

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: P401937

Luminaire Tested: **ENV-SA1F-830-U-SL3-HSS**

Issue Date: 5/20/2020

Test Information

Test Method: LM-79-08
Report Number: P401937
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: ENV-SA1F-830-U-SL3-HSS
Description: ENTRI LED LUMINAIRE
(1) 80 CRI, 3000K, 1200mA 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: 5184 lumens
Efficiency: N/A
Efficacy: 78.4 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 - 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

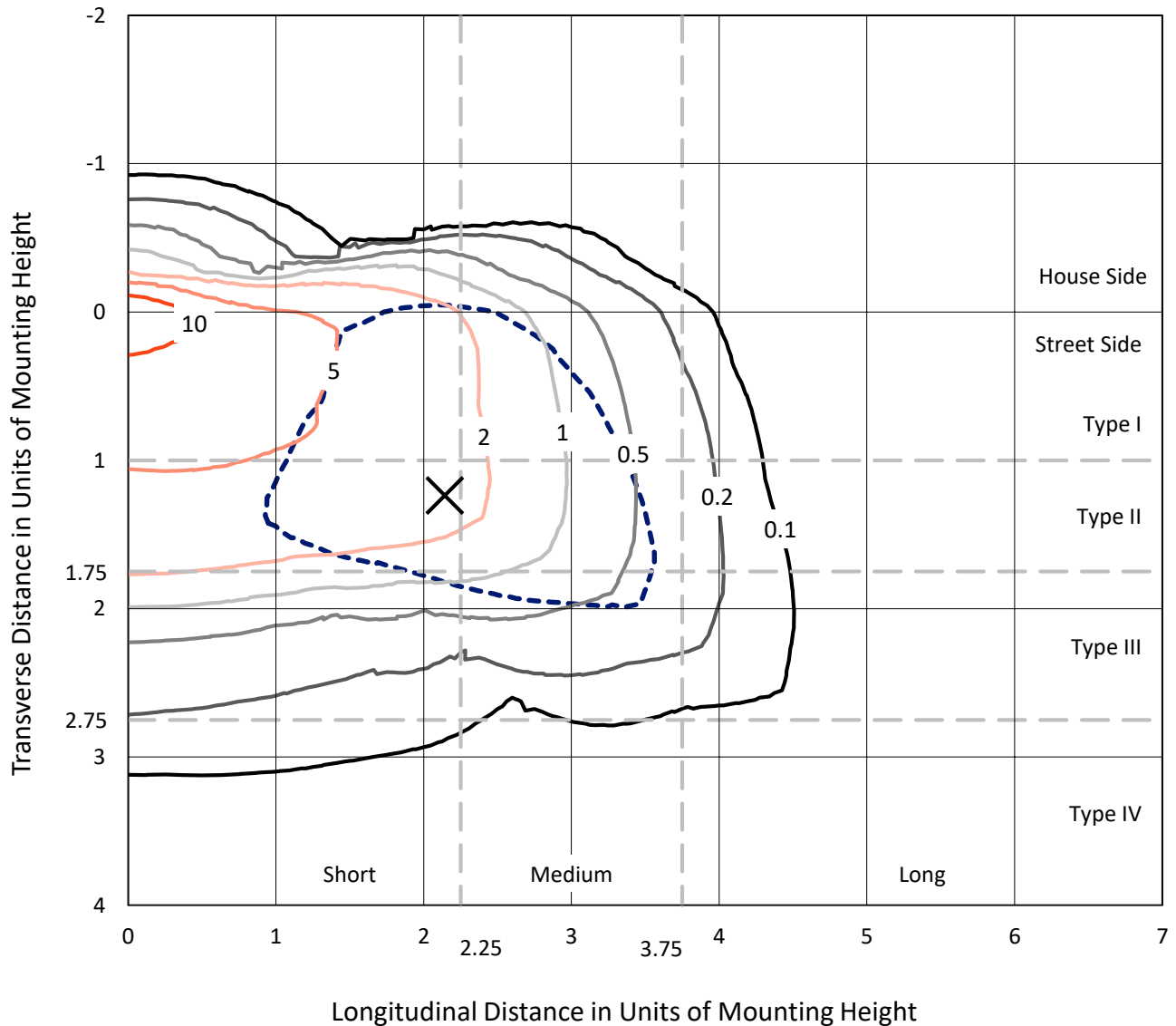


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

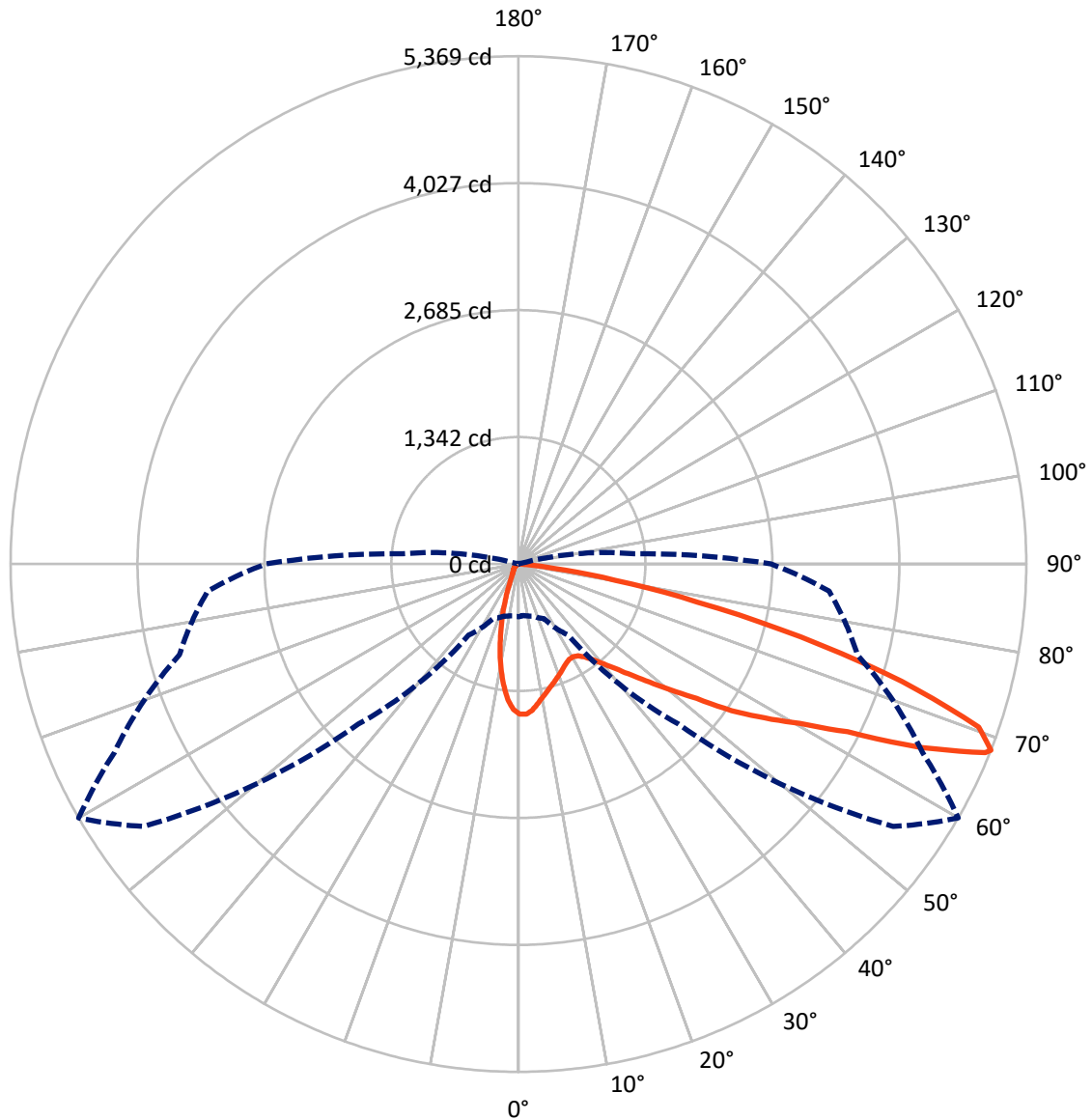


Based on 10 foot mounting height. Maximum calculated value = 15.9 fc
 Type III - Short - Semi-Cutoff

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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
House Side	Lumens	579.6	0.0	579.6
	% Fixture	11.2	0.0	11.2
Street Side	Lumens	4604.4	0.0	4604.4
	% Fixture	88.8	0.0	88.8
Total	Lumens	5184.0	0.0	5184.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	128.8	2.5
10°-20°	262.6	5.1
20°-30°	345.8	6.7
30°-40°	477.2	9.2
40°-50°	723.3	14.0
50°-60°	1167.2	22.5
60°-70°	1386.5	26.7
70°-80°	653.6	12.6
80°-90°	39.0	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°	5184.0	100.0
0°-180°	5184.0	100.0

