

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: P401831

Luminaire Tested: **ENV-SA1F-735-U-SL4-HSS**

Issue Date: 5/20/2020

Test Information

Test Method: LM-79-08
Report Number: P401831
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2004-754-6)
Test Lab: INNOVATION CENTER
Issue Date: 5/20/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: ENV-SA1F-735-U-SL4-HSS
Description: ENTRI LED LUMINAIRE
(1) 70 CRI, 3500K, 1200mA LIGHTSQUARE WITH 16 LEDS AND TYPE IV SPILL
LIGHT ELIMINATOR OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6001 lumens
Efficiency: N/A
Efficacy: 90.8 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type IV - Short - Semi-Cutoff
BUG Rating: B1 - U0 - G2

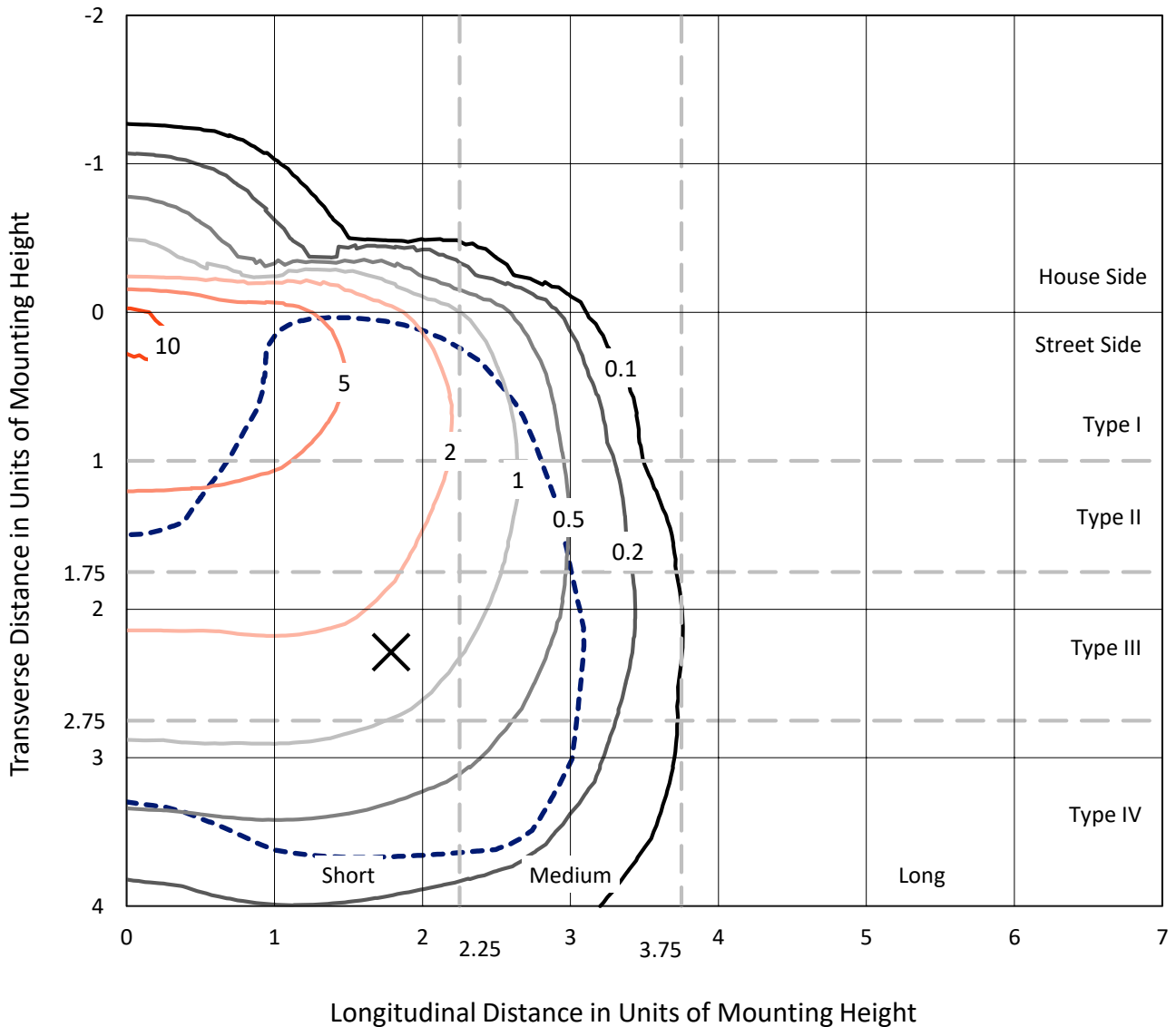
Input Watts (W): 66.1
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

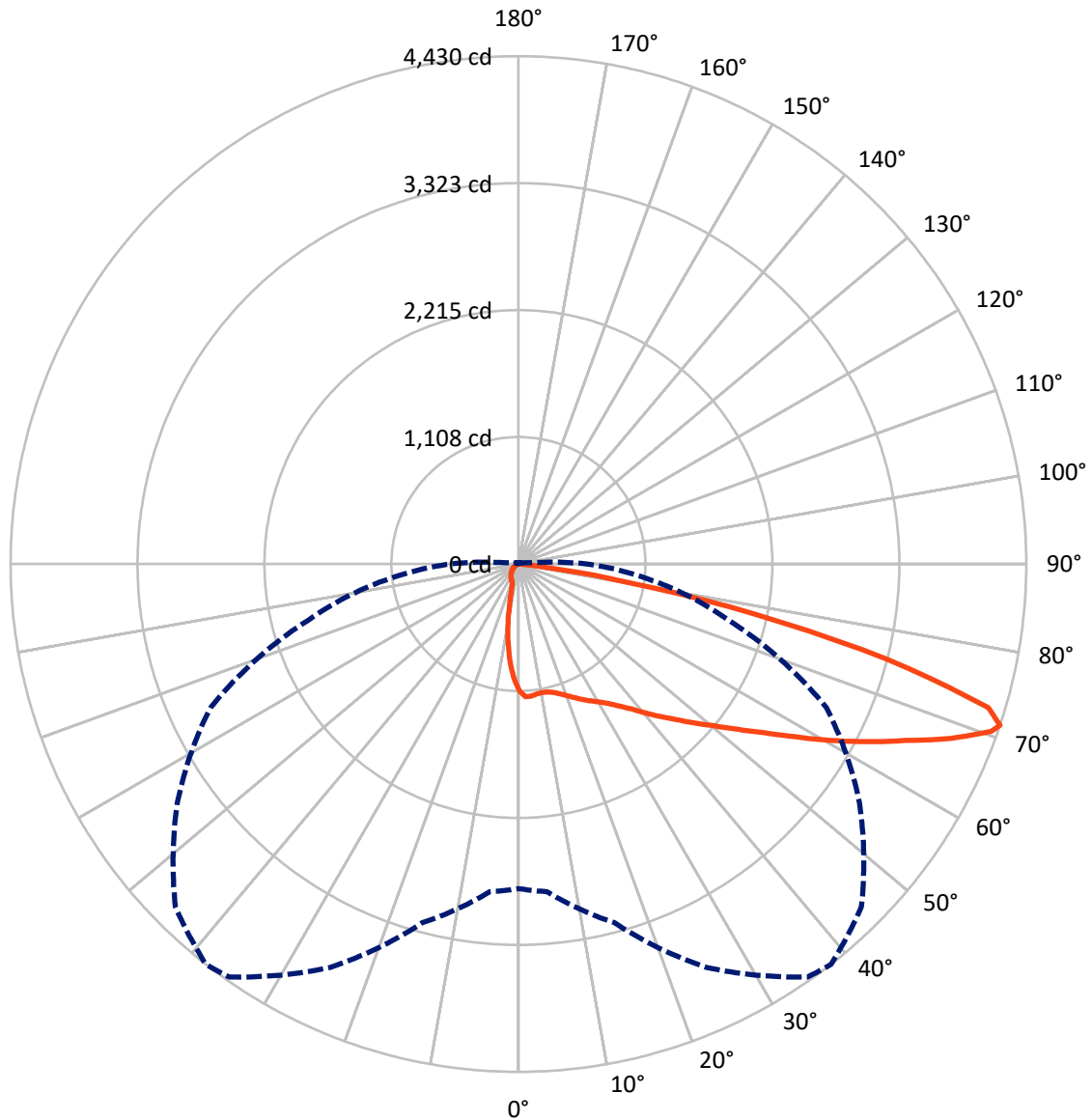
✕ Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 11.4 fc
 Type IV - Short - Semi-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 38-Deg Lateral - - - Horizontal Cone Through 71-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	512.6	0.0	512.6
	% Fixture	8.5	0.0	8.5
Street Side	Lumens	5488.4	0.0	5488.4
	% Fixture	91.5	0.0	91.5
