

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: P401758

Luminaire Tested: **ENT-SA1E-830-U-SL3**

Issue Date: 5/20/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P401758  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2004-754-3)  
Test Lab: INNOVATION CENTER  
Issue Date: 5/20/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: INVUE  
Catalog Number: ENT-SA1E-830-U-SL3  
Description: ENTRI LED LUMINAIRE  
(1) 80 CRI, 3000K, 1050mA LIGHTSQUARE WITH 16 LEDS AND TYPE III SPILL  
LIGHT ELIMINATOR OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 5484 lumens  
Efficiency: N/A  
Efficacy: 95.9 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 - G2

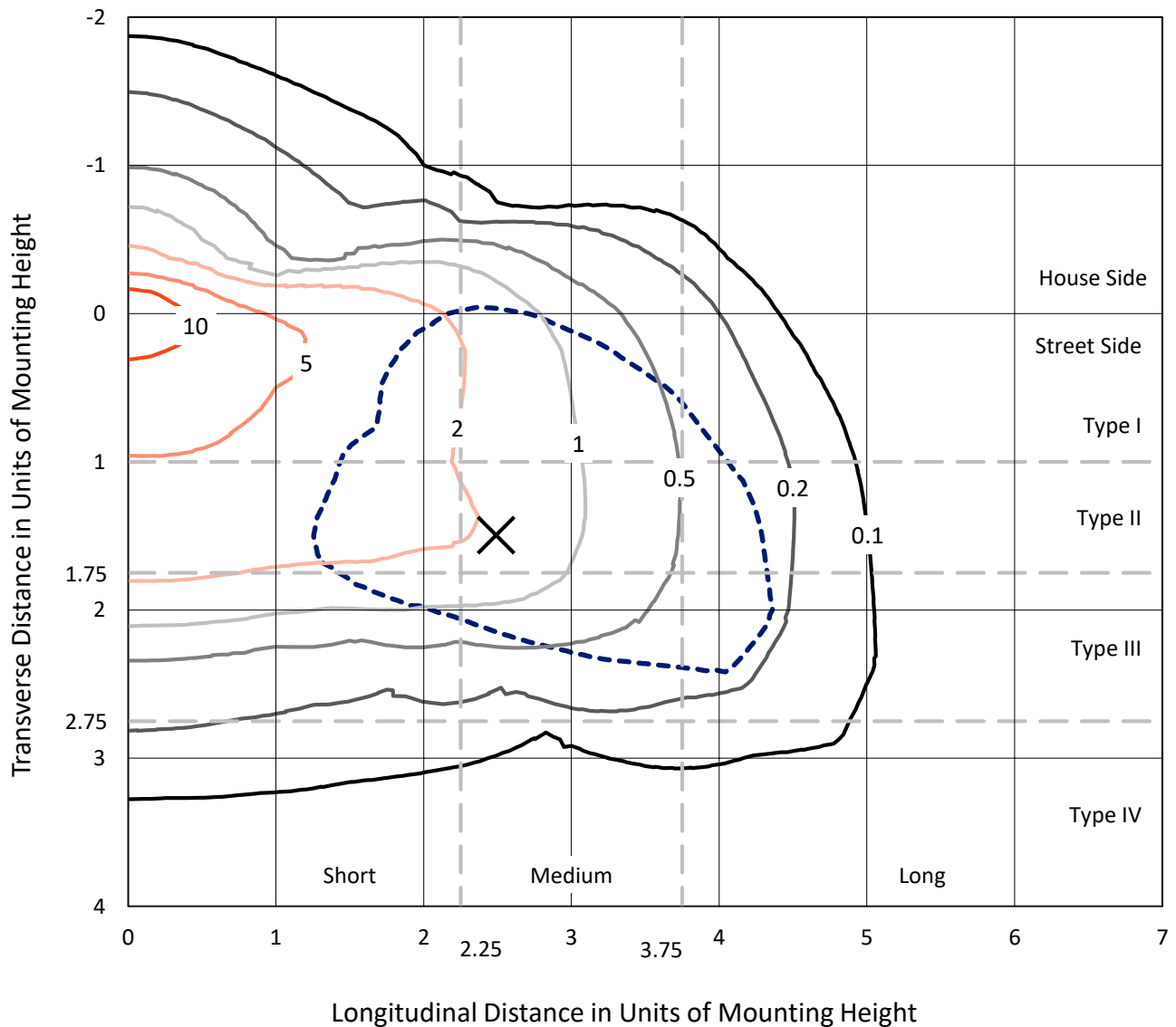
Input Watts (W): 57.2  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Iso-Footcandle Lines of Horizontal Illumination

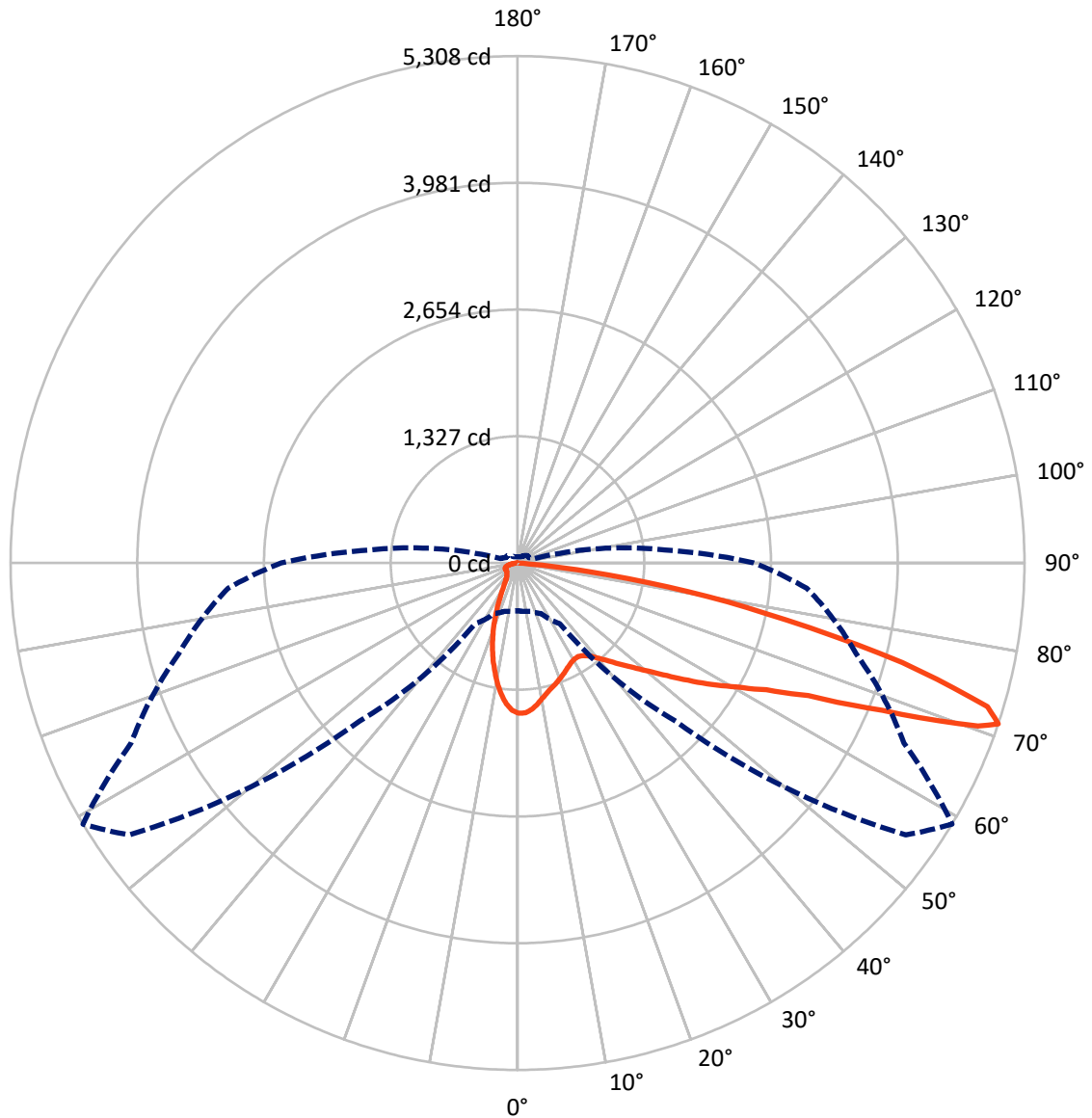
× Max cd  
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 15.7 fc  
 Type III - Medium - Non-Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 59-Deg Lateral    - - - Horizontal Cone Through 71-Deg Vertical

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**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	930.8	0.0	930.8
	% Fixture	17.0	0.0	17.0
<b>Street Side</b>	Lumens	4553.2	0.0	4553.2
