

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: P401921

Luminaire Tested: **ENV-SA1F-827-U-SL4-HSS**

Issue Date: 5/20/2020

Test Information

Test Method: LM-79-08
Report Number: P401921
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-827-U-SL4-HSS
Description: ENTRI LED LUMINAIRE
(1) 80 CRI, 2700K, 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: 4696 lumens
Efficiency: N/A
Efficacy: 71.0 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

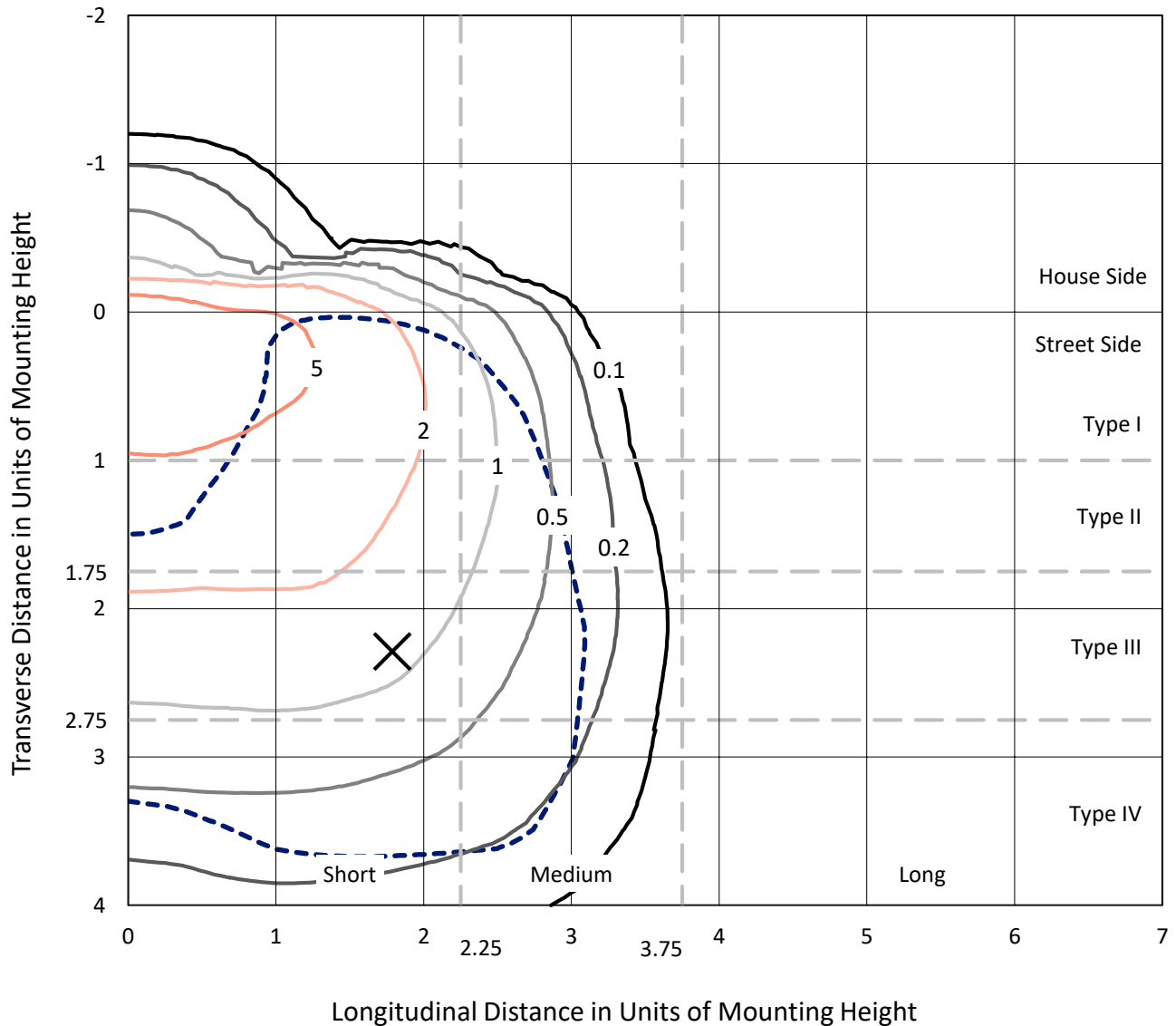
Input Watts (W): 66.1
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

