

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: P401756

Luminaire Tested: **ENT-SA1E-830-U-SL2**

Issue Date: 5/20/2020

Test Information

Test Method: LM-79-08
Report Number: P401756
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-SA1E-830-U-SL2
Description: ENTRI LED LUMINAIRE
(1) 80 CRI, 3000K, 1050mA 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: 5521 lumens
Efficiency: N/A
Efficacy: 96.5 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

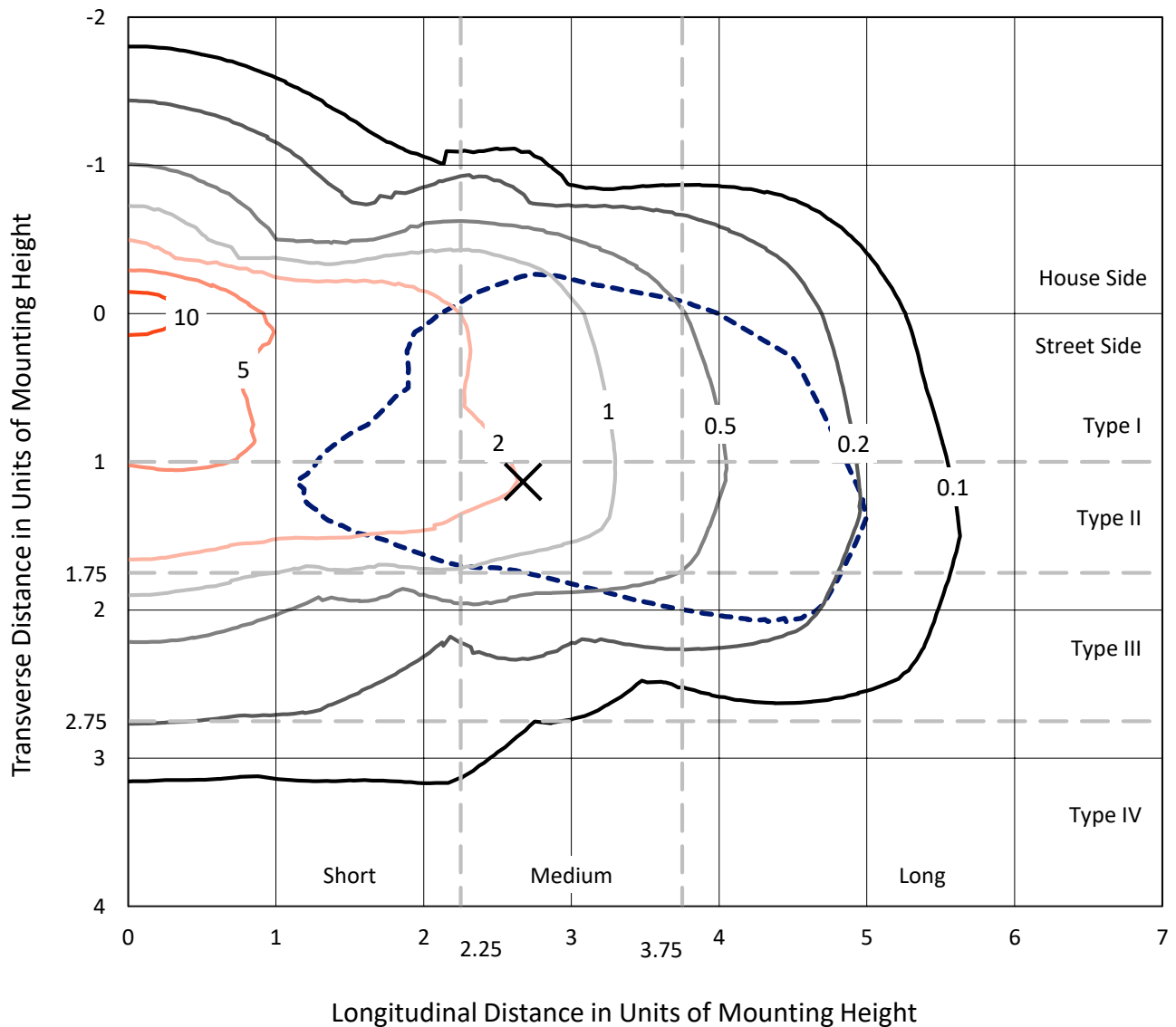
Input Watts (W): 57.2
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



