

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: P401469

Luminaire Tested: **ENT-SA1D-735-U-SL3-HSS**

Issue Date: 5/20/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P401469  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2004-754-4)  
Test Lab: INNOVATION CENTER  
Issue Date: 5/20/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: INVUE  
Catalog Number: ENT-SA1D-735-U-SL3-HSS  
Description: ENTRI LED LUMINAIRE  
(1) 70 CRI, 3500K, 800mA LIGHTSQUARE WITH 16 LEDS AND TYPE III SPILL  
LIGHT ELIMINATOR OPTICS WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4444 lumens  
Efficiency: N/A  
Efficacy: 103.1 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 - G1

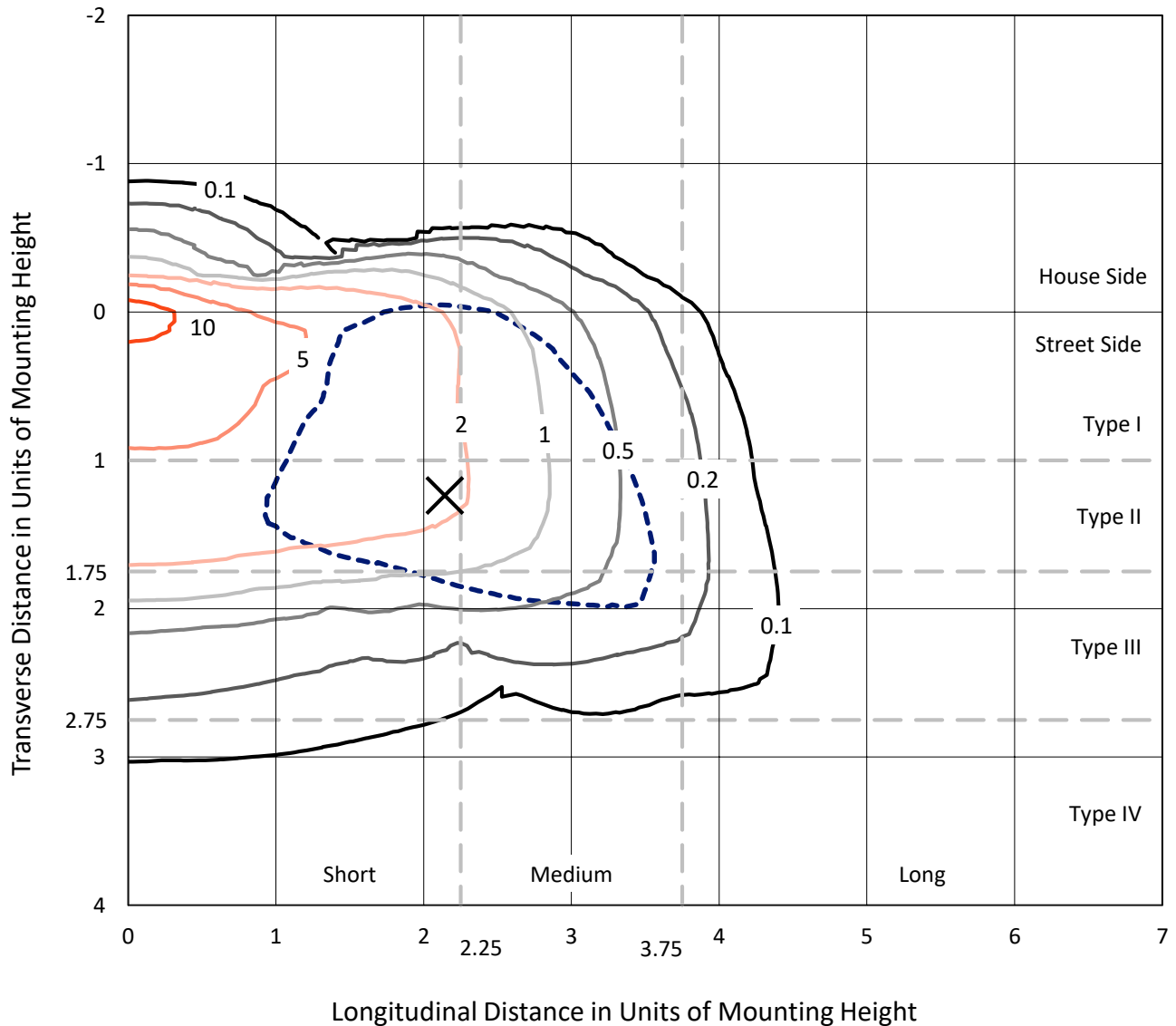
Input Watts (W): 43.1  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd  
 - - - 1/2 Max cd

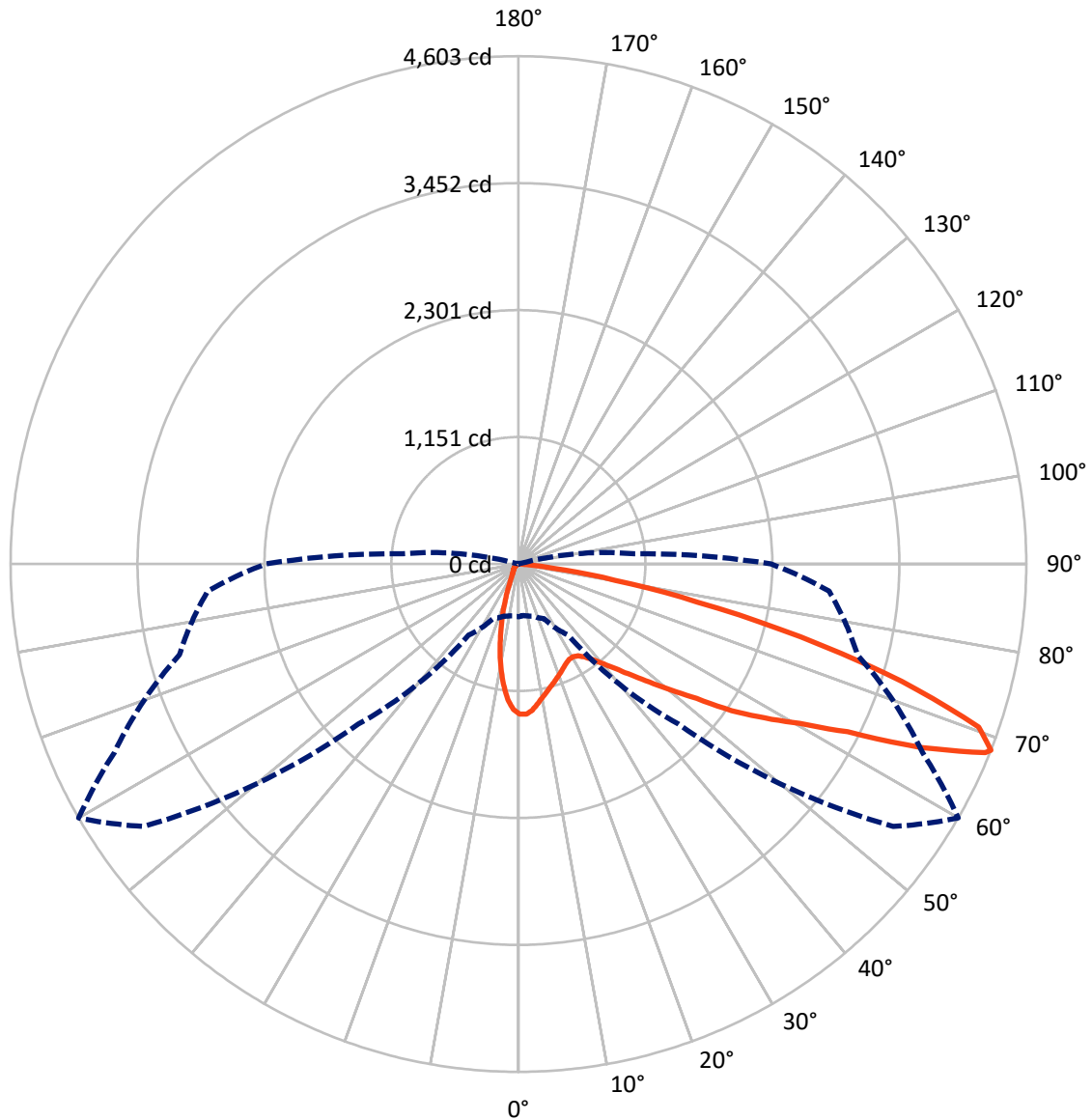


Based on 10 foot mounting height. Maximum calculated value = 13.6 fc  
 Type III - Short - Semi-Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 60-Deg Lateral      - - - Horizontal Cone Through 68-Deg Vertical

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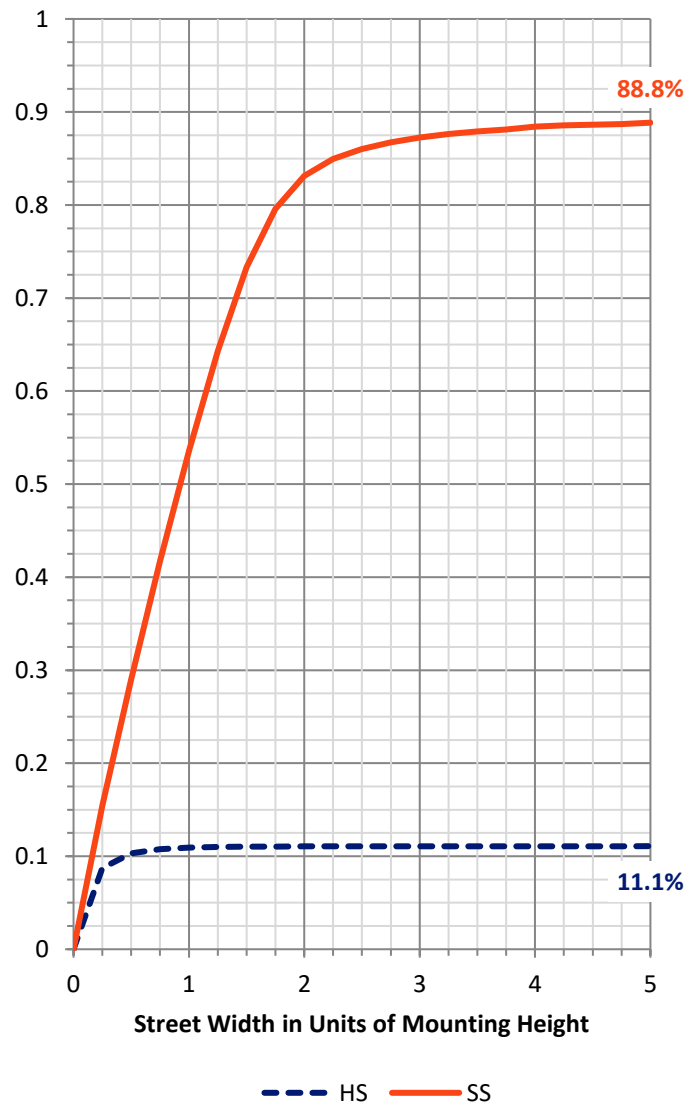
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	496.9	0.0	496.9