	% Fixture	83.0	0.0	83.0
<b>Total</b>	Lumens	5484.0	0.0	5484.0
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	135.9	2.5
10°-20°	305.4	5.6
20°-30°	388.2	7.1
30°-40°	496.2	9.0
40°-50°	688.6	12.6
50°-60°	1019.5	18.6
60°-70°	1378.0	25.1
70°-80°	977.2	17.8
80°-90°	94.9	1.7
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°	5484.0	100.0
0°-180°	5484.0	100.0



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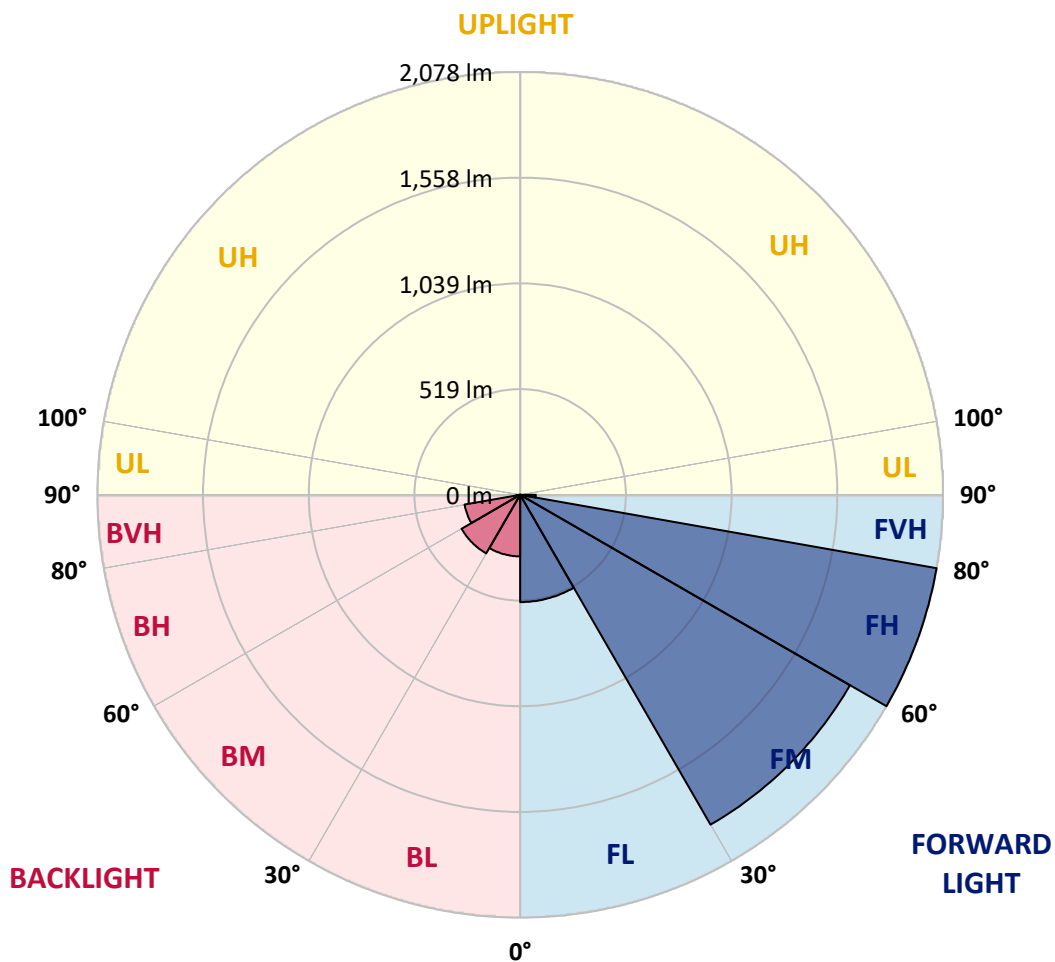
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	527.1	9.6			
FM	(30°-60°)	1871.5	34.1			
FH	(60°-80°)	2077.9	37.9			G2/5000
FVH	(80°-90°)	76.8	1.4			G1/100
BL	(0°-30°)	302.4	5.5	B1/500		
BM	(30°-60°)	332.9	6.1	B1/1000		
BH	(60°-80°)	277.4	5.1	B1/500		G1/500
BVH	(80°-90°)	18.1	0.3			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 Medium





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	59°	65°	75°	85°
0°	1573.3	1573.3	1573.3	1573.3	1573.3	1573.3	1573.3	1573.3	1573.3	1573.3	1573.3
2.5°	1559.8	1565.4	1567.8	1571.8	1571.8	1573.3	1571.8	1571.0	1574.1	1571.0	1562.2
5°	1490.7	1493.1	1500.2	1508.2	1516.1	1532.8	1537.6	1540.8	1547.9	1549.5	1540.8
7.5°	1396.9	1405.7	1415.2	1425.5	1442.2	1465.3	1485.1	1493.1	1506.6	1514.5	1501.8
10°	1317.5	1322.2	1327.0	1345.3	1371.5	1403.3	1424.0	1439.1	1460.5	1470.8	1458.9
