

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: P401918

Luminaire Tested: **ENT-SA1F-827-U-SL2**

Issue Date: 5/20/2020

Test Information

Test Method: LM-79-08
Report Number: P401918
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2004-754-1)
Test Lab: INNOVATION CENTER
Issue Date: 5/20/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: ENT-SA1F-827-U-SL2
Description: ENTRI LED LUMINAIRE
(1) 80 CRI, 2700K, 1200mA LIGHTSQUARE WITH 16 LEDS AND TYPE II SPILL
LIGHT ELIMINATOR OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5653 lumens
Efficiency: N/A
Efficacy: 85.5 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

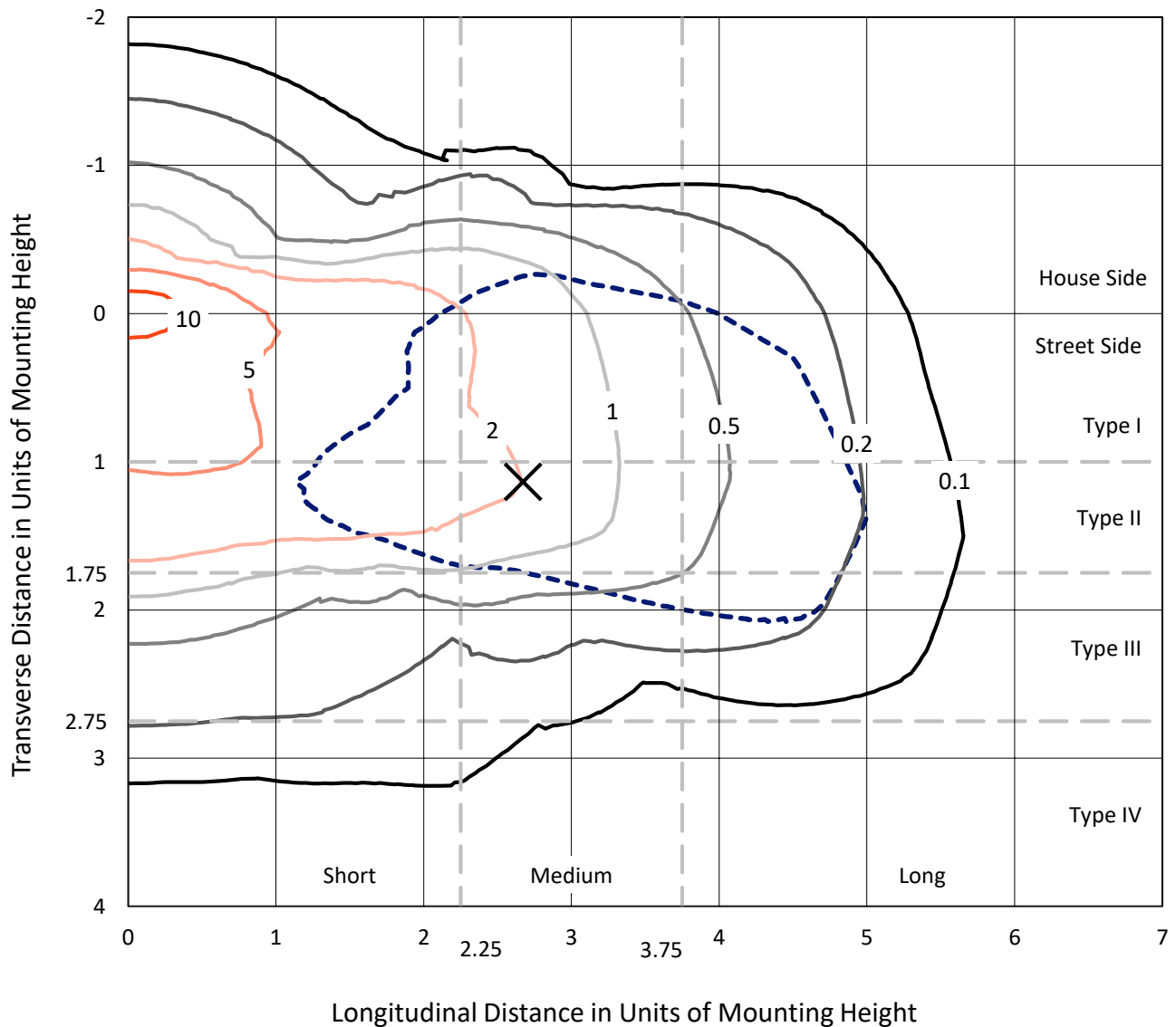
Input Watts (W): 66.1
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

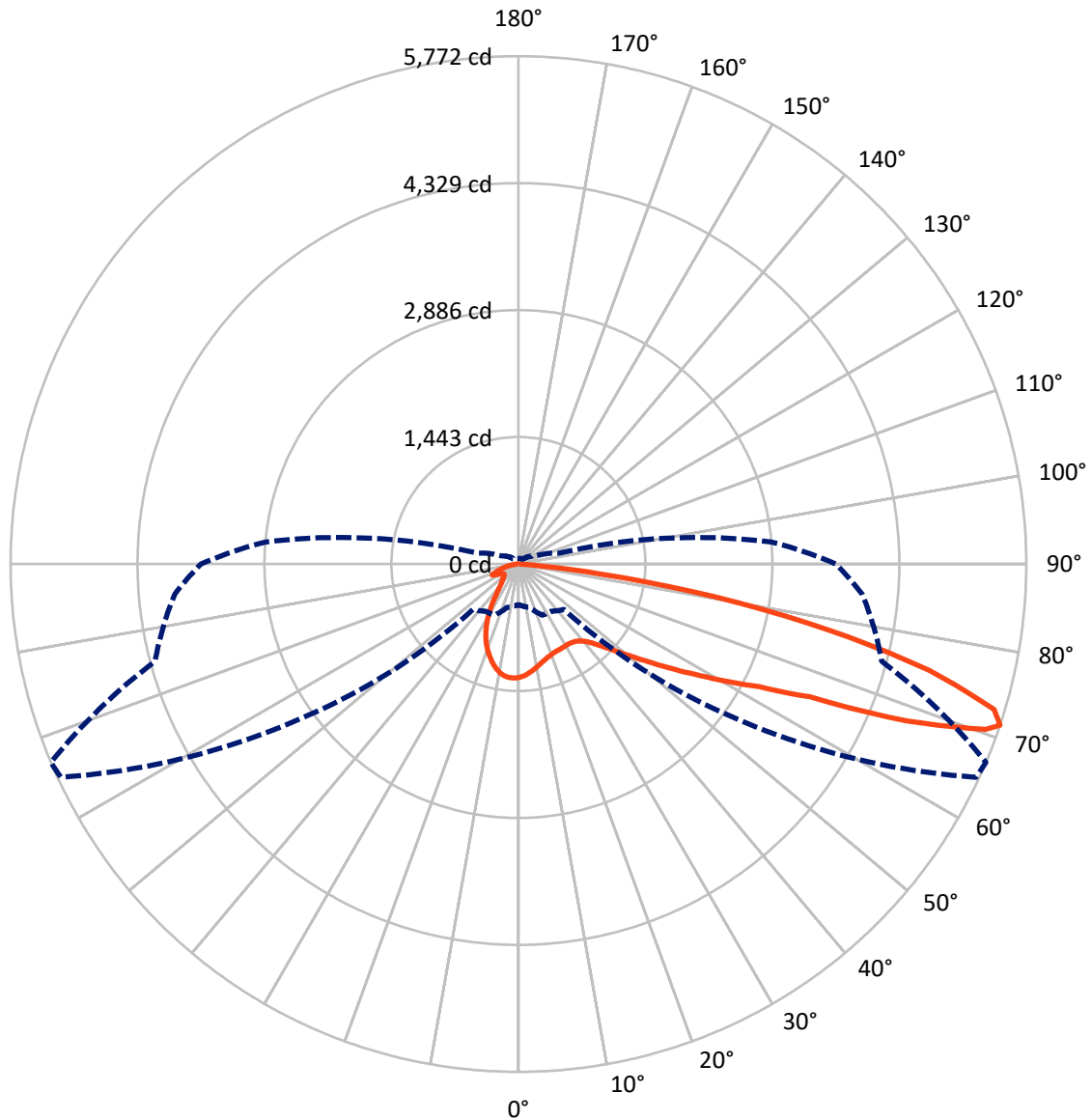
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 12.9 fc
 Type III - Medium - Non-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 67-Deg Lateral - - - Horizontal Cone Through 71-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1158.1	0.0	1158.1
	% Fixture	20.5	0.0	20.5
Street Side	Lumens	4494.9	0.0	4494.9
	% Fixture	79.5	0.0	79.5
Total	Lumens	5653.0	0.0	5653.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	114.2	2.0
10°-20°	280.7	5.0
20°-30°	379.0	6.7
30°-40°	499.2	8.8
40°-50°	711.0	12.6
50°-60°	1086.1	19.2
60°-70°	1356.2	24.0
70°-80°	1094.7	19.4
80°-90°	131.9	2.3
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°	5653.0	100.0
0°-180°	5653.0	100.0



