LIGHTSQUARE WITH 16 LEDS AND TYPE III OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5827 lumens
Efficiency: N/A
Efficacy: 88.2 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 - G2

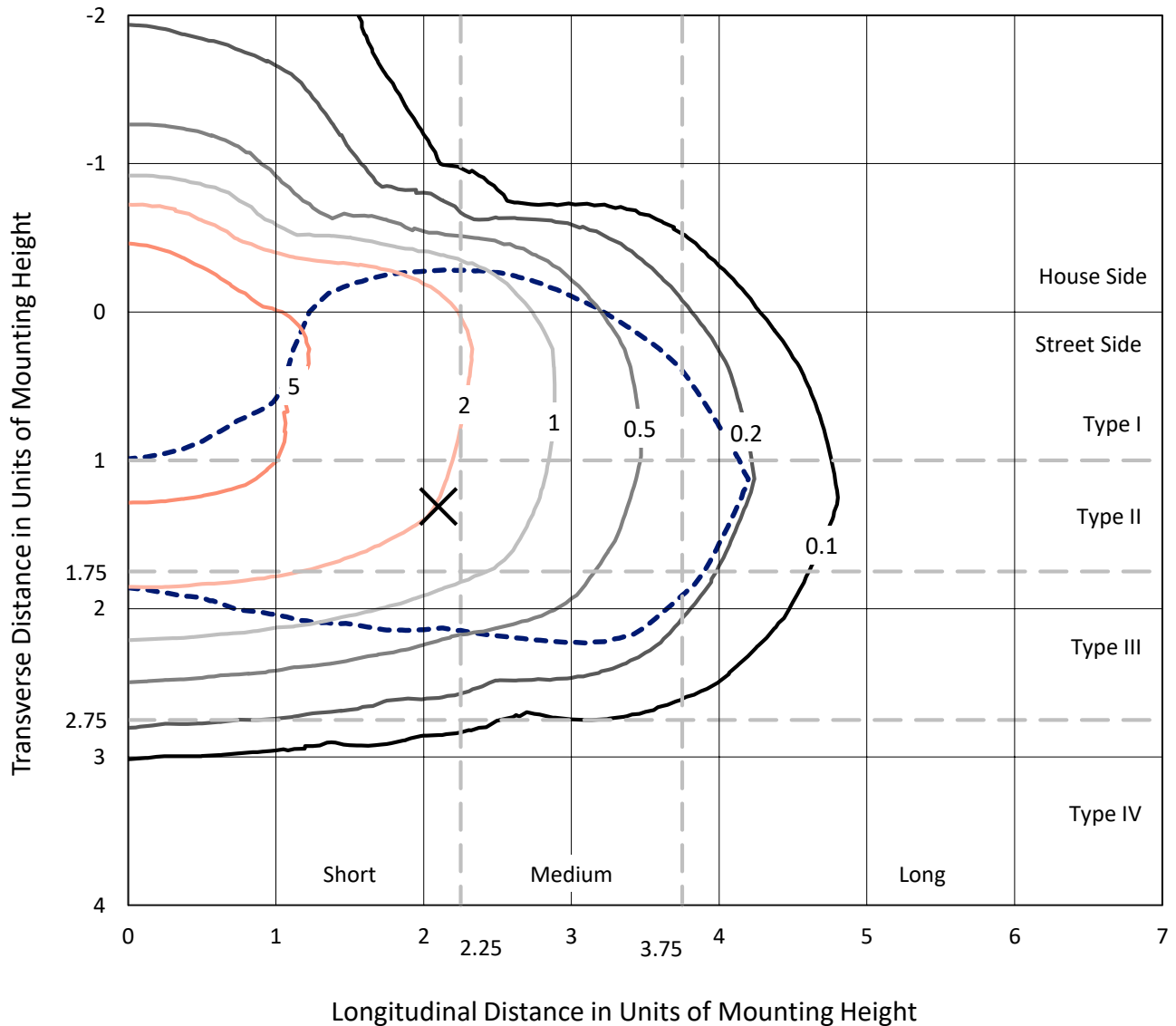
Input Watts (W): 66.1
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

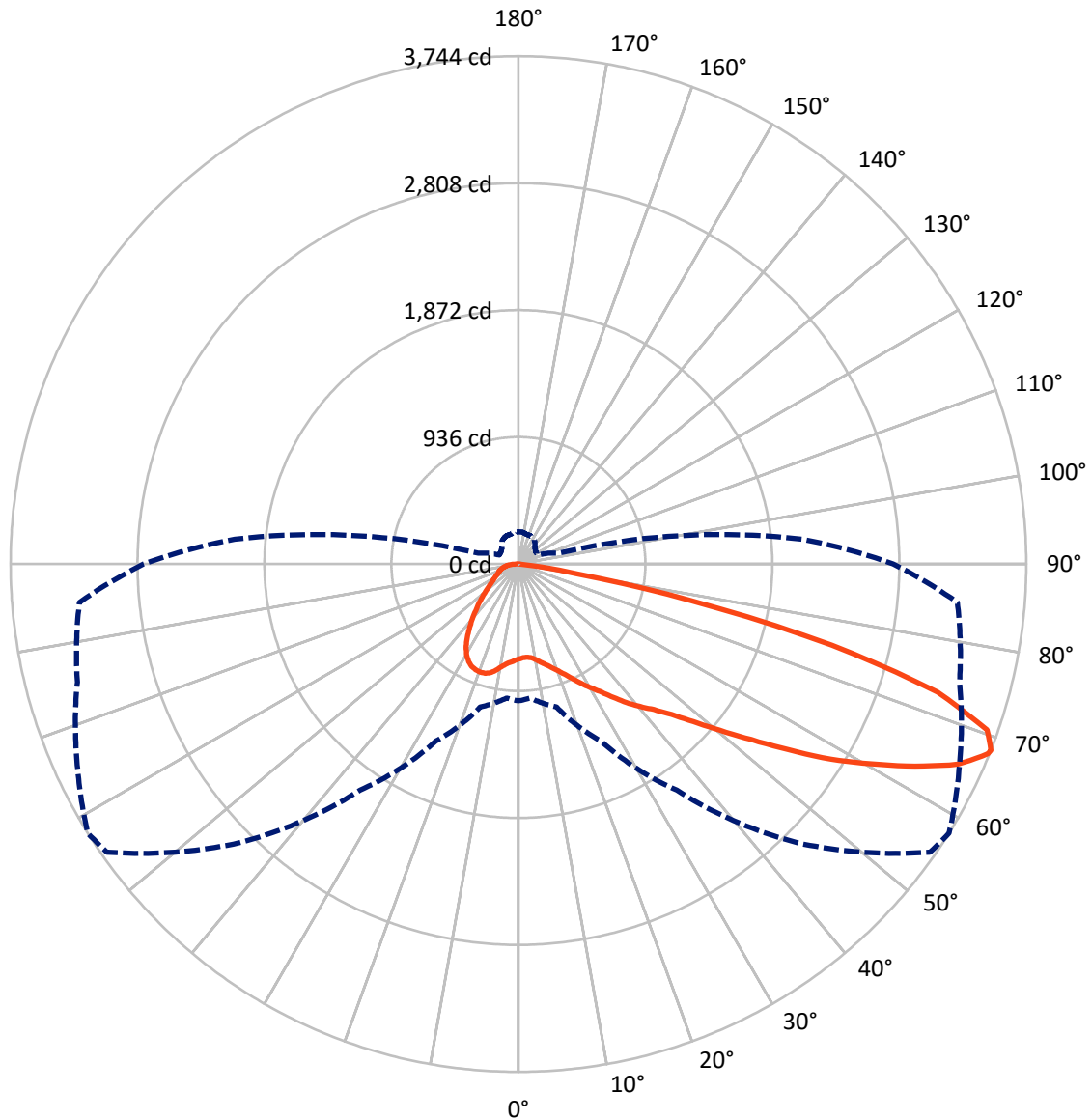
✕ Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 7.8 fc
 Type III - Short - Semi-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 58-Deg Lateral - - - Horizontal Cone Through 68-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1364.4	0.0	1364.4
	% Fixture	23.4	0.0	23.4
Street Side	Lumens	4462.6	0.0	4462.6
	% Fixture	76.6	0.0	76.6
Total	Lumens	5827.0	0.0	5827.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	68.9	1.2
10°-20°	225.4	3.9
20°-30°	405.4	7.0
30°-40°	595.5	10.2
40°-50°	873.4	15.0
50°-60°	1305.6	22.4
60°-70°	1526.6	26.2
70°-80°	752.7	12.9
80°-90°	73.4	1.3
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°	5827.0	100.0
0°-180°	5827.0	100.0



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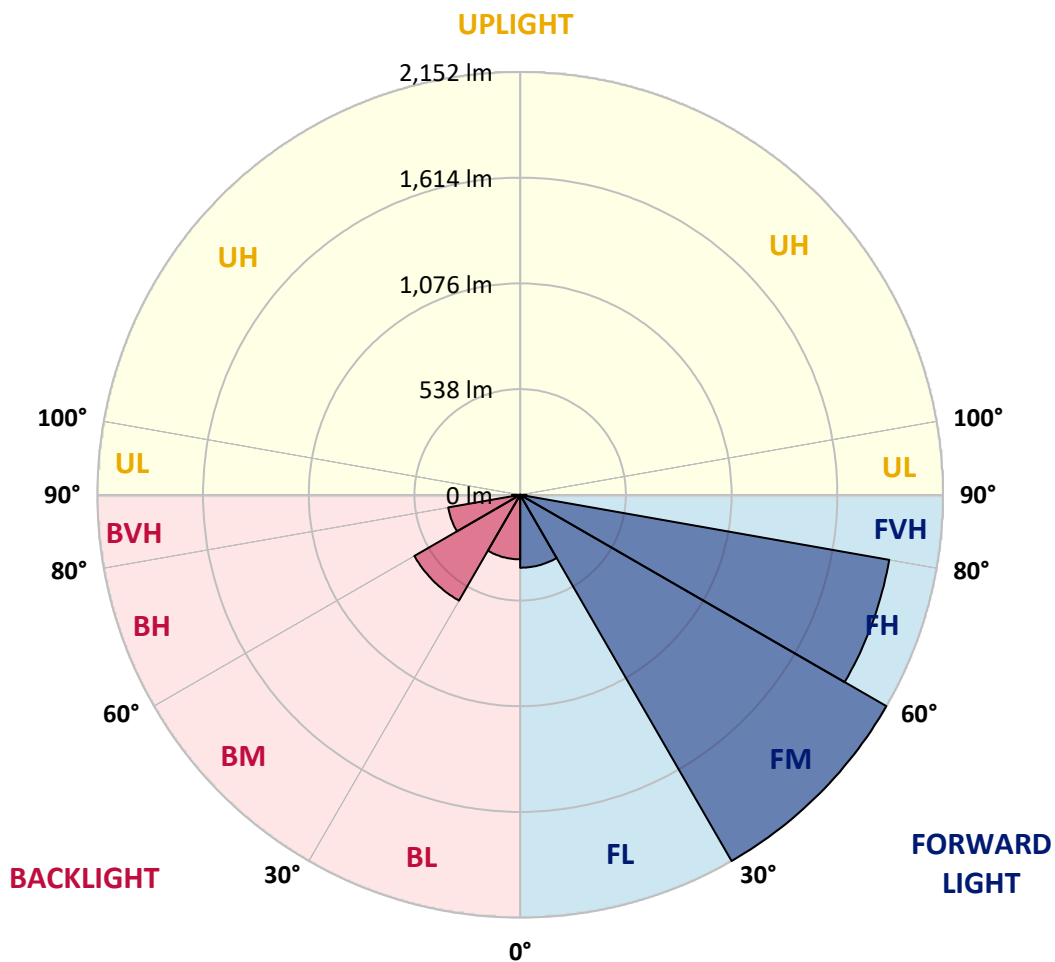
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	371.2	6.4			
FM	(30°-60°)	2152.3	36.9			
FH	(60°-80°)	1907.5	32.7			G2/5000
FVH	(80°-90°)	31.6	0.5			G1/100
BL	(0°-30°)	328.5	5.6	B1/500		
BM	(30°-60°)	622.3	10.7	B1/1000		
BH	(60°-80°)	371.8	6.4	B1/500		G1/500
