

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: P401442

Luminaire Tested: **ENT-SA1D-727-U-T2**

Issue Date: 5/20/2020

Test Information

Test Method: LM-79-08
Report Number: P401442
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-SA1D-727-U-T2
Description: ENTRI LED LUMINAIRE
(1) 70 CRI, 2700K, 800mA LIGHTSQUARE WITH 16 LEDS AND TYPE II OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4699 lumens
Efficiency: N/A
Efficacy: 109.0 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

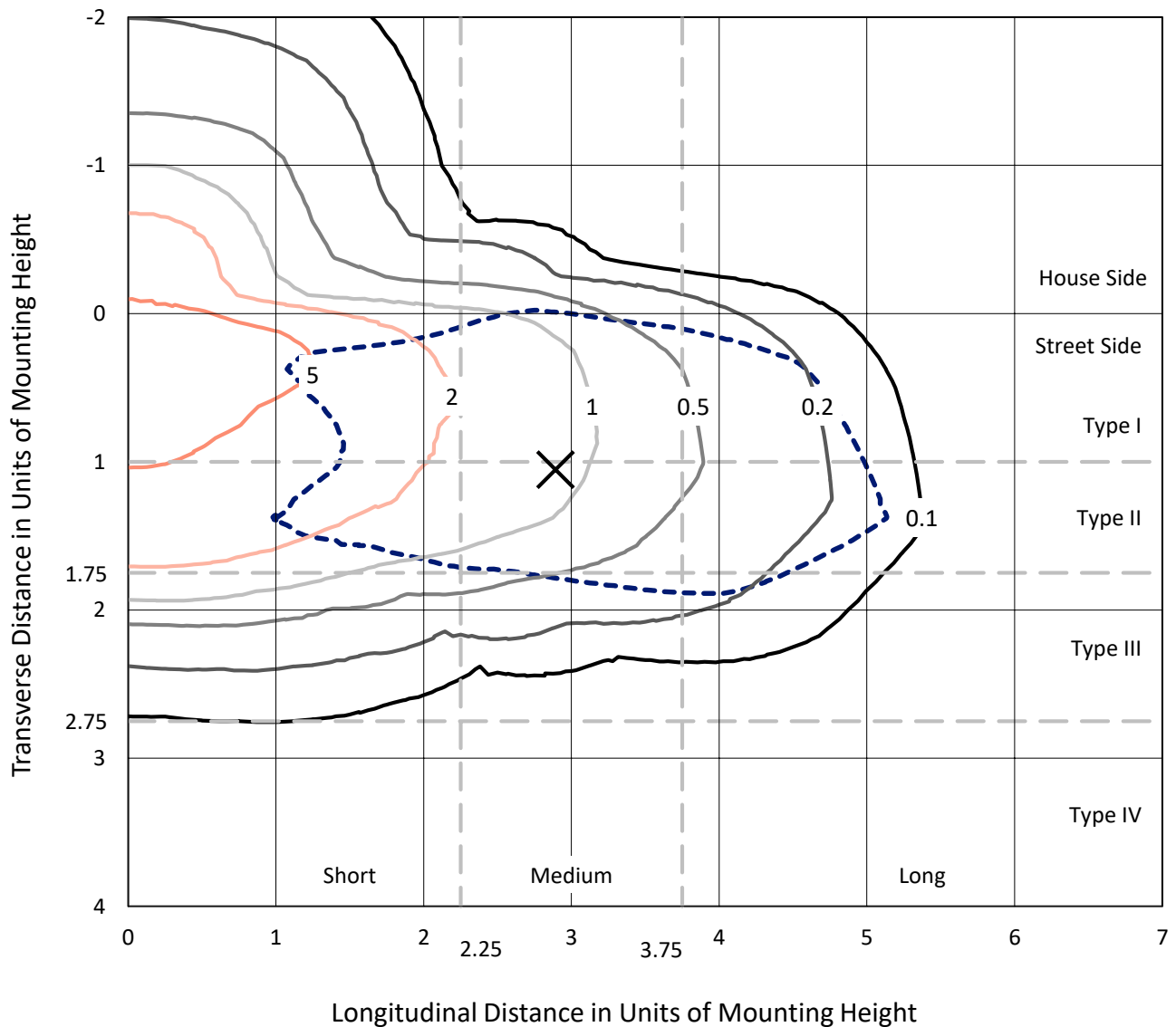
Input Watts (W): 43.1
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