REPORT NUMBER: P401756
 CATALOG NUMBER: ENT-SA1E-830-U-SL2

Iso-Footcandle Lines of Horizontal Illumination

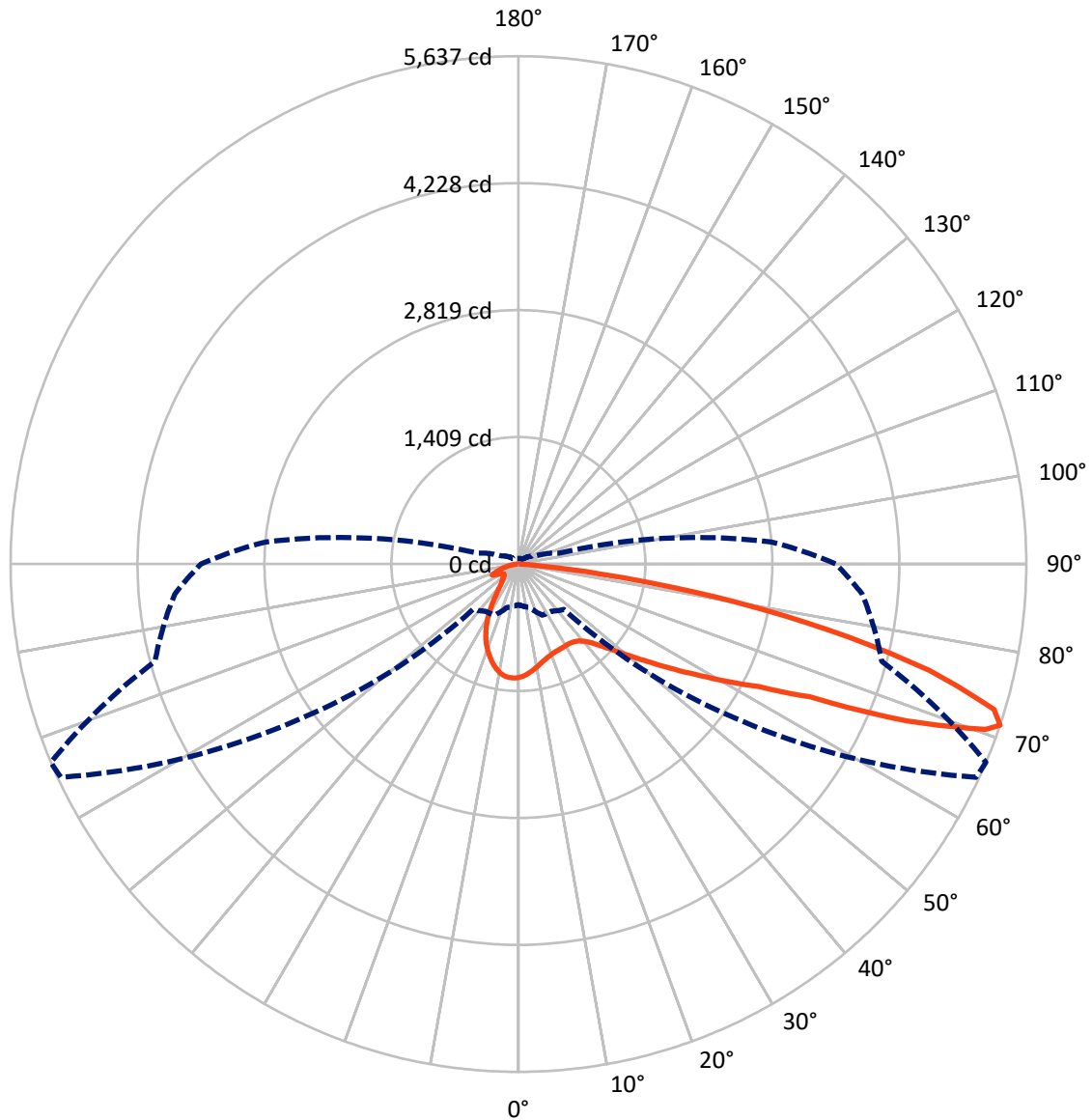
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 12.6 fc
 Type III - Medium - Non-Cutoff

