

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: P401917

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

Issue Date: 5/20/2020

Test Information

Test Method: LM-79-08
Report Number: P401917
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2004-754-2)
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-HSS
Description: ENTRI LED LUMINAIRE
(1) 80 CRI, 2700K, 1200mA LIGHTSQUARE WITH 16 LEDS AND TYPE II SPILL
LIGHT ELIMINATOR OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4626 lumens
Efficiency: N/A
Efficacy: 70.0 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

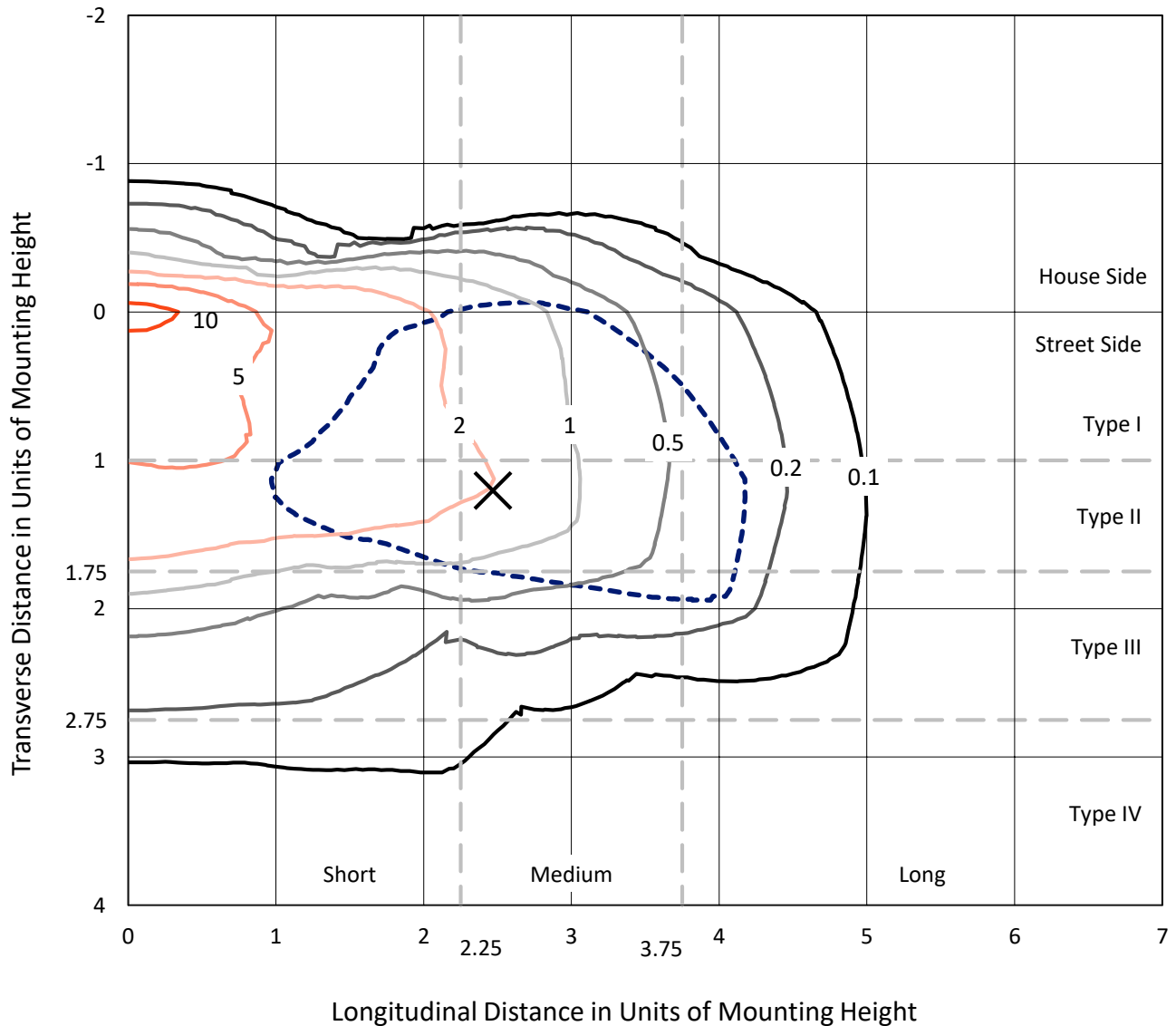
Input Watts (W): 66.1
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd
 - - - 1/2 Max cd