BVH	(80°-90°)	41.8	0.7			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 III Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	58°	65°	75°	85°
0°	699.7	699.7	699.7	699.7	699.7	699.7	699.7	699.7	699.7	699.7	699.7
2.5°	682.7	682.7	685.1	685.9	687.5	689.2	690.8	691.6	694.0	697.3	698.9
5°	677.0	677.8	679.4	680.2	682.7	685.9	688.4	690.0	694.0	700.6	704.6
7.5°	690.0	692.4	693.2	694.0	694.9	697.3	697.3	698.1	702.2	708.7	714.4
10°	711.1	712.8	715.2	717.6	720.1	721.7	716.8	717.6	719.3	725.8	733.9
12.5°	738.0	738.0	738.8	742.1	744.5	749.4	744.5	744.5	744.5	750.2	760.0
15°	768.1	766.5	766.5	769.7	770.5	773.8	771.3	771.3	774.6	780.3	790.1
17.5°	802.3	804.7	802.3	800.6	798.2	799.8	801.5	803.1	809.6	818.5	824.2
20°	851.9	856.0	854.3	847.8	837.3	832.4	838.1	841.3	854.3	864.9	865.7
22.5°	930.8	928.4	925.9	914.5	893.4	880.4	881.2	886.1	906.4	922.7	914.5
25°	1004.1	1006.5	1006.5	990.2	962.6	935.7	938.1	940.6	960.9	975.6	953.6
27.5°	1092.7	1091.1	1090.3	1068.3	1035.0	1008.9	995.1	1001.6	1016.3	1022.0	979.6
30°	1184.7	1191.2	1184.7	1153.8	1122.0	1088.7	1061.0	1059.4	1066.7	1065.9	1010.6
32.5°	1295.3	1289.6	1287.2	1251.4	1211.5	1167.6	1132.6	1126.9	1122.8	1117.1	1047.2
35°	1380.8	1388.1	1388.1	1357.2	1310.0	1266.9	1212.3	1207.5	1197.7	1179.0	1095.2
37.5°	1481.7	1480.0	1485.7	1449.9	1402.7	1361.2	1310.8	1297.0	1275.0	1247.3	1152.1
40°	1580.1	1584.2	1597.2	1554.1	1511.0	1478.4	1406.8	1381.6	1348.2	1323.0	1235.1