REPORT NUMBER: P401756
CATALOG NUMBER: ENT-SA1E-830-U-SL2

Luminous Intensity Polar Plot



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

REPORT NUMBER: P401756

CATALOG NUMBER: ENT-SA1E-830-U-SL2

FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1131.1	0.0	1131.1
	% Fixture	20.5	0.0	20.5
Street Side	Lumens	4389.9	0.0	4389.9
	% Fixture	79.5	0.0	79.5
Total	Lumens	5521.0	0.0	5521.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	111.5	2.0
10°-20°	274.2	5.0
20°-30°	370.1	6.7
30°-40°	487.5	8.8
40°-50°	694.4	12.6
50°-60°	1060.8	19.2
60°-70°	1324.5	24.0
70°-80°	1069.1	19.4
80°-90°	128.9	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°	5521.0	100.0
0°-180°	5521.0	100.0



REPORT NUMBER: P401756

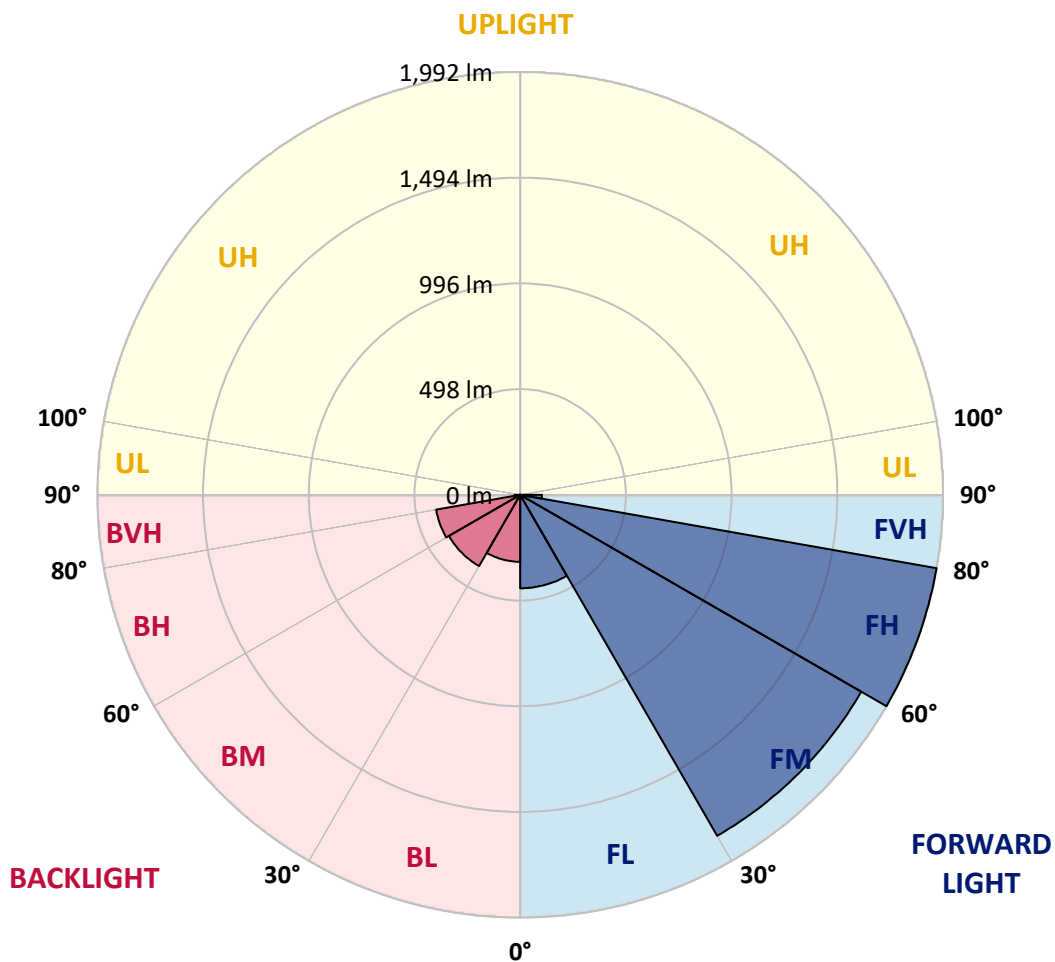
CATALOG NUMBER: ENT-SA1E-830-U-SL2

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	440.3	8.0			
FM	(30°-60°)	1855.1	33.6			
FH	(60°-80°)	1991.7	36.1			G2/5000
FVH	(80°-90°)	102.8	1.9			G2/225
BL	(0°-30°)	315.6	5.7	B1/500		
BM	(30°-60°)	387.5	7.0	B1/1000		
BH	(60°-80°)	401.9	7.3	B1/500		G1/500
BVH	(80°-90°)	26.1	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