12.5°	1238.0	1242.0	1251.5	1276.2	1303.2	1341.3	1378.7	1390.6	1416.0	1436.7	1427.1
15°	1176.8	1176.8	1184.0	1211.0	1239.6	1290.5	1334.2	1352.4	1384.2	1413.6	1401.7
17.5°	1122.8	1125.2	1129.9	1147.4	1187.2	1240.4	1296.0	1319.1	1358.8	1396.9	1381.0
20°	1092.6	1091.0	1094.2	1102.9	1134.7	1191.1	1257.9	1284.9	1334.2	1386.6	1361.2
22.5°	1082.3	1080.7	1078.3	1077.5	1098.2	1145.8	1217.4	1250.7	1311.9	1381.0	1342.9
25°	1090.2	1090.2	1083.1	1069.6	1079.1	1111.7	1180.8	1216.6	1287.3	1377.1	1326.2
27.5°	1111.7	1111.7	1101.3	1083.9	1079.9	1094.2	1149.0	1187.2	1266.6	1379.5	1312.7
30°	1141.1	1140.3	1129.9	1114.9	1102.9	1098.2	1133.9	1168.9	1252.3	1389.8	1306.4
32.5°	1174.4	1172.9	1168.1	1157.8	1143.5	1122.8	1135.5	1166.5	1249.1	1408.1	1307.1
35°	1214.2	1211.8	1214.2	1208.6	1195.1	1172.9	1164.9	1189.5	1265.0	1442.2	1320.7
37.5°	1249.1	1247.6	1259.5	1262.7	1259.5	1230.1	1219.7	1235.6	1302.4	1496.3	1348.5
40°	1278.5	1280.1	1301.6	1324.6	1329.4	1304.0	1296.8	1310.3	1362.8	1562.2	1398.5
42.5°	1311.1	1315.9	1347.7	1389.0	1404.9	1388.2	1392.2	1401.7	1439.1	1652.0	1470.8
45°	1342.9	1353.2	1396.9	1450.2	1490.7	1490.7	1504.2	1513.8	1537.6	1764.9	1576.5
47.5°	1398.5	1405.7	1453.4	1517.7	1579.7	1599.6	1636.9	1633.7	1652.0	1888.8	1700.5
50°	1470.8	1482.8	1531.2	1598.0	1676.6	1733.1	1776.0	1782.3	1789.5	2016.0	1847.5