Total	Lumens	6001.0	0.0	6001.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	93.5	1.6
10°-20°	226.2	3.8
20°-30°	362.8	6.0
30°-40°	551.9	9.2
40°-50°	860.1	14.3
50°-60°	1257.7	21.0
60°-70°	1613.2	26.9
70°-80°	986.0	16.4
80°-90°	49.5	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°	6001.0	100.0
0°-180°	6001.0	100.0



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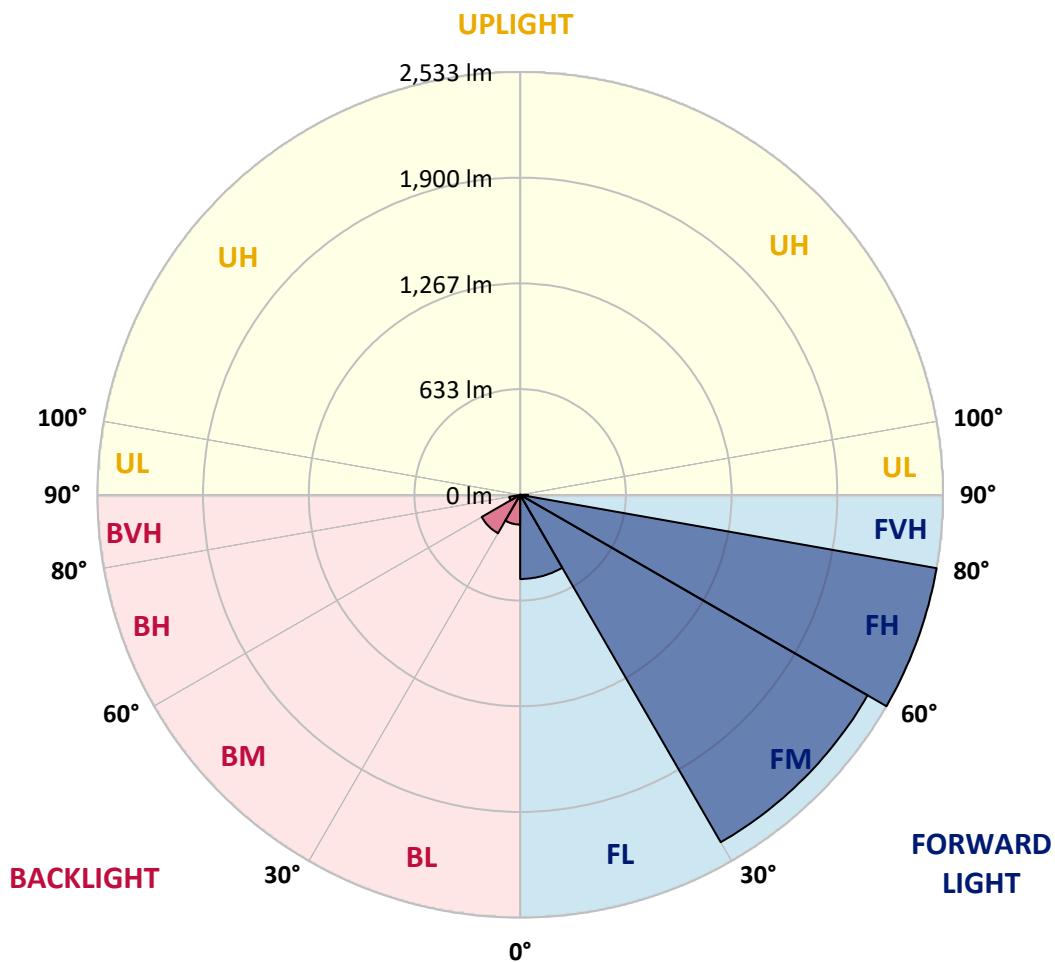
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	504.2	8.4			
FM	(30°-60°)	2403.5	40.1			
FH	(60°-80°)	2533.4	42.2			G2/5000
FVH	(80°-90°)	47.3	0.8			G1/100
BL	(0°-30°)	178.3	3.0	B1/500		
BM	(30°-60°)	266.3	4.4	B1/1000		
BH	(60°-80°)	65.9	1.1	B0/110		G0/110
BVH	(80°-90°)	2.2	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 IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	38°	45°	55°	65°	75°	85°
0°	1106.3	1106.3	1106.3	1106.3	1106.3	1106.3	1106.3	1106.3	1106.3	1106.3	1106.3
2.5°	1171.8	1168.7	1171.8	1168.7	1162.4	1159.3	1155.2	1143.7	1133.3	1120.9	1102.1
5°	1173.9	1171.8	1171.8	1167.6	1160.4	1157.2	1153.1	1141.6	1128.1	1109.4	1081.3
7.5°	1162.4	1161.4	1159.3	1155.2	1146.8	1144.8	1141.6	1128.1	1114.6	1094.9	1060.5
10°	1143.7	1145.8	1144.8	1144.8	1141.6	1139.6	1137.5	1121.9	1107.3	1084.5	1048.1
12.5°	1126.1	1128.1	1133.3	1141.6	1144.8	1145.8	1145.8	1130.2	1112.5	1087.6	1050.1