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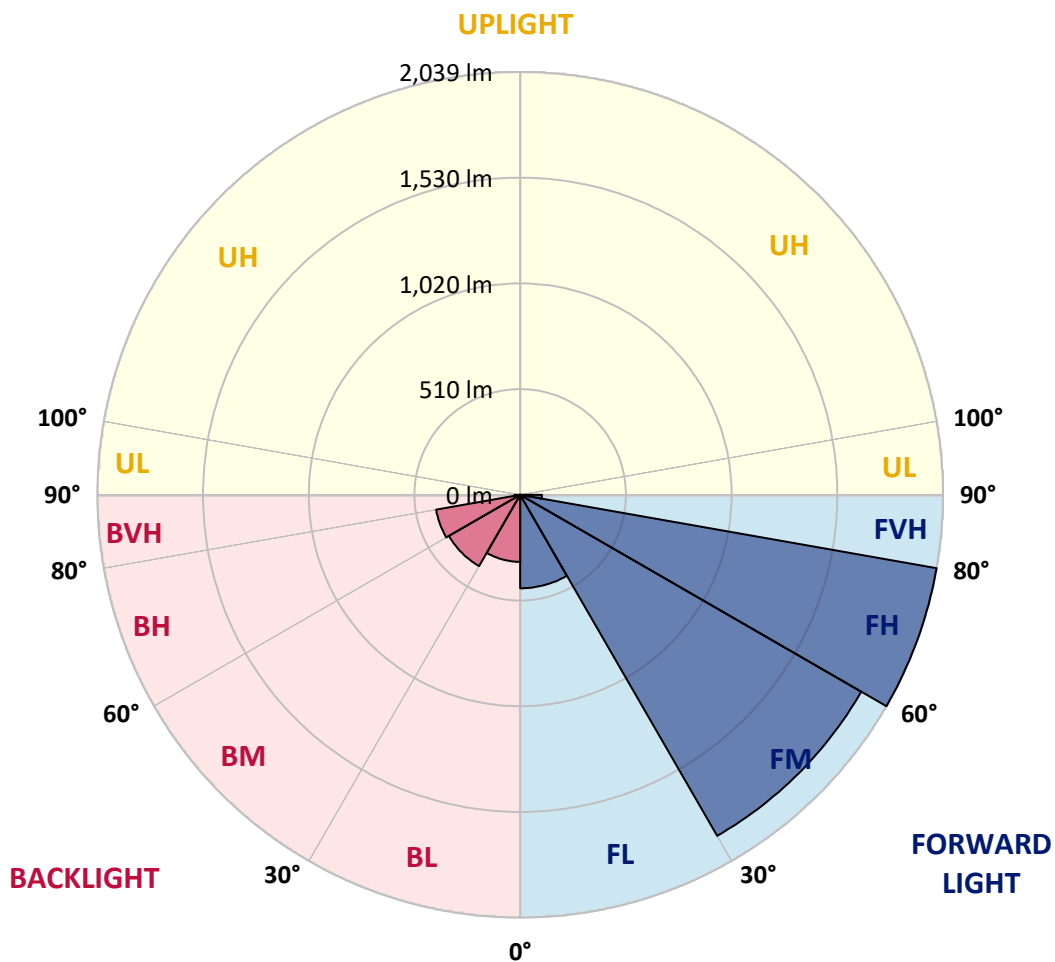
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	450.8	8.0			
FM	(30°-60°)	1899.5	33.6			
FH	(60°-80°)	2039.3	36.1			G2/5000
FVH	(80°-90°)	105.2	1.9			G2/225
BL	(0°-30°)	323.1	5.7	B1/500		
BM	(30°-60°)	396.8	7.0	B1/1000		
BH	(60°-80°)	411.5	7.3	B1/500		G1/500
BVH	(80°-90°)	26.7	0.5			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°	65°	67°	75°	85°
0°	1289.0	1289.0	1289.0	1289.0	1289.0	1289.0	1289.0	1289.0	1289.0	1289.0	1289.0
2.5°	1215.8	1221.5	1222.3	1233.7	1237.8	1250.8	1258.1	1270.3	1271.9	1279.3	1284.2
5°	1136.9	1137.7	1142.6	1152.3	1167.8	1191.4	1209.3	1239.4	1245.1	1266.2	1285.0
7.5°	1066.1	1070.1	1078.3	1092.9	1110.8	1138.5	1166.2	1207.7	1215.8	1250.0	1285.8
10°	1018.0	1022.1	1028.6	1044.9	1062.8	1093.7	1127.1	1175.1	1184.1	1231.3	1283.3
12.5°	979.8	983.9	988.7	1006.7	1026.2	1057.1	1091.3	1145.0	1153.9	1208.5	1277.6
15°	954.6	955.4	961.9	976.5	998.5	1028.6	1062.8	1118.1	1128.7	1190.6	1276.0
17.5°	939.1	940.7	946.4	957.8	977.4	1006.7	1040.0	1096.2	1108.4	1175.9	1276.8
20°	939.9	941.5	944.8	948.9	962.7	987.9	1022.9	1079.9	1092.1	1167.0	1282.5
22.5°	957.0	957.8	958.6	952.9	957.8	975.7	1009.9	1068.5	1081.5	1162.9	1289.0
25°	989.6	989.6	987.9	974.9	964.3	971.7	1002.6	1064.4	1077.5	1159.6	1295.5
27.5°	1034.3	1037.6	1029.4	1014.0	989.6	977.4	1001.0	1061.2	1074.2	1159.6	1298.8
30°	1095.4	1097.0	1093.7	1073.4	1033.5	1000.1	1005.8	1058.7	1071.8	1158.0	1299.6
32.5°	1157.2	1162.1	1166.2	1148.2	1100.2	1040.8	1025.4	1062.0	1073.4	1157.2	1297.2