42.5°	1714.4	1720.1	1724.9	1689.1	1637.9	1608.6	1497.9	1466.2	1447.5	1442.6	1345.0
45°	1877.1	1886.9	1890.9	1858.4	1829.1	1759.1	1612.7	1583.4	1563.0	1584.2	1494.7
47.5°	2033.3	2028.4	2047.2	2046.3	2049.6	1965.8	1777.8	1733.9	1714.4	1768.1	1666.4
50°	2121.2	2128.5	2169.2	2210.7	2268.5	2208.3	1969.0	1925.1	1902.3	1969.0	1868.2
52.5°	2166.8	2176.5	2231.0	2347.4	2470.3	2441.8	2199.3	2150.5	2131.0	2196.1	2084.6
55°	2170.8	2176.5	2249.8	2430.4	2624.0	2633.0	2462.1	2415.7	2388.9	2431.2	2320.5
57.5°	2103.3	2086.2	2212.3	2442.6	2722.5	2832.3	2751.0	2717.6	2641.9	2687.5	2613.5
60°	1982.9	2000.0	2123.6	2392.1	2764.0	2987.7	3040.6	2990.2	2902.3	2921.0	2929.2
62.5°	1800.6	1822.6	1951.1	2275.0	2730.6	3119.6	3308.3	3283.1	3165.1	3155.4	3170.0
65°	1541.1	1528.0	1671.2	2018.7	2572.8	3163.5	3571.1	3560.6	3419.8	3305.1	3310.8
67.5°	1111.5	1099.2	1199.3	1558.2	2145.6	2999.9	3711.1	3734.7	3573.6	3371.0	3283.1
68°	1008.9	991.8	1091.9	1440.2	2035.8	2905.6	3703.8	3744.4	3585.0	3366.9	3248.9
70°	581.0	553.3	650.1	939.8	1498.8	2445.8	3554.0	3666.3	3558.1	3288.0	3025.2
72.5°	182.3	182.3	251.4	380.0	735.5	1547.6	3040.6	3231.8	3254.6	2988.6	2514.2
75°	113.9	113.9	131.0	179.8	292.9	656.6	2097.6	2388.9	2585.8	2515.8	1833.2
77.5°	77.3	75.7	87.1	111.5	163.5	210.7	1052.9	1293.7	1581.7	1717.6	1072.4
80°	42.3	43.1	53.7	66.7	92.8	97.6	309.2	436.9	696.5	816.1	406.8
82.5°	24.4	23.6	26.0	29.3	40.7	42.3	88.7	109.0	182.3	169.2	109.0