REPORT NUMBER: P401756

CATALOG NUMBER: ENT-SA1E-830-U-SL2

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	67°	75°	85°
0°	1258.9	1258.9	1258.9	1258.9	1258.9	1258.9	1258.9	1258.9	1258.9	1258.9	1258.9
2.5°	1187.4	1193.0	1193.8	1204.9	1208.9	1221.6	1228.7	1240.7	1242.2	1249.4	1254.2
5°	1110.3	1111.1	1115.9	1125.4	1140.5	1163.6	1181.0	1210.5	1216.0	1236.7	1255.0
7.5°	1041.2	1045.1	1053.1	1067.4	1084.9	1111.9	1138.9	1179.5	1187.4	1220.8	1255.8
10°	994.3	998.2	1004.6	1020.5	1038.0	1068.2	1100.8	1147.7	1156.4	1202.5	1253.4
12.5°	956.9	960.9	965.7	983.1	1002.2	1032.4	1065.8	1118.3	1127.0	1180.3	1247.8
15°	932.3	933.1	939.4	953.7	975.2	1004.6	1038.0	1092.0	1102.4	1162.8	1246.2
17.5°	917.2	918.8	924.3	935.5	954.5	983.1	1015.7	1070.6	1082.5	1148.5	1247.0
20°	918.0	919.6	922.7	926.7	940.2	964.9	999.0	1054.7	1066.6	1139.7	1252.6
22.5°	934.7	935.5	936.3	930.7	935.5	952.9	986.3	1043.5	1056.3	1135.7	1258.9
25°	966.5	966.5	964.9	952.1	941.8	949.0	979.2	1039.6	1052.3	1132.6	1265.3
27.5°	1010.2	1013.3	1005.4	990.3	966.5	954.5	977.6	1036.4	1049.1	1132.6	1268.5
30°	1069.8	1071.4	1068.2	1048.3	1009.4	976.8	982.4	1034.0	1046.7	1131.0	1269.3
32.5°	1130.2	1134.9	1138.9	1121.4	1074.5	1016.5	1001.4	1037.2	1048.3	1130.2	1266.9
35°	1191.4	1194.6	1213.6	1210.5	1159.6	1076.1	1032.4	1049.9	1059.4	1134.2	1268.5
37.5°	1243.8	1251.0	1278.8	1300.3	1260.5	1157.2	1085.7	1077.7	1083.3	1154.0	1277.2
40°	1300.3	1310.6	1351.9	1392.5	1375.0	1258.9	1161.2	1127.8	1126.2	1190.6	1298.7
42.5°	1363.8	1375.8	1429.0	1487.8	1493.4	1388.5	1262.1	1198.5	1196.9	1253.4	1345.6