	% Fixture	11.2	0.0	11.2
<b>Street Side</b>	Lumens	3947.1	0.0	3947.1
	% Fixture	88.8	0.0	88.8
<b>Total</b>	Lumens	4444.0	0.0	4444.0
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	110.4	2.5
10°-20°	225.1	5.1
20°-30°	296.4	6.7
30°-40°	409.1	9.2
40°-50°	620.1	14.0
50°-60°	1000.6	22.5
60°-70°	1188.6	26.7
70°-80°	560.3	12.6
80°-90°	33.5	0.8
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°	4444.0	100.0
0°-180°	4444.0	100.0



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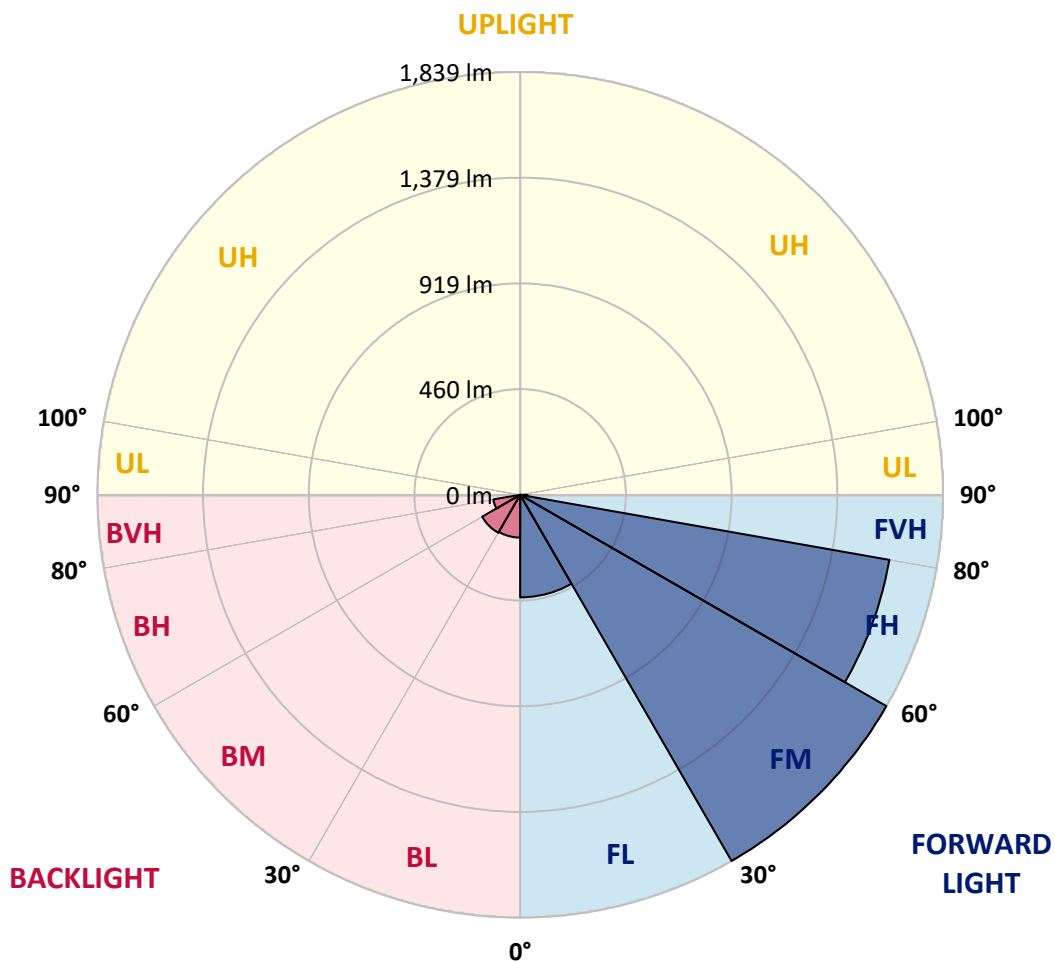
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	446.0	10.0			
FM	(30°-60°)	1838.7	41.4			
FH	(60°-80°)	1630.4	36.7			G1/1800
FVH	(80°-90°)	32.0	0.7			G1/100
BL	(0°-30°)	185.9	4.2	B1/500		
BM	(30°-60°)	191.0	4.3	B0/220		
BH	(60°-80°)	118.5	2.7	B1/500		G1/500
BVH	(80°-90°)	1.4	0.0			G0/10
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 Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	60°	65°	75°	85°
0°	1360.3	1360.3	1360.3	1360.3	1360.3	1360.3	1360.3	1360.3	1360.3	1360.3	1360.3
2.5°	1348.2	1345.2	1353.5	1355.7	1358.0	1362.5	1361.8	1362.5	1363.3	1361.8	1352.7
5°	1256.2	1261.5	1269.0	1278.8	1288.6	1311.2	1320.3	1329.3	1335.4	1339.9	1331.6
7.5°	1165.7	1176.3	1182.3	1200.4	1215.5	1238.9	1258.5	1274.3	1289.4	1306.0	1297.7