15°	1114.6	1118.8	1133.3	1150.0	1159.3	1162.4	1165.6	1148.9	1128.1	1101.1	1061.6
17.5°	1111.5	1117.7	1145.8	1171.8	1189.5	1191.6	1191.6	1170.8	1148.9	1117.7	1075.1
20°	1121.9	1130.2	1166.6	1203.0	1224.8	1226.9	1222.7	1195.7	1169.7	1135.4	1086.5
22.5°	1153.1	1160.4	1202.0	1244.6	1265.4	1267.5	1258.1	1220.7	1192.6	1164.5	1102.1
25°	1207.2	1211.3	1256.0	1296.6	1308.0	1311.1	1295.5	1250.8	1218.6	1192.6	1124.0
27.5°	1278.9	1281.0	1321.5	1351.7	1353.8	1352.7	1336.1	1289.3	1257.1	1235.2	1157.2
30°	1353.8	1356.9	1390.1	1409.9	1401.6	1397.4	1382.9	1333.0	1303.8	1287.2	1205.1
32.5°	1423.4	1426.5	1462.9	1473.3	1454.6	1451.5	1441.1	1388.1	1363.1	1371.4	1273.7
35°	1492.0	1492.0	1533.6	1538.8	1522.2	1522.2	1522.2	1458.8	1454.6	1482.7	1369.4
37.5°	1553.4	1563.8	1607.5	1605.4	1602.3	1604.3	1610.6	1562.7	1577.3	1625.1	1495.2
40°	1605.4	1618.9	1677.1	1682.3	1695.8	1707.3	1716.6	1691.7	1726.0	1804.0	1656.3
42.5°	1652.2	1667.8	1742.6	1766.5	1804.0	1819.6	1837.2	1831.0	1906.9	2049.4	1862.2
45°	1712.5	1729.1	1806.0	1863.2	1915.2	1936.0	1975.5	2002.6	2128.4	2290.6	2084.7
47.5°	1792.5	1804.0	1874.7	1965.1	2035.8	2073.3	2134.6	2204.3	2357.1	2546.4	2283.3
50°	1901.7	1902.7	1955.8	2073.3	2178.3	2218.8	2324.9	2415.3	2606.7	2772.0	2426.8