52.5°	1571.0	1585.3	1625.0	1687.0	1779.9	1872.1	1962.7	1958.7	1949.2	2154.2	2016.0
55°	1671.9	1687.0	1724.3	1774.4	1884.0	2025.5	2173.3	2167.7	2124.0	2295.7	2171.7
57.5°	1774.4	1787.1	1826.0	1869.7	1999.3	2206.7	2395.8	2399.8	2310.0	2453.0	2325.9
60°	1817.3	1836.4	1932.5	2016.7	2178.8	2407.7	2623.0	2633.4	2503.1	2611.9	2495.9
62.5°	1623.4	1646.5	1805.4	2032.6	2425.2	2795.5	2918.6	2925.0	2735.9	2787.5	2681.8
65°	1201.5	1200.7	1365.2	1705.3	2375.9	3315.9	3445.5	3345.3	3025.1	3020.3	2927.4
67.5°	688.1	708.8	761.2	1017.1	1810.1	3412.1	4383.1	4121.7	3537.6	3382.7	3254.8
70°	554.6	549.9	565.8	634.1	986.9	2805.8	4994.2	5113.4	4265.5	3678.3	3180.9
71°	499.8	507.0	522.9	584.8	778.7	2340.9	4964.0	5308.1	4464.2	3670.3	3040.2
72.5°	429.9	431.5	468.0	541.1	639.7	1651.2	4589.7	5147.5	4672.4	3566.3	2833.6
75°	292.4	296.4	353.6	435.5	584.0	784.3	3284.2	4163.8	4252.8	3332.6	2340.2
77.5°	167.7	170.8	212.2	318.6	497.4	553.1	2016.0	2877.3	3057.7	2437.1	1254.7
80°	86.6	90.6	117.6	201.0	379.8	447.4	1156.2	1809.3	1739.4	842.3	290.8
82.5°	23.0	26.2	34.2	72.3	183.6	291.6	512.5	748.5	534.8	174.8	105.7
85°	0.0	0.0	0.0	0.8	1.6	40.5	108.1	134.3	74.7	34.2	28.6
87.5°	0.0	0.0	0.0	0.0	0.8	1.6	1.6	1.6	1.6	2.4	3.2
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°	1573.3	1573.3	1573.3	1573.3	1573.3	1573.3	1573.3	1573.3	1573.3	1573.3	1573.3