85°	0.0	0.8	0.8	0.8	1.6	4.1	11.4	17.1	27.7	38.2	26.9
87.5°	0.0	0.0	0.0	0.0	0.8	0.8	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°	699.7	699.7	699.7	699.7	699.7	699.7	699.7	699.7	699.7	699.7	699.7
2.5°	700.6	703.0	707.1	710.3	711.9	710.3	716.0	715.2	716.8	716.8	718.5
5°	707.9	711.1	718.5	722.5	726.6	728.2	734.7	736.4	739.6	741.2	740.4
7.5°	718.5	722.5	731.5	738.8	744.5	748.6	759.1	764.0	768.9	770.5	772.2
10°	738.0	743.7	753.4	762.4	770.5	776.2	785.2	791.7	796.6	798.2	799.8
12.5°	764.0	770.5	782.7	794.9	803.9	807.1	806.3	804.7	804.7	803.9	804.7
15°	794.1	800.6	816.1	827.5	828.3	817.7	803.1	795.8	794.1	794.1	794.9
17.5°	829.1	837.3	847.0	853.5	838.1	812.0	794.9	787.6	786.0	785.2	783.6
20°	869.0	873.9	877.1	869.0	834.8	804.7	785.2	774.6	766.5	765.6	762.4
22.5°	911.3	909.7	905.6	876.3	825.9	787.6	760.8	741.2	730.7	729.8	726.6
25°	942.2	935.7	923.5	877.9	809.6	760.0	721.7	690.8	677.0	670.5	672.1
27.5°	962.6	948.7	927.6	869.8	781.1	717.6	663.9	623.3	602.9	599.7	602.1
30°	987.0	965.0	930.8	849.5	740.4	658.2	588.3	547.6	536.2	530.5	532.1
32.5°	1016.3	987.8	941.4	818.5	689.2	589.1	513.4	484.9	471.9	461.3	464.6
35°	1054.5	1018.7	958.5	774.6	624.1	515.9	459.7	433.7	410.1	398.7	399.5
37.5°	1099.2	1058.6	973.1	723.3	553.3	460.5	413.3	382.4	353.1	331.2	327.1
40°	1170.9	1137.5	985.3	666.4	485.8	415.0	367.8	332.8	305.1	283.2	280.7
42.5°	1290.5	1232.7	986.2	598.0	428.0	375.9	330.3	292.1	261.2	242.5	241.7