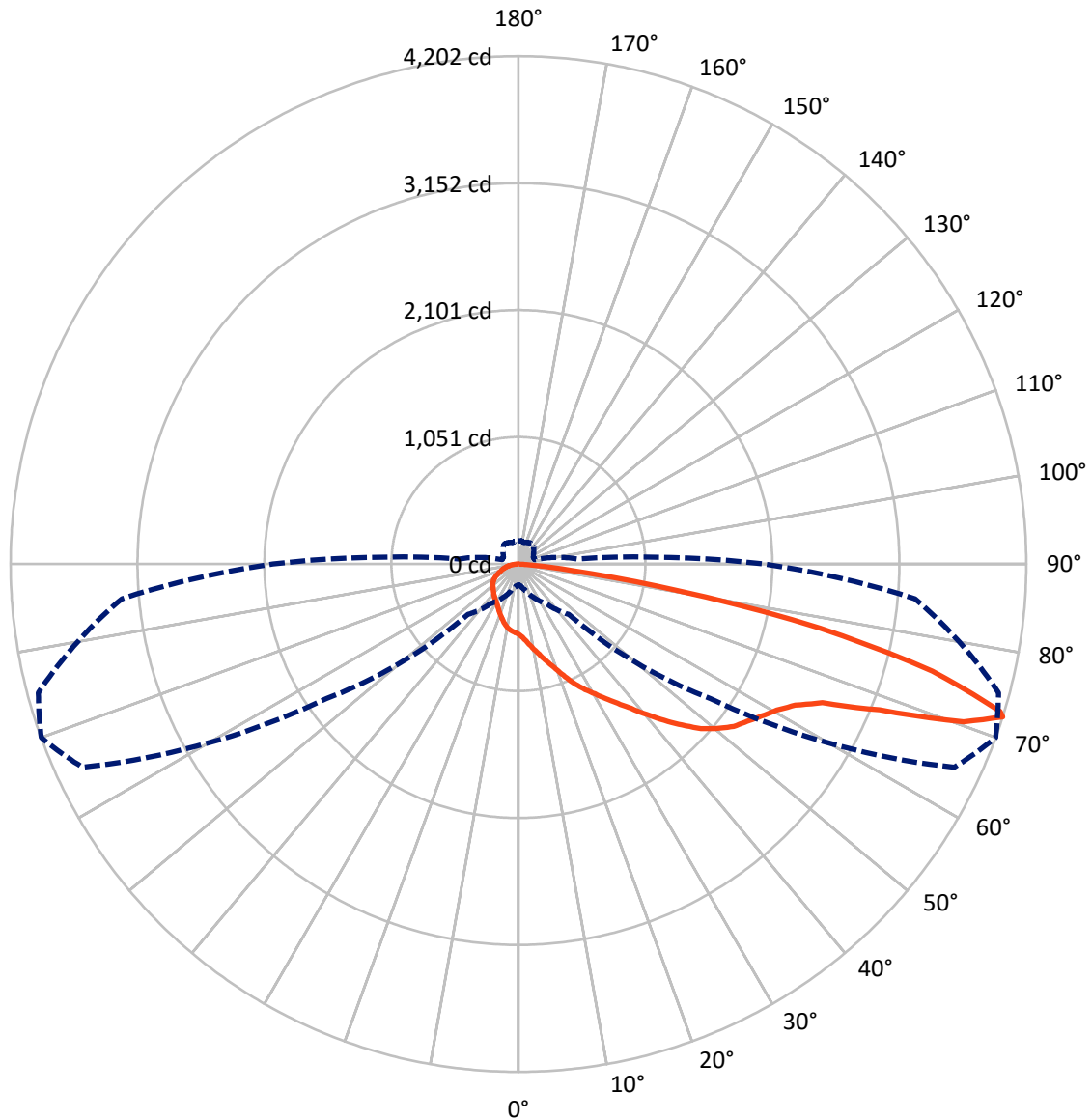
✕ Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 8.1 fc
 Type III - Medium - Non-Cutoff

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Luminous Intensity Polar Plot



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

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	873.1	0.0	873.1
	% Fixture	18.6	0.0	18.6
Street Side	Lumens	3825.9	0.0	3825.9
	% Fixture	81.4	0.0	81.4
Total	Lumens	4699.0	0.0	4699.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	58.5	1.2
10°-20°	187.7	4.0
20°-30°	332.3	7.1
30°-40°	494.1	10.5
40°-50°	716.8	15.3
50°-60°	979.2	20.8
60°-70°	1072.1	22.8
70°-80°	762.6	16.2
80°-90°	95.7	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°	4699.0	100.0
0°-180°	4699.0	100.0