2.5°	1560.6	1560.6	1555.9	1548.7	1540.8	1522.5	1525.7	1511.4	1513.0	1511.4	1511.4
5°	1533.6	1528.8	1516.9	1494.7	1470.0	1437.5	1432.7	1406.5	1391.4	1386.6	1392.2
7.5°	1496.3	1482.8	1452.6	1413.6	1366.7	1324.6	1285.7	1250.7	1224.5	1213.4	1208.6
10°	1447.0	1430.3	1381.0	1312.7	1248.3	1182.4	1121.2	1081.5	1029.0	1013.1	1008.4
12.5°	1406.5	1377.9	1304.0	1208.6	1108.5	1021.1	938.4	855.0	804.9	769.2	763.6
15°	1371.5	1331.0	1225.3	1102.1	977.4	856.6	744.6	632.5	561.8	531.6	510.1
17.5°	1340.5	1288.1	1146.6	986.9	832.8	673.0	536.4	429.1	384.6	361.6	362.3
20°	1308.7	1242.0	1064.8	871.7	689.7	512.5	379.0	329.0	306.7	302.0	299.6
22.5°	1278.5	1189.5	978.2	758.1	543.5	376.6	305.1	280.5	274.9	274.9	274.9
25°	1244.4	1136.3	890.8	642.1	411.6	297.2	262.2	253.5	255.1	258.3	259.0
27.5°	1216.6	1090.2	804.2	507.8	319.4	252.7	234.4	232.8	239.2	246.3	246.3
30°	1191.9	1048.1	710.4	396.5	254.3	221.7	215.3	217.7	224.1	230.4	232.8
32.5°	1175.2	1010.0	626.2	308.3	216.9	200.2	198.7	201.8	208.2	211.4	213.8
35°	1168.1	982.1	535.6	248.7	193.1	184.4	183.6	185.9	189.1	189.9	189.1
37.5°	1176.0	963.1	442.6	210.6	178.0	173.2	172.4	172.4	172.4	173.2	172.4
40°	1199.1	955.9	359.2	185.9	168.5	164.5	162.1	159.7	158.1	158.1	157.3
42.5°	1247.6	967.1	288.4	171.6	161.3	156.5	151.8	148.6	146.2	145.4	145.4