10°	1093.3	1097.1	1102.4	1119.0	1141.6	1177.0	1202.7	1222.3	1240.4	1268.3	1261.5
12.5°	1022.5	1024.7	1035.3	1053.4	1076.7	1120.5	1154.4	1177.0	1197.4	1232.1	1232.8
15°	970.4	971.2	978.0	994.6	1021.7	1068.5	1112.2	1137.1	1165.7	1207.9	1210.2
17.5°	936.5	935.7	937.3	947.8	973.4	1017.9	1070.7	1100.1	1134.1	1188.3	1190.6
20°	925.9	924.4	921.4	919.2	935.0	973.4	1033.0	1065.4	1105.4	1174.0	1174.8
22.5°	935.0	932.0	925.2	912.4	916.9	941.8	991.5	1030.8	1079.8	1166.5	1161.2
25°	956.9	956.9	947.8	927.4	916.9	922.2	962.1	999.8	1054.1	1162.7	1151.4
27.5°	993.0	991.5	979.5	958.4	938.8	924.4	944.0	979.5	1035.3	1167.2	1146.9
30°	1036.8	1032.3	1019.4	1004.4	980.2	949.3	947.8	974.2	1026.2	1181.6	1149.9
32.5°	1078.3	1078.3	1073.0	1058.6	1035.3	994.6	971.2	992.3	1037.5	1204.9	1159.7
35°	1129.5	1128.8	1130.3	1125.0	1104.6	1061.7	1024.0	1034.5	1072.2	1244.1	1183.1
37.5°	1170.2	1171.0	1183.8	1192.9	1183.8	1138.6	1099.4	1099.4	1131.0	1303.0	1223.0
40°	1210.2	1211.7	1235.8	1262.2	1264.5	1228.3	1190.6	1189.8	1207.9	1375.3	1284.9
42.5°	1246.4	1252.4	1287.1	1332.4	1358.8	1334.6	1306.7	1297.7	1306.7	1484.7	1385.1
45°	1284.9	1296.9	1345.2	1410.8	1453.8	1454.5	1444.0	1433.4	1437.9	1607.6	1519.4
47.5°	1334.6	1348.2	1408.5	1489.2	1570.6	1591.7	1601.5	1597.8	1585.7	1762.9	1692.8