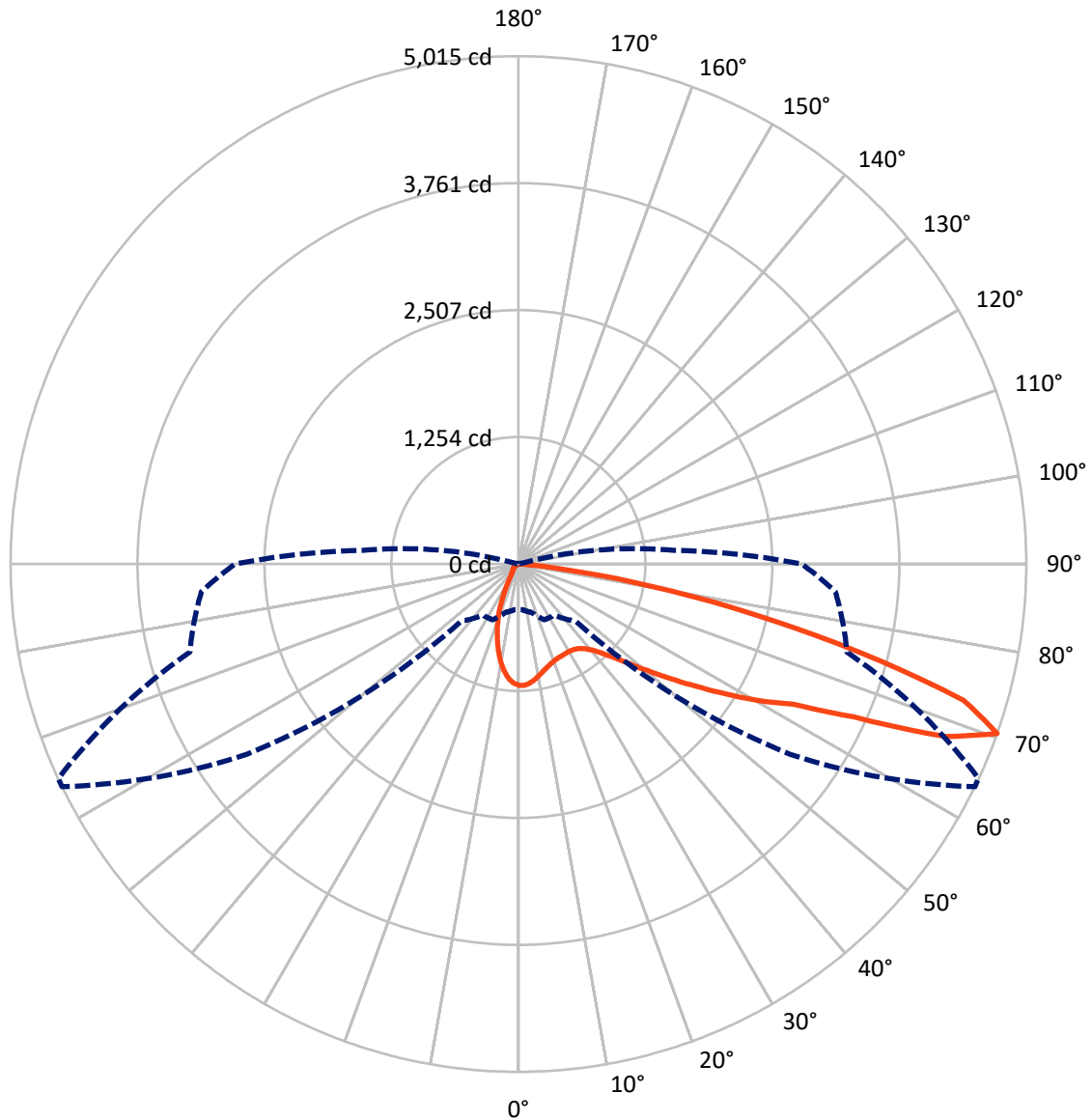


Based on 10 foot mounting height. Maximum calculated value = 12 fc
 Type III - Medium - Non-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 64-Deg Lateral - - - Horizontal Cone Through 70-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	594.3	0.0	594.3
	% Fixture	12.8	0.0	12.8
Street Side	Lumens	4031.7	0.0	4031.7
	% Fixture	87.2	0.0	87.2
Total	Lumens	4626.0	0.0	4626.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	100.9	2.2
10°-20°	223.9	4.8
20°-30°	308.4	6.7
30°-40°	424.7	9.2
40°-50°	632.9	13.7
50°-60°	999.9	21.6
60°-70°	1133.0	24.5
70°-80°	743.9	16.1
80°-90°	58.3	1.3
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°	4626.0	100.0
0°-180°	4626.0	100.0