52.5°	2022.3	2016.1	2057.7	2206.4	2339.4	2394.5	2519.3	2645.1	2837.5	2935.2	2491.2
55°	2136.7	2139.8	2165.8	2347.8	2542.2	2595.2	2753.3	2881.2	3048.6	3035.0	2526.6
57.5°	2268.7	2267.7	2301.0	2502.7	2779.3	2840.6	3005.9	3110.9	3176.4	3106.8	2532.8
60°	2393.5	2390.4	2441.3	2687.8	3031.9	3122.4	3271.1	3266.9	3304.3	3152.5	2527.6
62.5°	2504.8	2512.0	2601.5	2903.0	3314.7	3412.5	3487.3	3435.3	3445.7	3205.6	2463.2
65°	2639.9	2653.4	2798.0	3164.0	3664.1	3710.9	3740.0	3655.8	3551.8	3162.9	2267.7
67.5°	2810.4	2851.0	3054.8	3548.7	4028.0	4060.2	4061.3	3788.9	3547.6	2947.7	1906.9
70°	2878.0	2920.7	3245.1	3853.3	4334.7	4375.3	4248.4	3768.1	3267.9	2308.2	1287.2
71°	2831.2	2869.7	3239.9	3882.4	4398.2	4430.4	4231.8	3631.9	2963.3	1901.7	997.1
72.5°	2493.3	2593.1	3040.2	3699.4	4284.8	4285.9	3962.5	3310.6	2357.1	1187.4	501.2
75°	1346.5	1467.1	2228.2	2815.6	3305.4	3331.4	3048.6	2298.9	1140.6	307.8	121.7
77.5°	444.0	500.1	999.2	1461.9	2073.3	2113.8	1864.3	1021.0	359.8	104.0	63.4
80°	278.7	284.9	337.9	614.5	922.3	956.6	767.3	413.8	162.2	57.2	43.7
82.5°	46.8	56.1	159.1	180.9	325.4	257.9	174.7	211.1	75.9	26.0	37.4
85°	0.0	0.0	1.0	1.0	5.2	1.0	1.0	42.6	4.2	4.2	19.8
87.5°	0.0	0.0	1.0	1.0	1.0	1.0	1.0	1.0	0.0	0.0	0.0