50°	1415.3	1428.1	1484.7	1575.2	1686.8	1762.9	1789.3	1793.8	1778.0	1934.8	1889.6
52.5°	1552.5	1560.1	1612.9	1684.5	1809.7	1952.2	2021.5	2022.3	1986.9	2136.1	2102.2
55°	1699.6	1719.2	1781.0	1863.9	1992.9	2152.7	2326.2	2345.0	2235.7	2312.6	2257.5
57.5°	1701.8	1720.7	1823.2	1982.3	2252.3	2464.1	2618.7	2632.3	2510.9	2454.3	2403.8
60°	1522.4	1532.2	1674.7	1907.7	2345.0	2884.1	2952.0	2931.6	2703.9	2600.6	2587.1
62.5°	1074.5	1079.0	1247.9	1554.8	2139.9	3084.7	3459.5	3350.1	2978.4	2816.3	2861.5
65°	676.4	674.1	744.2	989.3	1591.7	2887.2	4086.8	4006.9	3482.8	3086.2	3075.7
67.5°	499.2	487.1	505.9	582.1	909.4	2266.6	4202.2	4562.6	3963.1	3198.6	2890.2
68°	478.8	468.2	487.9	546.7	786.4	2051.7	4146.4	4602.6	4039.3	3180.5	2826.8
70°	406.4	396.6	413.2	457.7	547.4	1331.6	3658.5	4425.4	4108.7	3026.7	2491.3
72.5°	288.8	294.1	337.8	392.8	463.7	683.1	2694.1	3634.4	3534.1	2691.9	1895.6
75°	171.2	181.0	238.3	316.7	426.0	450.9	1738.0	2642.1	2593.1	1863.9	1027.0
77.5°	60.3	64.1	118.4	211.1	351.4	357.4	968.2	1661.1	1545.0	761.6	303.1
80°	21.9	21.9	43.7	117.6	227.0	273.0	514.2	886.7	610.0	197.6	83.7
82.5°	3.8	3.8	9.8	40.0	100.3	145.5	239.0	315.2	181.0	43.7	41.5
85°	0.0	0.0	0.0	0.0	1.5	1.5	70.1	70.9	33.2	6.0	18.1