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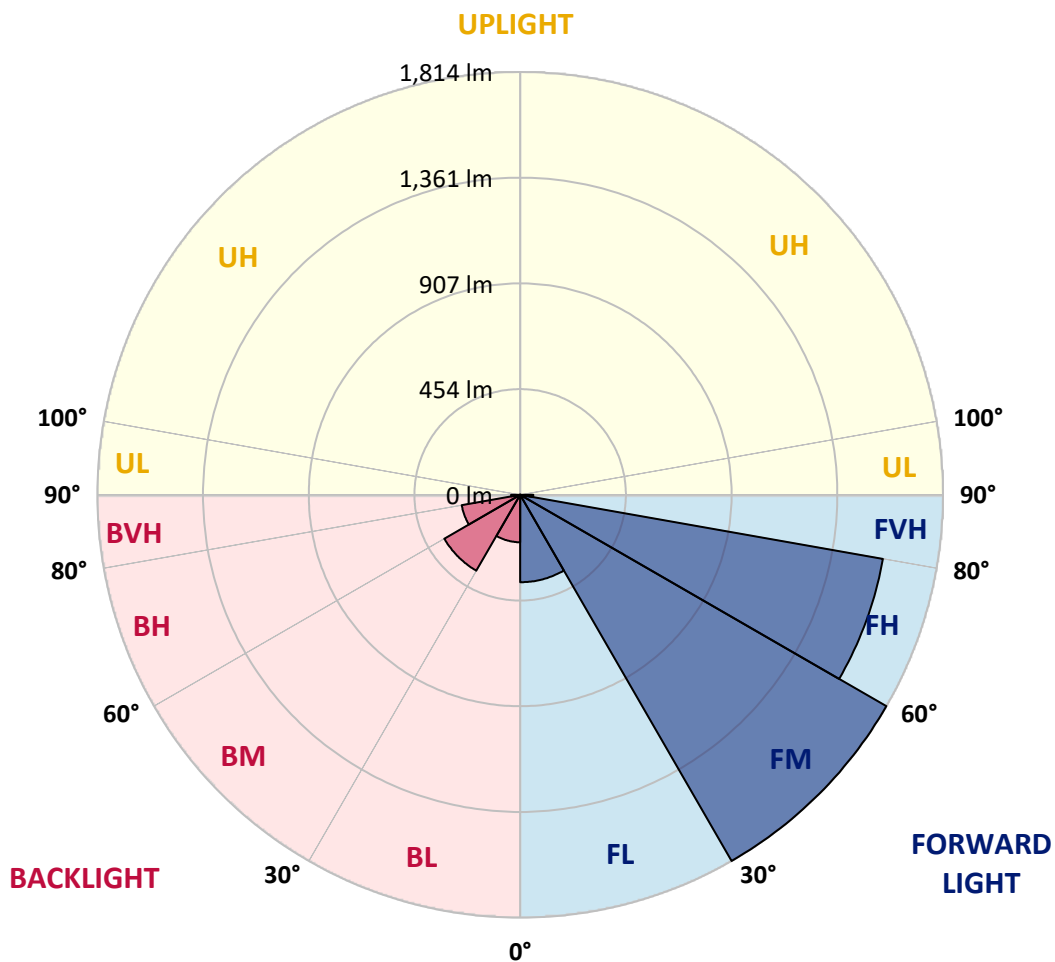
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	375.0	8.0			
FM	(30°-60°)	1814.1	38.6			
FH	(60°-80°)	1580.2	33.6			G1/1800
FVH	(80°-90°)	56.6	1.2			G1/100
BL	(0°-30°)	203.5	4.3	B1/500		
BM	(30°-60°)	375.9	8.0	B1/1000		
BH	(60°-80°)	254.6	5.4	B1/500		G1/500
BVH	(80°-90°)	39.2	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