45°	1431.2	1341.7	969.1	524.8	377.5	336.9	297.0	253.9	236.0	223.8	222.1
47.5°	1598.0	1467.0	931.6	456.5	334.4	298.6	262.8	236.8	223.8	214.8	214.8
50°	1788.4	1614.3	894.2	397.9	292.9	267.7	243.3	229.5	219.7	211.6	210.7
52.5°	2003.2	1788.4	882.0	338.5	258.7	239.2	236.8	223.8	215.6	209.9	208.3
55°	2259.5	1983.7	893.4	292.1	231.9	227.8	232.7	222.1	216.4	207.5	205.0
57.5°	2555.7	2174.1	881.2	253.0	213.2	217.2	227.8	222.1	217.2	205.9	202.6
60°	2834.8	2344.1	798.2	220.5	195.3	204.2	221.3	214.8	207.5	205.0	203.4
62.5°	2984.5	2399.5	636.3	195.3	181.4	191.2	210.7	202.6	197.7	203.4	204.2
65°	2986.1	2336.8	467.9	176.6	170.1	179.8	200.2	197.7	201.0	214.0	216.4
67.5°	2820.1	2146.4	330.3	159.5	158.7	170.9	205.0	221.3	223.8	236.8	236.8
68°	2763.2	2099.2	306.7	157.0	156.2	170.9	209.1	225.4	227.0	239.2	238.4
70°	2450.7	1774.6	222.1	147.3	152.2	183.1	231.1	236.8	227.0	240.8	240.0
72.5°	1915.3	1312.4	166.0	136.7	144.8	180.6	232.7	227.0	212.4	215.6	211.6
75°	1294.5	836.4	136.7	125.3	128.6	153.0	211.6	214.0	196.9	193.7	188.8
77.5°	677.8	392.2	110.7	111.5	114.7	132.6	188.8	194.5	179.0	169.2	167.6
80°	249.8	155.4	90.3	98.5	100.1	116.4	161.9	170.9	156.2	148.9	147.3
82.5°	91.1	77.3	74.9	86.2	84.6	99.3	141.6	148.1	132.6	125.3	121.2
85°	25.2	28.5	47.2	67.5	65.9	77.3	113.9	119.6	106.6	87.9	85.4
87.5°	1.6	5.7	18.7	39.9	41.5	48.0	82.2	90.3	78.9	65.1	64.3
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)