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°	1106.3	1106.3	1106.3	1106.3	1106.3	1106.3	1106.3	1106.3	1106.3	1106.3	1106.3
2.5°	1093.8	1085.5	1068.9	1051.2	1029.4	1010.6	1004.4	990.9	984.6	979.4	979.4
5°	1063.7	1049.1	1013.8	977.4	942.0	904.6	870.3	838.0	822.4	800.6	811.0
7.5°	1038.7	1013.8	963.9	906.7	833.9	760.1	702.9	653.0	611.4	597.9	588.5
10°	1021.0	989.8	917.1	829.7	723.7	618.7	530.3	448.1	400.3	371.2	371.2
12.5°	1019.0	979.4	884.8	750.7	597.9	455.4	346.2	268.3	229.8	212.1	211.1
15°	1026.2	978.4	855.7	679.0	482.4	316.1	216.3	182.0	172.6	170.5	170.5
17.5°	1032.5	977.4	821.4	597.9	355.6	208.0	171.6	165.3	163.2	162.2	162.2
20°	1038.7	972.2	781.9	506.4	251.6	169.5	160.1	157.0	156.0	154.9	154.9
22.5°	1047.0	967.0	741.3	402.4	186.1	158.0	152.8	149.7	148.7	148.7	148.7
25°	1058.5	963.9	691.4	304.6	160.1	149.7	144.5	142.4	142.4	141.4	141.4
27.5°	1080.3	967.0	637.4	218.3	149.7	141.4	138.3	136.2	136.2	135.2	135.2
30°	1110.5	976.3	569.8	170.5	141.4	133.1	130.0	128.9	127.9	127.9	127.9
32.5°	1153.1	990.9	496.0	145.6	131.0	124.8	121.7	120.6	120.6	120.6	119.6
35°	1218.6	1021.0	405.5	133.1	121.7	115.4	112.3	112.3	112.3	111.3	112.3
37.5°	1318.4	1069.9	314.0	122.7	111.3	106.1	104.0	102.9	102.9	102.9	102.9
40°	1444.2	1148.9	228.7	113.3	101.9	96.7	94.6	93.6	92.5	92.5	92.5