45°	1438.6	1449.7	1522.0	1591.9	1626.1	1533.1	1386.1	1298.7	1299.5	1340.8	1420.3
47.5°	1530.7	1548.2	1618.2	1707.2	1768.4	1696.1	1536.3	1438.6	1432.2	1472.7	1542.7
50°	1660.3	1674.6	1732.6	1819.3	1926.6	1893.2	1725.5	1607.0	1602.3	1621.4	1706.4
52.5°	1796.2	1801.0	1828.8	1918.6	2099.0	2132.4	1958.3	1816.1	1797.8	1808.1	1909.9
55°	1804.2	1814.5	1832.8	1946.4	2254.0	2419.3	2215.1	2062.5	2038.6	2031.5	2141.1
57.5°	1638.8	1655.5	1679.4	1826.4	2260.4	2750.7	2579.9	2350.2	2307.3	2271.5	2388.3
60°	1288.3	1309.8	1353.5	1533.9	2099.0	2939.9	3188.7	2672.9	2634.7	2513.1	2629.9
62.5°	931.5	940.2	982.4	1063.4	1665.9	2951.0	3822.9	3094.1	2999.5	2748.4	2838.2
65°	750.3	764.6	777.3	776.5	986.3	2617.2	4244.1	3843.6	3558.2	3011.4	3067.1
67.5°	618.3	623.1	654.1	708.2	670.8	1616.6	4286.3	4938.8	4649.5	3365.9	3338.9
70°	516.6	518.2	549.2	646.2	642.2	834.5	3594.0	5569.0	5499.1	3947.7	3764.1
71°	452.2	465.7	499.9	625.5	639.0	712.9	3053.6	5602.4	5637.4	4175.8	3830.1
72.5°	356.1	356.1	404.5	573.8	644.6	658.1	2250.0	5420.4	5521.3	4434.9	3715.6
75°	209.0	207.4	233.7	399.8	658.9	655.7	1228.7	4504.8	4709.1	4481.8	3439.0
77.5°	117.6	120.0	134.3	222.5	523.0	629.5	705.8	3280.1	3520.9	3749.0	2908.1
80°	54.0	57.2	67.6	108.1	308.4	543.6	503.9	2130.0	2221.4	2253.2	1374.2
82.5°	14.3	15.9	20.7	41.3	119.2	370.4	372.8	891.7	921.2	532.5	294.9
85°	0.0	0.0	0.0	0.0	1.6	45.3	105.7	160.5	133.5	70.7	60.4
87.5°	0.0	0.0	0.0	0.0	0.0	1.6	2.4	3.2	3.2	3.2	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