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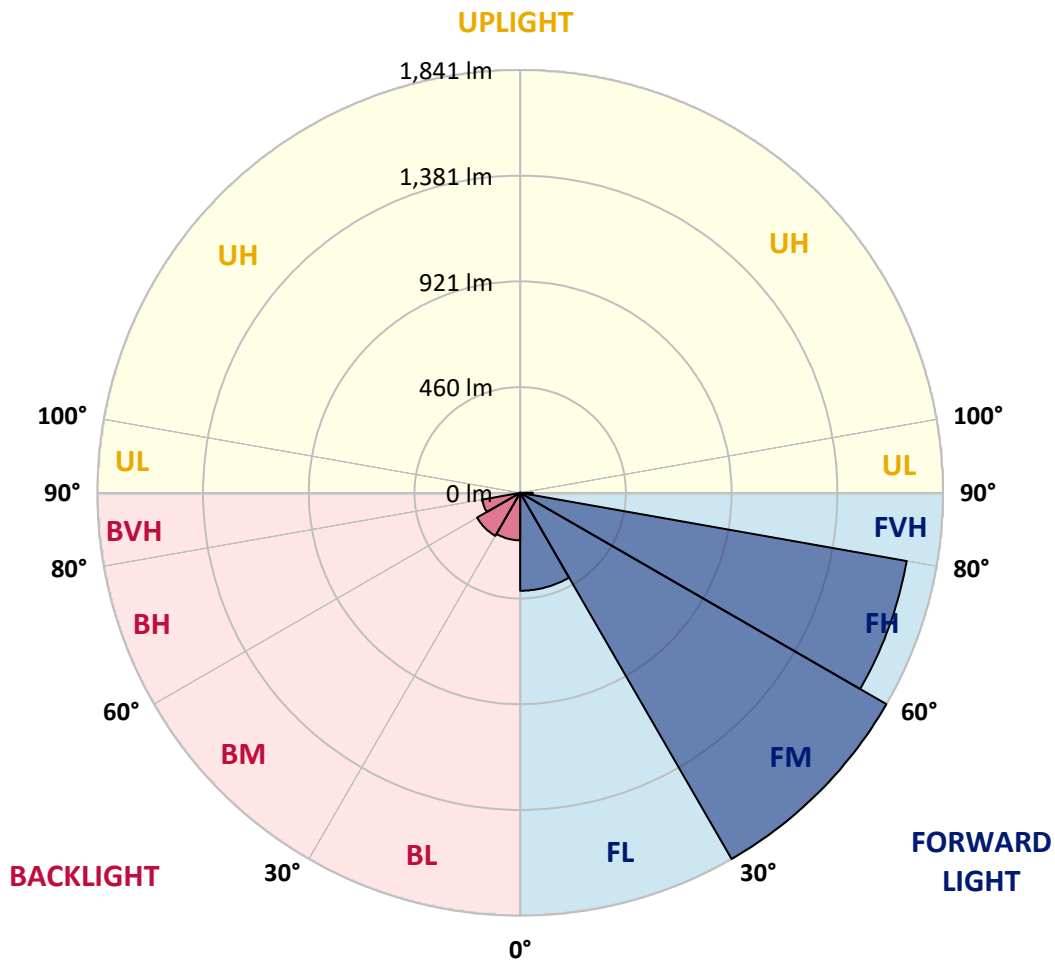
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	426.4	9.2			
FM	(30°-60°)	1841.1	39.8			
FH	(60°-80°)	1709.1	36.9			G1/1800
FVH	(80°-90°)	55.1	1.2			G1/100
BL	(0°-30°)	206.8	4.5	B1/500		
BM	(30°-60°)	216.4	4.7	B0/220		
BH	(60°-80°)	167.8	3.6	B1/500		G1/500
BVH	(80°-90°)	3.2	0.1			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 Medium