45°	1325.4	998.0	240.0	162.1	155.0	147.8	142.2	139.1	136.7	137.5	136.7
47.5°	1432.7	1049.7	212.2	155.7	148.6	139.1	133.5	130.3	129.5	131.9	132.7
50°	1554.3	1122.8	195.5	151.0	143.8	131.9	125.5	123.2	124.0	128.7	129.5
52.5°	1697.3	1217.4	188.3	147.8	139.9	125.5	120.0	117.6	119.2	124.8	125.5
55°	1851.5	1325.4	198.7	149.4	135.9	121.6	115.2	112.0	114.4	119.2	120.0
57.5°	2008.0	1458.9	233.6	150.2	131.1	118.4	110.5	105.7	107.3	111.2	112.0
60°	2166.1	1591.6	294.0	151.0	129.5	115.2	106.5	99.3	100.1	102.5	103.3
62.5°	2352.1	1760.1	373.5	154.2	131.1	112.8	99.3	91.4	91.4	93.0	93.0
65°	2634.2	2011.2	425.9	152.6	135.1	110.5	92.2	84.2	83.4	84.2	84.2
67.5°	2836.8	2044.6	297.2	143.8	137.5	111.2	88.2	77.9	76.3	75.5	75.5
70°	2622.2	1720.4	196.3	135.9	133.5	112.8	85.0	73.9	70.7	68.3	67.5
71°	2473.7	1550.3	182.0	132.7	130.3	111.2	83.4	71.5	68.3	66.7	66.0
72.5°	2253.5	1383.4	167.7	127.9	123.2	108.1	81.1	69.1	65.2	62.8	62.0
75°	1780.7	1060.8	147.0	117.6	106.5	89.0	74.7	64.4	60.4	57.2	56.4
77.5°	804.9	421.9	112.8	101.7	86.6	70.7	65.2	59.6	54.8	52.4	51.7
80°	224.9	160.5	82.6	80.3	65.2	54.8	52.4	50.9	49.3	46.1	46.1
82.5°	104.1	93.8	58.8	56.4	44.5	38.9	41.3	42.1	42.1	38.9	38.1
85°	28.6	31.0	27.0	30.2	28.6	26.2	30.2	32.6	34.2	31.0	28.6
87.5°	2.4	5.6	7.2	11.9	14.3	15.1	19.1	23.0	23.8	19.1	19.9
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)