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	70°	75°	85°
0°	581.9	581.9	581.9	581.9	581.9	581.9	581.9	581.9	581.9	581.9	581.9
2.5°	647.0	643.7	644.4	638.3	635.0	626.9	618.2	608.8	604.1	600.7	589.3
5°	710.1	710.1	712.8	708.1	695.4	681.9	666.5	645.7	637.0	624.9	602.1
7.5°	762.5	763.8	763.8	762.5	751.1	736.3	716.2	690.7	676.6	659.1	623.6
10°	789.3	792.7	795.4	797.4	796.1	787.3	764.5	738.3	718.9	696.0	648.4
12.5°	802.8	804.1	808.8	818.9	826.9	833.6	816.9	786.0	766.5	739.0	675.2
15°	817.5	817.5	822.2	835.0	850.4	868.5	866.5	842.4	821.6	787.3	709.5
17.5°	826.9	829.6	838.3	851.8	873.2	903.4	918.9	905.5	878.6	842.4	746.4
20°	821.6	823.6	841.0	867.2	894.7	933.7	972.6	972.6	947.1	905.5	787.3
22.5°	831.6	835.0	847.1	871.9	909.5	959.8	1023.6	1045.7	1023.6	978.0	835.0
25°	870.6	869.2	879.3	889.4	921.6	984.0	1067.2	1124.3	1104.1	1053.8	881.3
27.5°	926.9	926.9	932.3	931.6	943.0	1004.1	1105.5	1193.4	1176.6	1116.2	919.6
30°	992.0	993.4	992.0	991.4	989.4	1031.6	1139.7	1255.2	1246.4	1186.7	954.5
32.5°	1071.2	1074.6	1069.2	1055.8	1047.8	1071.2	1168.6	1324.3	1327.0	1256.5	988.7
35°	1170.6	1176.0	1155.8	1136.4	1116.2	1127.0	1202.1	1389.4	1416.2	1335.7	1030.3
37.5°	1269.9	1278.7	1275.3	1222.9	1194.8	1194.1	1251.8	1470.6	1515.6	1439.1	1089.4
40°	1353.8	1361.2	1365.2	1317.6	1278.7	1277.3	1325.0	1555.2	1637.7	1557.9	1159.2
42.5°	1409.5	1416.2	1428.3	1400.1	1363.9	1380.7	1405.5	1639.1	1769.3	1702.9	1245.1
45°	1469.9	1475.3	1482.7	1466.6	1447.8	1496.1	1507.5	1732.4	1900.9	1858.6	1345.8
47.5°	1534.4	1539.8	1543.8	1531.7	1525.0	1592.8	1607.5	1827.7	2033.8	2019.7	1443.8
50°	1605.5	1607.5	1611.6	1605.5	1607.5	1680.7	1690.1	1911.6	2139.1	2187.5	1545.8
52.5°	1727.7	1730.4	1731.7	1702.9	1692.8	1736.4	1756.6	2000.9	2231.8	2327.1	1635.7
55°	1824.3	1833.7	1876.0	1857.2	1833.1	1776.0	1811.6	2072.7	2297.5	2457.3	1729.7
57.5°	1745.1	1766.6	1872.0	1960.6	2028.4	1892.1	1876.7	2146.5	2373.4	2569.4	1839.1
60°	1514.9	1546.5	1699.5	1884.1	2103.6	2158.6	2010.3	2238.5	2456.0	2686.2	1956.6
62.5°	1050.4	1082.7	1294.1	1588.8	1976.7	2311.0	2376.1	2401.6	2570.7	2805.7	2109.6
65°	503.4	536.3	710.8	1021.6	1561.2	2213.0	2802.3	2739.9	2764.0	2957.3	2335.1
67.5°	320.2	337.6	406.1	556.4	908.1	1723.7	2955.3	3413.8	3221.8	3307.0	2784.2
70°	234.3	238.3	297.3	385.3	539.0	1006.8	2609.7	4058.8	3908.4	3899.0	3325.8
72°	173.2	179.9	225.5	307.4	398.7	588.6	1941.8	3980.3	4202.4	4113.2	3293.6
72.5°	163.1	168.5	208.1	290.6	376.5	516.8	1739.8	3889.0	4166.2	4119.2	3231.9
75°	118.8	122.8	142.3	206.7	291.3	299.4	929.0	2984.9	3537.9	3932.6	2929.8
77.5°	81.9	84.6	94.6	126.9	199.3	202.7	394.0	2037.8	2553.3	3144.6	2253.2
80°	49.7	51.0	57.1	69.1	126.9	120.1	162.4	1065.2	1332.3	1709.6	1045.1
82.5°	20.8	21.5	24.8	27.5	53.7	57.1	65.8	347.7	441.0	534.3	301.4
85°	0.0	0.0	0.7	0.7	1.3	6.0	9.4	43.0	65.1	77.9	54.4