87.5°	0.0	0.0	0.0	0.0	0.0	0.8	1.5	1.5	1.5	1.5	2.3
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°	1360.3	1360.3	1360.3	1360.3	1360.3	1360.3	1360.3	1360.3	1360.3	1360.3	1360.3
2.5°	1348.9	1347.4	1339.1	1324.1	1311.2	1290.1	1286.4	1266.0	1258.5	1252.4	1258.5
5°	1325.6	1317.3	1289.4	1255.4	1209.5	1155.2	1123.5	1079.8	1070.7	1046.6	1060.9
7.5°	1287.1	1268.3	1216.2	1143.1	1058.6	975.7	912.4	851.3	799.3	781.2	775.9
10°	1246.4	1220.0	1132.5	1019.4	897.3	769.9	675.6	587.4	538.4	492.4	490.9
12.5°	1207.9	1168.0	1041.3	883.7	713.3	561.7	439.6	346.9	288.8	257.1	265.4
15°	1177.0	1123.5	949.3	748.0	532.3	361.9	248.8	189.3	168.9	159.1	160.6
17.5°	1146.9	1076.0	860.3	606.2	379.3	223.2	161.4	141.0	135.0	132.7	131.2
20°	1119.7	1030.0	766.8	478.1	250.3	154.6	132.7	125.9	123.7	122.2	122.2
22.5°	1092.6	981.7	673.3	354.4	171.2	126.7	119.1	116.1	114.6	112.3	112.3
25°	1067.7	935.0	579.8	248.1	131.2	113.1	107.8	104.8	101.8	99.5	99.5
27.5°	1048.8	899.6	493.1	175.7	110.1	101.8	96.5	91.2	87.5	84.5	84.5
30°	1036.8	864.9	409.4	132.7	98.0	90.5	83.7	76.9	70.9	67.1	66.4
32.5°	1030.0	836.2	331.8	108.6	87.5	79.2	70.9	63.3	56.6	52.0	52.0
35°	1033.0	813.6	254.1	92.0	79.2	69.4	60.3	51.3	45.2	41.5	40.7
37.5°	1052.6	800.8	189.3	81.4	70.9	60.3	51.3	42.2	36.2	33.2	32.4