35°	1219.9	1223.1	1242.6	1239.4	1187.3	1101.9	1057.1	1075.0	1084.8	1161.3	1298.8
37.5°	1273.6	1280.9	1309.4	1331.4	1290.7	1184.9	1111.6	1103.5	1109.2	1181.6	1307.8
40°	1331.4	1341.9	1384.2	1425.7	1407.8	1289.0	1188.9	1154.8	1153.1	1219.0	1329.7
42.5°	1396.5	1408.7	1463.2	1523.4	1529.1	1421.7	1292.3	1227.2	1225.6	1283.3	1377.7
45°	1472.9	1484.3	1558.4	1630.0	1665.0	1569.8	1419.2	1329.7	1330.5	1372.9	1454.2
47.5°	1567.3	1585.3	1656.9	1748.0	1810.7	1736.6	1573.0	1472.9	1466.4	1507.9	1579.6
50°	1700.0	1714.6	1774.0	1862.8	1972.6	1938.4	1766.7	1645.5	1640.6	1660.1	1747.2
52.5°	1839.2	1844.0	1872.5	1964.5	2149.2	2183.4	2005.2	1859.5	1840.8	1851.4	1955.5
55°	1847.3	1857.9	1876.6	1993.0	2307.9	2477.2	2268.0	2111.8	2087.4	2080.0	2192.3
57.5°	1678.0	1695.1	1719.5	1870.1	2314.4	2816.5	2641.5	2406.4	2362.4	2325.8	2445.4
60°	1319.1	1341.1	1385.9	1570.6	2149.2	3010.2	3264.9	2736.8	2697.7	2573.2	2692.8
62.5°	953.8	962.7	1005.8	1088.8	1705.7	3021.6	3914.3	3168.1	3071.2	2814.1	2906.0
65°	768.2	782.9	795.9	795.1	1009.9	2679.8	4345.6	3935.5	3643.3	3083.4	3140.4
67.5°	633.1	638.0	669.7	725.1	686.8	1655.2	4388.7	5056.9	4760.6	3446.4	3418.7
70°	529.0	530.6	562.3	661.6	657.5	854.5	3679.9	5702.2	5630.6	4042.1	3854.1
71°	463.0	476.9	511.9	640.4	654.3	730.0	3126.6	5736.4	5772.2	4275.6	3921.6
72.5°	364.6	364.6	414.2	587.6	660.0	673.8	2303.8	5550.0	5653.4	4540.9	3804.4
75°	214.0	212.4	239.3	409.3	674.6	671.4	1258.1	4612.5	4821.7	4588.9	3521.2
77.5°	120.4	122.9	137.5	227.9	535.5	644.5	722.6	3358.5	3605.1	3838.6	2977.6