87.5°	0.0	0.0	0.7	0.7	0.7	1.3	1.3	2.0	2.7	2.7	4.0
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°	581.9	581.9	581.9	581.9	581.9	581.9	581.9	581.9	581.9	581.9	581.9
2.5°	584.0	581.3	573.2	566.5	561.1	552.4	551.7	545.0	545.0	543.0	541.7
5°	593.3	584.6	568.5	553.7	543.0	530.3	524.2	516.8	512.1	509.4	510.1
7.5°	605.4	590.7	563.1	538.3	518.2	502.1	492.7	486.6	483.3	481.9	481.9
10°	622.2	599.4	554.4	516.8	491.3	479.2	474.5	473.9	474.5	475.2	475.9
12.5°	641.0	605.4	538.3	491.3	471.2	466.5	469.2	475.2	480.6	482.6	482.6
15°	660.5	609.5	516.2	467.8	455.8	460.4	469.8	481.3	490.0	495.4	496.7
17.5°	680.6	610.1	492.7	446.4	442.3	454.4	471.2	489.3	503.4	512.1	513.5
20°	702.1	608.8	465.1	426.9	428.9	449.0	472.5	497.4	516.2	527.6	528.9
22.5°	725.6	603.4	438.3	408.1	417.5	443.7	471.2	500.1	520.2	533.6	536.3
25°	748.4	592.7	411.5	391.3	409.4	438.3	464.5	489.3	508.8	521.5	524.9
27.5°	760.5	569.9	385.9	378.6	403.4	430.2	449.0	465.8	476.6	484.6	488.0
30°	762.5	537.6	365.1	369.8	396.7	418.8	429.6	432.3	430.2	432.9	429.6
32.5°	758.5	502.7	348.4	363.1	385.9	402.7	405.4	397.4	385.3	368.5	369.2
35°	755.8	464.5	334.9	353.7	371.8	382.6	377.9	365.1	342.3	322.2	320.8
37.5°	760.5	429.6	323.5	341.6	353.7	358.4	351.7	334.9	314.8	297.3	295.3
40°	773.9	404.1	312.8	328.2	334.3	337.6	329.6	314.8	306.7	294.0	292.0
42.5°	800.1	386.6	302.7	313.5	316.1	319.5	311.4	301.4	308.8	306.1	306.1
45°	836.3	378.6	294.0	299.4	302.0	307.4	302.7	294.0	302.0	286.6	283.9
47.5°	883.3	381.2	287.9	285.3	293.3	302.7	297.3	286.6	283.9	256.4	251.7
50°	933.0	395.3	281.9	273.9	283.9	296.7	290.0	273.2	257.1	243.0	240.3
52.5°	991.4	418.8	276.5	261.1	273.2	290.0	285.3	267.1	250.4	240.3	238.3
55°	1055.8	441.7	269.8	246.3	259.1	287.9	286.6	263.1	241.0	236.3	234.9
57.5°	1128.3	460.4	261.8	229.6	245.0	281.9	280.6	253.7	238.3	234.3	233.6
60°	1218.9	482.6	247.7	210.1	230.9	270.5	269.2	249.0	232.2	228.9	227.5
62.5°	1342.4	523.5	223.5	192.0	216.1	250.4	258.4	239.6	223.5	222.8	222.8
65°	1545.8	602.7	198.7	176.5	199.3	230.9	244.3	228.9	215.5	218.8	218.8
67.5°	1930.4	709.5	173.2	161.8	183.2	212.1	232.2	218.1	206.7	213.4	213.4
70°	2227.1	669.9	153.0	147.7	167.1	195.3	216.8	206.7	196.0	207.4	206.1
72°	2031.7	490.7	139.6	136.3	153.7	181.2	203.4	196.0	184.6	194.0	191.3
72.5°	1950.5	445.7	135.6	132.9	149.7	178.5	200.7	193.3	181.2	190.6	186.6
75°	1701.5	375.9	118.1	116.8	132.9	160.4	183.2	179.2	167.1	172.5	168.5
77.5°	1408.2	316.8	99.3	102.0	113.4	143.0	165.1	161.1	149.7	149.0	148.3
80°	660.5	176.5	81.9	83.9	95.3	122.2	142.3	139.6	128.9	127.5	125.5
82.5°	191.3	84.6	63.1	64.4	76.5	100.0	122.2	120.8	112.8	110.7	106.1
85°	35.6	27.5	34.2	40.3	55.7	83.2	111.4	108.7	96.7	87.9	81.2
87.5°	2.0	5.4	11.4	19.5	35.6	62.4	89.9	87.9	77.2	66.4	67.1
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)