40°	1089.6	803.8	144.0	73.9	64.8	52.8	42.2	34.7	29.4	26.4	26.4
42.5°	1164.2	825.7	113.9	67.9	58.1	45.2	35.4	28.7	24.1	21.9	21.1
45°	1263.0	867.1	93.5	62.6	51.3	38.5	30.2	24.1	19.6	17.3	17.3
47.5°	1412.3	933.5	80.7	57.3	44.5	32.4	24.9	19.6	15.1	13.6	12.8
50°	1585.0	1026.2	70.9	51.3	39.2	27.1	21.1	15.1	12.1	9.8	9.8
52.5°	1761.4	1129.5	64.1	46.0	33.9	23.4	16.6	11.3	8.3	6.8	6.8
55°	1923.5	1216.2	57.3	41.5	28.7	19.6	13.6	9.0	6.0	4.5	4.5
57.5°	2080.4	1295.4	49.8	36.2	23.4	15.8	10.6	6.8	4.5	3.0	3.0
60°	2277.2	1398.0	43.0	30.9	18.9	12.8	8.3	5.3	3.0	2.3	1.5
62.5°	2514.7	1472.6	36.2	24.9	15.1	9.8	6.0	3.8	2.3	0.8	0.8
65°	2602.1	1373.8	30.2	20.4	12.1	7.5	4.5	3.0	1.5	0.8	0.8
67.5°	2357.8	1106.9	24.1	15.8	9.0	5.3	3.8	2.3	1.5	0.8	0.8
68°	2290.0	1052.6	23.4	15.1	8.3	5.3	3.0	2.3	0.8	0.8	0.0
70°	1933.3	845.3	18.9	11.3	6.8	4.5	3.0	1.5	0.8	0.8	0.0
72.5°	1433.4	582.9	13.6	7.5	4.5	3.0	2.3	1.5	0.8	0.8	0.0
75°	756.3	227.0	10.6	6.0	3.8	3.0	2.3	2.3	1.5	0.8	0.8
77.5°	217.2	71.6	8.3	4.5	3.8	3.8	3.8	3.0	3.0	2.3	1.5
80°	63.3	23.4	5.3	3.0	3.8	3.8	4.5	3.8	3.8	3.0	3.0
82.5°	33.9	9.0	3.0	2.3	2.3	3.0	3.8	3.0	2.3	1.5	0.8
85°	14.3	3.0	2.3	1.5	1.5	1.5	1.5	1.5	1.5	0.8	0.8
87.5°	0.8	1.5	1.5	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
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)