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	64°	65°	75°	85°
0°	1197.5	1197.5	1197.5	1197.5	1197.5	1197.5	1197.5	1197.5	1197.5	1197.5	1197.5
2.5°	1164.1	1164.1	1169.8	1175.5	1178.8	1187.7	1194.2	1199.1	1199.1	1202.4	1196.7
5°	1086.9	1086.9	1091.7	1105.6	1120.2	1138.9	1160.1	1181.2	1185.3	1200.8	1199.9
7.5°	1015.3	1021.8	1029.9	1043.7	1059.2	1086.9	1116.1	1152.8	1156.8	1194.2	1202.4
10°	965.6	969.7	974.6	990.0	1012.8	1044.6	1076.3	1119.4	1126.7	1182.9	1202.4
12.5°	925.8	926.6	933.9	951.0	973.0	1003.9	1039.7	1086.9	1095.8	1162.5	1199.1
15°	897.3	896.5	904.6	920.9	942.1	973.8	1008.8	1058.4	1068.1	1145.4	1198.3
17.5°	880.2	881.0	887.5	899.7	920.1	950.2	986.0	1034.8	1044.6	1131.6	1202.4
20°	880.2	880.2	884.3	890.0	905.4	932.3	967.3	1017.7	1027.5	1122.7	1208.1
22.5°	897.3	895.7	898.9	894.1	901.4	920.1	955.9	1006.3	1016.9	1118.6	1217.0
25°	928.2	925.0	927.4	916.8	908.7	916.8	948.6	1001.4	1012.8	1119.4	1225.2
27.5°	971.3	971.3	966.5	951.8	931.5	922.5	947.7	998.2	1009.6	1119.4	1230.9
30°	1031.5	1029.1	1021.8	1007.1	975.4	945.3	955.9	998.2	1009.6	1120.2	1232.5
32.5°	1091.7	1093.4	1097.4	1082.8	1039.7	984.4	975.4	1005.5	1015.3	1119.4	1230.0
35°	1152.8	1153.6	1171.5	1173.1	1117.8	1047.0	1008.8	1025.0	1031.5	1127.5	1231.7
37.5°	1206.4	1210.5	1245.5	1262.6	1217.0	1127.5	1061.6	1061.6	1064.9	1149.5	1241.4
40°	1266.6	1277.2	1319.5	1357.8	1339.9	1230.9	1138.9	1115.3	1117.0	1189.4	1263.4
42.5°	1336.6	1349.6	1404.9	1460.3	1459.4	1357.8	1236.5	1200.8	1202.4	1258.5	1308.1
45°	1425.3	1434.2	1504.2	1573.3	1588.0	1497.7	1359.4	1312.2	1313.8	1363.5	1395.2
47.5°	1533.5	1544.1	1611.6	1694.6	1732.0	1666.1	1518.8	1467.6	1462.7	1497.7	1520.5
50°	1675.0	1695.4	1735.2	1815.0	1905.3	1861.3	1705.9	1654.7	1648.2	1675.8	1683.2
52.5°	1810.1	1828.8	1845.1	1918.3	2093.2	2103.8	1935.4	1879.2	1872.7	1879.2	1888.2
55°	1830.4	1841.0	1853.2	1952.4	2245.3	2412.1	2196.5	2129.8	2111.1	2098.9	2129.0
57.5°	1668.5	1662.0	1702.7	1837.7	2270.5	2752.9	2549.6	2420.2	2402.3	2334.8	2304.7
60°	1321.2	1312.2	1350.4	1535.1	2129.0	2922.2	3039.3	2741.6	2697.6	2471.5	2442.2
62.5°	928.2	917.6	967.3	1076.3	1651.4	2888.8	3591.7	3045.8	2958.8	2592.7	2552.8
65°	715.1	710.2	737.0	761.5	1007.9	2502.4	3895.9	3639.7	3459.9	2724.5	2673.2
67.5°	560.5	567.0	600.4	671.2	650.8	1559.5	3867.5	4545.9	4366.1	2966.9	2934.4
70°	450.7	452.3	493.8	606.9	614.2	794.0	3274.4	5014.5	5012.1	3358.2	3141.8
72.5°	272.5	279.8	347.4	524.7	619.9	607.7	2201.4	4594.7	4658.2	3449.3	2833.5
75°	131.0	138.3	179.8	352.3	615.8	591.4	1191.0	3478.6	3559.9	3093.0	2297.4
77.5°	48.8	55.3	83.0	172.5	456.4	541.8	626.4	2345.4	2409.6	2264.0	1556.3
80°	15.5	17.9	32.5	78.9	231.9	447.4	403.5	1322.8	1365.9	990.9	523.1