REPORT NUMBER: P401756

CATALOG NUMBER: ENT-SA1E-830-U-SL2

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	1258.9	1258.9	1258.9	1258.9	1258.9	1258.9	1258.9	1258.9	1258.9	1258.9	1258.9
2.5°	1258.1	1261.3	1266.9	1266.1	1264.5	1255.0	1260.5	1255.0	1254.2	1251.8	1252.6
5°	1261.3	1266.1	1269.3	1262.1	1250.2	1229.5	1222.4	1204.1	1192.2	1185.8	1182.6
7.5°	1266.1	1269.3	1267.7	1247.8	1216.8	1177.9	1144.5	1118.3	1090.4	1085.7	1084.1
10°	1266.1	1269.3	1256.6	1218.4	1165.2	1104.0	1053.1	1010.2	967.2	951.4	953.7
12.5°	1262.9	1264.5	1235.1	1173.9	1096.8	1013.3	941.8	871.1	816.2	782.9	776.5
15°	1260.5	1258.1	1206.5	1118.3	1015.7	912.4	804.3	708.9	643.8	600.1	594.5
17.5°	1260.5	1251.8	1172.3	1054.7	927.5	785.2	642.2	538.9	466.5	441.1	440.3
20°	1262.1	1243.0	1135.7	988.7	817.8	634.2	479.3	391.0	364.0	360.0	360.8
22.5°	1263.7	1231.1	1096.0	914.0	695.4	472.9	342.6	310.8	313.1	322.7	321.9
25°	1262.1	1215.2	1049.1	830.5	561.9	341.0	276.6	268.6	282.9	294.1	297.2
27.5°	1258.1	1194.6	999.0	731.2	428.4	268.6	241.6	240.8	255.1	265.5	264.7
30°	1246.2	1169.9	941.0	626.3	309.2	228.9	217.8	220.2	229.7	239.2	239.2
32.5°	1233.5	1142.1	879.8	511.8	237.6	207.4	203.5	204.3	210.6	217.8	217.0
35°	1220.0	1115.1	817.0	392.6	208.2	194.7	193.1	192.3	194.7	196.3	196.3
37.5°	1212.0	1091.2	747.9	295.7	192.3	186.8	183.6	180.4	179.6	178.0	176.4
40°	1215.2	1075.3	681.1	228.9	182.8	178.0	173.3	168.5	165.3	163.7	162.9
42.5°	1237.5	1070.6	607.2	197.1	174.1	170.1	163.7	155.8	152.6	152.6	151.8
45°	1289.1	1084.9	538.1	181.2	166.1	161.3	151.0	145.4	143.1	143.9	143.9
47.5°	1370.2	1125.4	476.1	173.3	160.5	153.4	141.5	135.9	134.3	135.1	135.1
50°	1491.8	1201.7	412.5	166.1	154.2	144.7	134.3	128.0	125.6	125.6	125.6
52.5°	1669.8	1327.3	366.4	161.3	148.6	137.5	127.2	120.0	116.8	116.8	116.0
55°	1886.8	1491.0	348.9	158.2	141.5	131.1	120.0	112.9	108.1	106.5	107.3
57.5°	2124.5	1703.2	374.3	157.4	133.5	124.0	112.9	104.1	99.3	98.6	97.8
60°	2369.2	1913.8	447.5	153.4	127.2	115.2	104.9	97.0	92.2	90.6	89.8
62.5°	2580.7	2123.7	568.3	150.2	122.4	107.3	96.2	89.0	85.0	82.7	82.7
65°	2835.8	2364.5	752.7	154.2	120.0	99.3	88.2	81.9	78.7	76.3	76.3
67.5°	3183.9	2721.3	892.5	173.3	125.6	93.0	79.5	74.7	72.3	70.7	70.7
70°	3526.4	2921.6	620.7	203.5	139.9	87.4	71.5	68.4	66.8	65.2	65.2
71°	3521.7	2814.3	466.5	210.6	144.7	85.8	68.4	66.0	64.4	63.6	62.8
72.5°	3345.2	2558.4	334.6	204.3	142.3	81.1	64.4	62.0	60.4	60.4	59.6
75°	3000.3	2254.8	261.5	170.9	119.2	72.3	57.2	55.6	54.0	53.3	54.0
77.5°	2458.3	1804.2	205.8	135.1	90.6	59.6	50.9	48.5	47.7	46.9	47.7
80°	1129.4	786.0	150.2	104.9	67.6	47.7	42.9	42.1	41.3	40.5	40.5
82.5°	271.8	220.2	80.3	69.9	46.1	36.6	34.2	34.2	34.2	33.4	33.4
85°	59.6	59.6	32.6	32.6	27.8	25.4	27.0	27.0	27.0	25.4	25.4
87.5°	3.2	9.5	10.3	15.1	15.9	15.1	18.3	19.1	18.3	17.5	16.7
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)