Coefficient of Utilization



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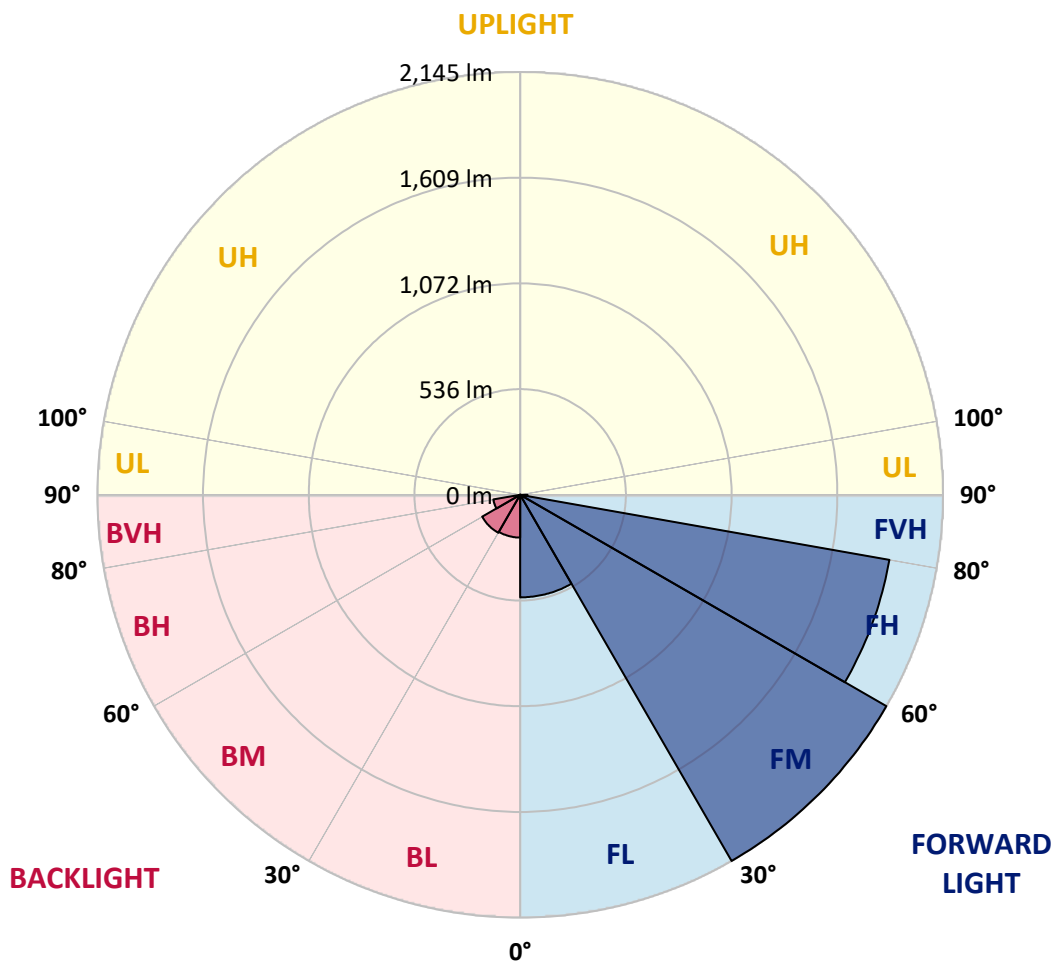
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	520.3	10.0			
FM (30°-60°)	2144.9	41.4			
FH (60°-80°)	1901.8	36.7			G2/5000
FVH (80°-90°)	37.4	0.7			G1/100
BL (0°-30°)	216.9	4.2	B1/500		
BM (30°-60°)	222.8	4.3	B1/1000		
BH (60°-80°)	138.3	2.7	B1/500		G1/500
BVH (80°-90°)	1.7	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-G2