82.5°	1.6	2.4	8.9	26.8	89.5	227.8	236.7	497.9	519.8	193.6	105.8
85°	0.0	0.0	0.0	0.0	1.6	1.6	58.6	95.2	78.1	18.7	30.9
87.5°	0.0	0.0	0.0	0.0	0.0	0.8	1.6	2.4	2.4	2.4	3.3
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°	1197.5	1197.5	1197.5	1197.5	1197.5	1197.5	1197.5	1197.5	1197.5	1197.5	1197.5
2.5°	1195.9	1195.9	1190.2	1181.2	1169.8	1153.6	1149.5	1136.5	1136.5	1125.9	1124.3
5°	1197.5	1192.6	1173.9	1146.2	1108.0	1066.5	1040.5	1012.0	987.6	972.2	973.8
7.5°	1197.5	1186.9	1149.5	1088.5	1016.9	945.3	890.8	827.3	798.1	778.5	787.5
10°	1194.2	1176.3	1111.3	1018.5	905.4	806.2	716.7	643.5	593.1	571.9	554.0
12.5°	1186.9	1160.9	1063.3	931.5	786.7	656.5	532.9	436.9	370.2	336.8	332.7
15°	1180.4	1144.6	1007.1	836.3	652.4	482.4	344.1	252.2	195.2	182.2	183.9
17.5°	1178.8	1129.2	953.4	735.4	521.5	321.3	198.5	160.3	152.1	148.9	148.1
20°	1179.6	1115.3	894.9	635.4	369.3	200.1	150.5	141.6	138.3	136.7	135.9
22.5°	1182.9	1099.9	837.1	530.4	252.2	146.4	134.2	128.5	124.5	122.0	121.2
25°	1182.9	1082.8	772.8	419.0	165.1	128.5	120.4	113.1	107.4	104.1	104.1
27.5°	1180.4	1063.3	706.1	318.1	131.0	114.7	105.8	96.0	88.7	84.6	84.6
30°	1173.1	1039.7	641.9	222.1	114.7	102.5	91.1	78.9	70.0	65.9	64.3
32.5°	1162.5	1014.5	567.8	156.2	103.3	89.5	76.5	63.5	55.3	50.4	50.4
35°	1151.1	989.2	488.1	119.6	93.6	78.9	64.3	51.3	43.9	40.7	39.9
37.5°	1145.4	962.4	410.0	103.3	83.8	67.5	52.1	41.5	35.8	33.4	32.5
40°	1149.5	942.1	333.5	92.7	74.8	56.9	43.1	35.0	30.1	26.8	26.8
42.5°	1173.9	930.7	261.1	84.6	66.7	48.0	35.8	28.5	23.6	21.2	21.2
45°	1223.5	938.8	198.5	77.3	56.9	39.9	30.1	22.8	17.9	15.5	15.5
47.5°	1306.5	971.3	150.5	70.8	48.8	32.5	24.4	17.9	13.8	12.2	11.4
50°	1427.7	1035.6	118.0	64.3	40.7	27.7	20.3	13.8	10.6	8.9	8.9
52.5°	1602.6	1147.1	100.9	56.9	33.4	22.8	16.3	10.6	8.1	6.5	6.5
55°	1817.4	1288.6	91.1	50.4	26.8	18.7	13.0	8.1	5.7	4.9	4.1
57.5°	1991.5	1400.9	85.4	43.9	22.8	16.3	9.8	6.5	4.9	3.3	3.3
60°	2145.2	1473.3	75.7	36.6	19.5	13.0	8.1	4.9	3.3	2.4	2.4
62.5°	2269.7	1520.5	62.6	29.3	16.3	10.6	6.5	4.1	3.3	2.4	2.4
65°	2411.3	1558.7	51.3	22.8	13.8	8.9	5.7	3.3	2.4	2.4	2.4
67.5°	2688.7	1644.1	38.2	17.9	10.6	7.3	4.9	3.3	2.4	1.6	1.6
70°	2796.9	1544.1	30.1	14.6	8.1	6.5	4.9	3.3	1.6	1.6	1.6
72.5°	2380.3	1156.0	23.6	12.2	7.3	5.7	4.9	3.3	2.4	2.4	1.6
75°	1888.2	781.0	18.7	9.8	7.3	6.5	4.9	4.9	4.1	3.3	3.3
77.5°	1205.6	345.7	14.6	8.1	7.3	8.1	7.3	4.9	4.9	4.1	4.1
80°	359.6	83.0	10.6	6.5	5.7	6.5	7.3	4.9	3.3	2.4	2.4
82.5°	78.1	19.5	6.5	3.3	4.1	3.3	4.9	4.9	3.3	2.4	2.4
85°	26.0	7.3	4.1	3.3	2.4	2.4	2.4	2.4	2.4	2.4	1.6
87.5°	1.6	2.4	2.4	1.6	1.6	1.6	1.6	0.8	0.8	1.6	1.6
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)