80°	55.3	58.6	69.2	110.7	315.7	556.6	515.9	2180.9	2274.5	2307.1	1407.0
82.5°	14.6	16.3	21.2	42.3	122.1	379.2	381.7	913.1	943.2	545.2	301.9
85°	0.0	0.0	0.0	0.0	1.6	46.4	108.2	164.4	136.7	72.4	61.8
87.5°	0.0	0.0	0.0	0.0	0.0	1.6	2.4	3.3	3.3	3.3	4.1
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°	1289.0	1289.0	1289.0	1289.0	1289.0	1289.0	1289.0	1289.0	1289.0	1289.0	1289.0
2.5°	1288.2	1291.5	1297.2	1296.4	1294.7	1285.0	1290.7	1285.0	1284.2	1281.7	1282.5
5°	1291.5	1296.4	1299.6	1292.3	1280.1	1258.9	1251.6	1232.9	1220.7	1214.2	1210.9
7.5°	1296.4	1299.6	1298.0	1277.6	1245.9	1206.0	1171.8	1145.0	1116.5	1111.6	1110.0
10°	1296.4	1299.6	1286.6	1247.5	1193.0	1130.3	1078.3	1034.3	990.4	974.1	976.5
12.5°	1293.1	1294.7	1264.6	1202.0	1123.0	1037.6	964.3	891.9	835.8	801.6	795.1
15°	1290.7	1288.2	1235.3	1145.0	1040.0	934.2	823.5	725.9	659.2	614.4	608.7
17.5°	1290.7	1281.7	1200.3	1079.9	949.7	804.0	657.5	551.7	477.7	451.7	450.8
20°	1292.3	1272.8	1162.9	1012.3	837.4	649.4	490.7	400.4	372.7	368.6	369.5
22.5°	1293.9	1260.6	1122.2	935.9	712.1	484.2	350.7	318.2	320.6	330.4	329.6
25°	1292.3	1244.3	1074.2	850.4	575.3	349.1	283.2	275.1	289.7	301.1	304.4
27.5°	1288.2	1223.1	1022.9	748.7	438.6	275.1	247.4	246.6	261.2	271.8	271.0
30°	1276.0	1197.9	963.5	641.3	316.6	234.4	223.0	225.4	235.2	244.9	244.9
32.5°	1263.0	1169.4	900.9	524.1	243.3	212.4	208.3	209.1	215.7	223.0	222.2
35°	1249.2	1141.7	836.6	402.0	213.2	199.4	197.7	196.9	199.4	201.0	201.0
37.5°	1241.0	1117.3	765.8	302.7	196.9	191.2	188.0	184.7	183.9	182.3	180.7