Type III Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	60°	65°	75°	85°
0°	1586.8	1586.8	1586.8	1586.8	1586.8	1586.8	1586.8	1586.8	1586.8	1586.8	1586.8
2.5°	1572.7	1569.2	1578.8	1581.5	1584.1	1589.4	1588.5	1589.4	1590.3	1588.5	1578.0
5°	1465.4	1471.5	1480.3	1491.8	1503.2	1529.6	1540.1	1550.7	1557.7	1563.0	1553.3
7.5°	1359.8	1372.1	1379.2	1400.3	1417.9	1445.2	1468.0	1486.5	1504.1	1523.4	1513.8
10°	1275.4	1279.8	1285.9	1305.3	1331.7	1373.0	1402.9	1425.8	1446.9	1479.5	1471.5
12.5°	1192.7	1195.4	1207.7	1228.8	1256.0	1307.1	1346.6	1373.0	1396.8	1437.2	1438.1
15°	1132.0	1132.9	1140.8	1160.2	1191.8	1246.4	1297.4	1326.4	1359.8	1409.1	1411.7
17.5°	1092.4	1091.6	1093.3	1105.6	1135.5	1187.4	1249.0	1283.3	1322.9	1386.2	1388.9
20°	1080.1	1078.4	1074.8	1072.2	1090.7	1135.5	1205.0	1242.8	1289.5	1369.5	1370.4
22.5°	1090.7	1087.2	1079.2	1064.3	1069.6	1098.6	1156.6	1202.4	1259.6	1360.7	1354.6
25°	1116.2	1116.2	1105.6	1081.9	1069.6	1075.7	1122.3	1166.3	1229.7	1356.3	1343.1
27.5°	1158.4	1156.6	1142.6	1117.9	1095.1	1078.4	1101.2	1142.6	1207.7	1361.6	1337.8
30°	1209.4	1204.1	1189.2	1171.6	1143.5	1107.4	1105.6	1136.4	1197.1	1378.3	1341.4
32.5°	1257.8	1257.8	1251.6	1234.9	1207.7	1160.2	1132.9	1157.5	1210.3	1405.6	1352.8
35°	1317.6	1316.7	1318.5	1312.3	1288.6	1238.5	1194.5	1206.8	1250.8	1451.3	1380.1
37.5°	1365.1	1366.0	1380.9	1391.5	1380.9	1328.2	1282.4	1282.4	1319.4	1519.9	1426.7
40°	1411.7	1413.5	1441.6	1472.4	1475.1	1432.8	1388.9	1388.0	1409.1	1604.4	1498.8
42.5°	1453.9	1461.0	1501.4	1554.2	1585.0	1556.9	1524.3	1513.8	1524.3	1731.9	1615.8
45°	1498.8	1512.9	1569.2	1645.7	1695.8	1696.7	1684.4	1672.1	1677.4	1875.3	1772.4
47.5°	1556.9	1572.7	1643.1	1737.2	1832.2	1856.8	1868.2	1863.8	1849.8	2056.5	1974.7
50°	1651.0	1665.9	1731.9	1837.4	1967.6	2056.5	2087.2	2092.5	2074.1	2257.0	2204.2
52.5°	1811.1	1819.9	1881.4	1965.0	2111.0	2277.2	2358.2	2359.0	2317.7	2491.9	2452.3
55°	1982.6	2005.4	2077.6	2174.3	2324.7	2511.2	2713.5	2735.5	2608.0	2697.7	2633.5
57.5°	1985.2	2007.2	2126.8	2312.4	2627.3	2874.5	3054.8	3070.6	2929.0	2863.0	2804.1
60°	1775.9	1787.3	1953.5	2225.3	2735.5	3364.4	3443.6	3419.8	3154.2	3033.7	3017.8
62.5°	1253.4	1258.7	1455.7	1813.7	2496.3	3598.4	4035.5	3908.0	3474.3	3285.2	3338.0
65°	789.0	786.3	868.1	1154.0	1856.8	3367.9	4767.3	4674.1	4062.8	3600.1	3587.8
67.5°	582.3	568.2	590.2	679.0	1060.8	2644.0	4901.9	5322.3	4623.1	3731.2	3371.4
68°	558.5	546.2	569.1	637.7	917.4	2393.3	4836.8	5369.0	4711.9	3710.1	3297.5
70°	474.1	462.7	482.0	533.9	638.6	1553.3	4267.7	5162.3	4792.8	3530.6	2906.1
72.5°	336.9	343.0	394.1	458.3	540.9	796.9	3142.7	4239.6	4122.6	3140.1	2211.3
75°	199.7	211.1	277.9	369.4	497.0	526.0	2027.4	3082.1	3024.9	2174.3	1198.0
77.5°	70.4	74.8	138.1	246.3	409.9	416.9	1129.4	1937.7	1802.3	888.4	353.6