42.5°	1606.4	1236.3	166.4	102.9	93.6	88.4	86.3	84.2	82.1	81.1	81.1
45°	1774.9	1340.2	130.0	94.6	85.3	81.1	79.0	75.9	72.8	69.7	69.7
47.5°	1938.1	1420.3	111.3	85.3	78.0	73.8	71.7	67.6	62.4	59.3	59.3
50°	2041.0	1445.3	99.8	76.9	70.7	67.6	64.5	59.3	52.0	48.9	48.9
52.5°	2073.3	1399.5	89.4	69.7	64.5	61.3	57.2	49.9	42.6	38.5	38.5
55°	2085.7	1311.1	79.0	64.5	58.2	54.1	48.9	41.6	34.3	30.2	30.2
57.5°	2070.1	1186.4	70.7	58.2	52.0	47.8	41.6	33.3	26.0	22.9	22.9
60°	2017.1	1005.4	63.4	52.0	45.7	40.6	34.3	26.0	19.8	15.6	16.6
62.5°	1873.6	777.7	55.1	43.7	39.5	34.3	27.0	19.8	12.5	10.4	10.4
65°	1644.9	538.6	46.8	36.4	33.3	28.1	20.8	13.5	7.3	6.2	6.2
67.5°	1336.1	348.3	36.4	30.2	28.1	22.9	15.6	8.3	4.2	4.2	3.1
70°	839.1	172.6	29.1	22.9	22.9	17.7	11.4	5.2	3.1	3.1	3.1
71°	593.7	117.5	26.0	20.8	20.8	16.6	10.4	4.2	3.1	3.1	3.1
72.5°	268.3	73.8	21.8	18.7	17.7	13.5	9.4	4.2	4.2	4.2	4.2
75°	84.2	40.6	15.6	14.6	14.6	11.4	8.3	5.2	5.2	5.2	5.2
77.5°	56.1	31.2	10.4	9.4	11.4	11.4	8.3	6.2	6.2	6.2	6.2
80°	45.7	16.6	6.2	6.2	8.3	10.4	8.3	6.2	7.3	6.2	6.2
82.5°	44.7	8.3	2.1	3.1	5.2	6.2	6.2	5.2	6.2	6.2	6.2
85°	18.7	2.1	1.0	2.1	2.1	3.1	3.1	4.2	5.2	5.2	5.2
87.5°	0.0	0.0	0.0	0.0	1.0	1.0	2.1	2.1	3.1	4.2	4.2
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)