40°	1244.3	1101.0	697.4	234.4	187.2	182.3	177.4	172.5	169.3	167.6	166.8
42.5°	1267.1	1096.2	621.7	201.8	178.2	174.1	167.6	159.5	156.2	156.2	155.4
45°	1320.0	1110.8	550.9	185.5	170.1	165.2	154.6	148.9	146.5	147.3	147.3
47.5°	1403.0	1152.3	487.5	177.4	164.4	157.1	144.9	139.2	137.5	138.3	138.3
50°	1527.5	1230.4	422.4	170.1	157.9	148.1	137.5	131.0	128.6	128.6	128.6
52.5°	1709.8	1359.0	375.2	165.2	152.2	140.8	130.2	122.9	119.6	119.6	118.8
55°	1931.9	1526.7	357.3	161.9	144.9	134.3	122.9	115.6	110.7	109.0	109.9
57.5°	2175.2	1743.9	383.3	161.1	136.7	127.0	115.6	106.6	101.7	100.9	100.1
60°	2425.9	1959.6	458.2	157.1	130.2	118.0	107.4	99.3	94.4	92.8	92.0
62.5°	2642.4	2174.4	581.9	153.8	125.3	109.9	98.5	91.1	87.1	84.6	84.6
65°	2903.6	2421.0	770.7	157.9	122.9	101.7	90.3	83.8	80.6	78.1	78.1
67.5°	3260.0	2786.4	913.9	177.4	128.6	95.2	81.4	76.5	74.1	72.4	72.4
70°	3610.8	2991.5	635.6	208.3	143.2	89.5	73.2	70.0	68.4	66.7	66.7
71°	3605.9	2881.6	477.7	215.7	148.1	87.9	70.0	67.5	65.9	65.1	64.3
72.5°	3425.2	2619.6	342.6	209.1	145.7	83.0	65.9	63.5	61.8	61.8	61.0
75°	3072.0	2308.7	267.7	175.0	122.1	74.1	58.6	57.0	55.3	54.5	55.3
77.5°	2517.0	1847.3	210.8	138.3	92.8	61.0	52.1	49.6	48.8	48.0	48.8
80°	1156.4	804.8	153.8	107.4	69.2	48.8	43.9	43.1	42.3	41.5	41.5
82.5°	278.3	225.4	82.2	71.6	47.2	37.4	35.0	35.0	35.0	34.2	34.2
85°	61.0	61.0	33.4	33.4	28.5	26.0	27.7	27.7	27.7	26.0	26.0
87.5°	3.3	9.8	10.6	15.5	16.3	15.5	18.7	19.5	18.7	17.9	17.1
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)