80°	25.5	25.5	51.0	137.2	264.8	318.4	599.9	1034.4	711.6	230.5	97.6
82.5°	4.4	4.4	11.4	46.6	117.0	169.8	278.8	367.7	211.1	51.0	48.4
85°	0.0	0.0	0.0	0.0	1.8	1.8	81.8	82.7	38.7	7.0	21.1
87.5°	0.0	0.0	0.0	0.0	0.0	0.9	1.8	1.8	1.8	1.8	2.6
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°	1586.8	1586.8	1586.8	1586.8	1586.8	1586.8	1586.8	1586.8	1586.8	1586.8	1586.8
2.5°	1573.6	1571.8	1562.1	1544.5	1529.6	1505.0	1500.6	1476.8	1468.0	1461.0	1468.0
5°	1546.3	1536.6	1504.1	1464.5	1410.8	1347.5	1310.6	1259.6	1249.0	1220.9	1237.6
7.5°	1501.4	1479.5	1418.8	1333.4	1234.9	1138.2	1064.3	993.0	932.4	911.2	905.1
10°	1453.9	1423.2	1321.1	1189.2	1046.7	898.1	788.1	685.2	628.0	574.4	572.6
12.5°	1409.1	1362.5	1214.7	1030.9	832.1	655.3	512.8	404.6	336.9	299.9	309.6
15°	1373.0	1310.6	1107.4	872.5	621.0	422.2	290.3	220.8	197.0	185.6	187.4
17.5°	1337.8	1255.2	1003.6	707.2	442.4	260.4	188.2	164.5	157.4	154.8	153.0
20°	1306.2	1201.5	894.5	557.7	292.0	180.3	154.8	146.9	144.3	142.5	142.5
22.5°	1274.5	1145.2	785.5	413.4	199.7	147.8	139.0	135.5	133.7	131.1	131.1
25°	1245.5	1090.7	676.4	289.4	153.0	131.9	125.8	122.3	118.7	116.1	116.1
27.5°	1223.5	1049.3	575.2	204.9	128.4	118.7	112.6	106.4	102.0	98.5	98.5
30°	1209.4	1008.9	477.6	154.8	114.3	105.5	97.6	89.7	82.7	78.3	77.4
32.5°	1201.5	975.5	387.0	126.7	102.0	92.4	82.7	73.9	66.0	60.7	60.7
35°	1205.0	949.1	296.4	107.3	92.4	80.9	70.4	59.8	52.8	48.4	47.5
37.5°	1227.9	934.1	220.8	95.0	82.7	70.4	59.8	49.3	42.2	38.7	37.8
40°	1271.0	937.6	168.0	86.2	75.6	61.6	49.3	40.5	34.3	30.8	30.8
42.5°	1358.1	963.1	132.8	79.2	67.7	52.8	41.3	33.4	28.1	25.5	24.6
45°	1473.3	1011.5	109.1	73.0	59.8	44.9	35.2	28.1	22.9	20.2	20.2
47.5°	1647.5	1088.9	94.1	66.8	51.9	37.8	29.0	22.9	17.6	15.8	15.0
50°	1848.9	1197.1	82.7	59.8	45.7	31.7	24.6	17.6	14.1	11.4	11.4
52.5°	2054.7	1317.6	74.8	53.7	39.6	27.3	19.4	13.2	9.7	7.9	7.9
55°	2243.8	1418.8	66.8	48.4	33.4	22.9	15.8	10.6	7.0	5.3	5.3
57.5°	2426.8	1511.1	58.1	42.2	27.3	18.5	12.3	7.9	5.3	3.5	3.5
60°	2656.3	1630.7	50.1	36.1	22.0	15.0	9.7	6.2	3.5	2.6	1.8
62.5°	2933.4	1717.8	42.2	29.0	17.6	11.4	7.0	4.4	2.6	0.9	0.9
65°	3035.4	1602.6	35.2	23.7	14.1	8.8	5.3	3.5	1.8	0.9	0.9
67.5°	2750.5	1291.2	28.1	18.5	10.6	6.2	4.4	2.6	1.8	0.9	0.9
68°	2671.3	1227.9	27.3	17.6	9.7	6.2	3.5	2.6	0.9	0.9	0.0
70°	2255.2	986.0	22.0	13.2	7.9	5.3	3.5	1.8	0.9	0.9	0.0
72.5°	1672.1	679.9	15.8	8.8	5.3	3.5	2.6	1.8	0.9	0.9	0.0
75°	882.2	264.8	12.3	7.0	4.4	3.5	2.6	2.6	1.8	0.9	0.9
77.5°	253.3	83.6	9.7	5.3	4.4	4.4	4.4	3.5	3.5	2.6	1.8
80°	73.9	27.3	6.2	3.5	4.4	4.4	5.3	4.4	4.4	3.5	3.5
82.5°	39.6	10.6	3.5	2.6	2.6	3.5	4.4	3.5	2.6	1.8	0.9
85°	16.7	3.5	2.6	1.8	1.8	1.8	1.8	1.8	1.8	0.9	0.9
87.5°	0.9	1.8	1.8	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
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)