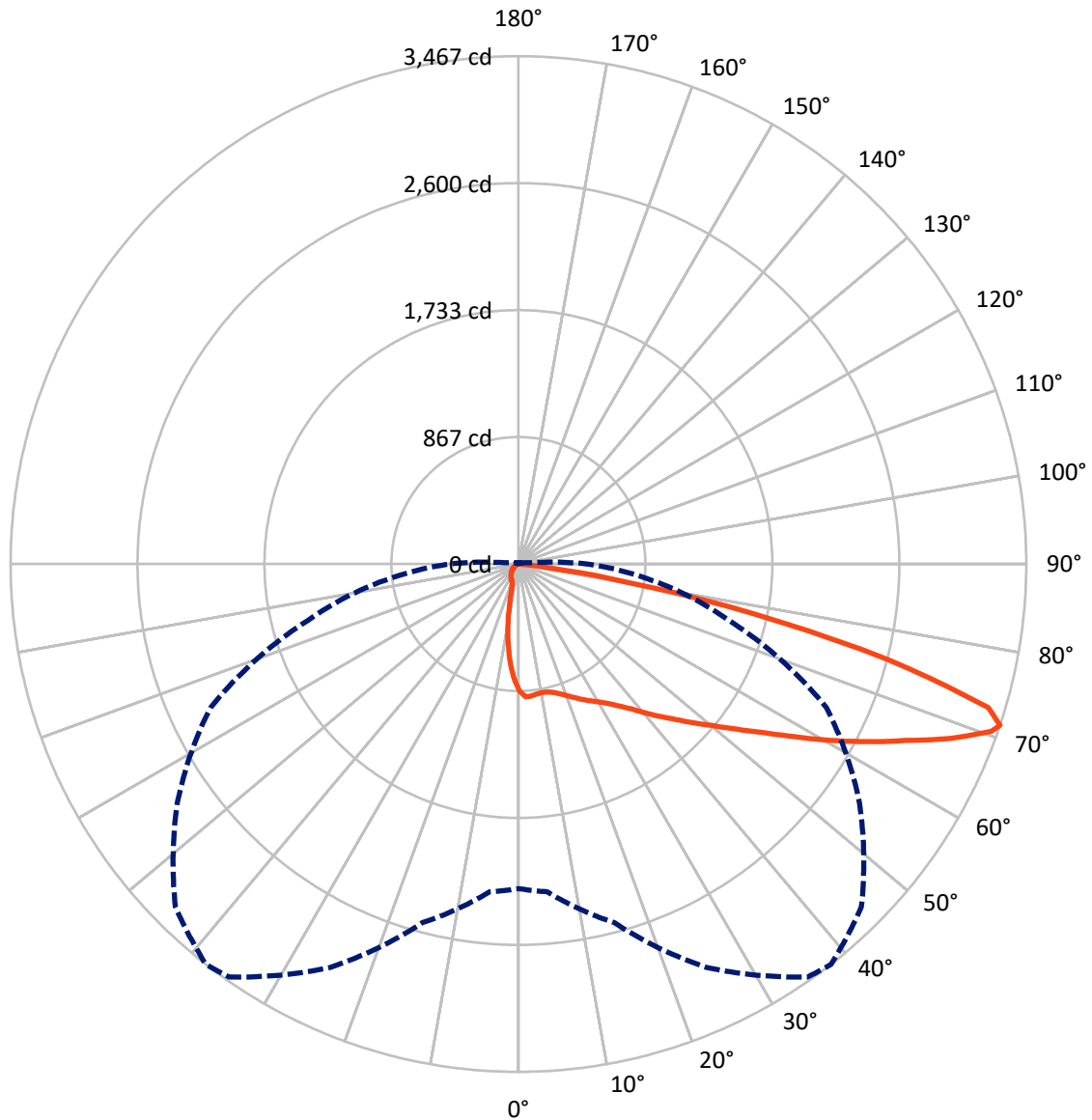
✕ Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 8.9 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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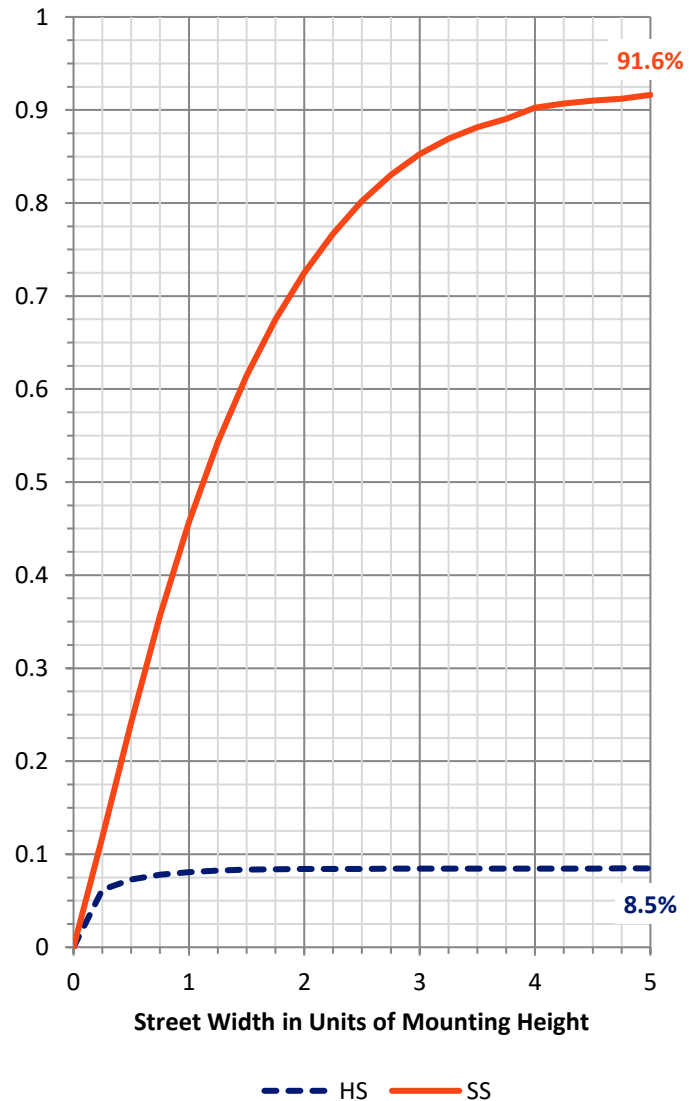
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	401.1	0.0	401.1
	% Fixture	8.5	0.0	8.5
Street Side	Lumens	4294.9	0.0	4294.9
	% Fixture	91.5	0.0	91.5
Total	Lumens	4696.0	0.0	4696.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	73.1	1.6
10°-20°	177.0	3.8
20°-30°	283.9	6.0
30°-40°	431.9	9.2
40°-50°	673.1	14.3
50°-60°	984.2	21.0
60°-70°	1262.4	26.9
70°-80°	771.6	16.4
80°-90°	38.7	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°	4696.0	100.0
0°-180°	4696.0	100.0



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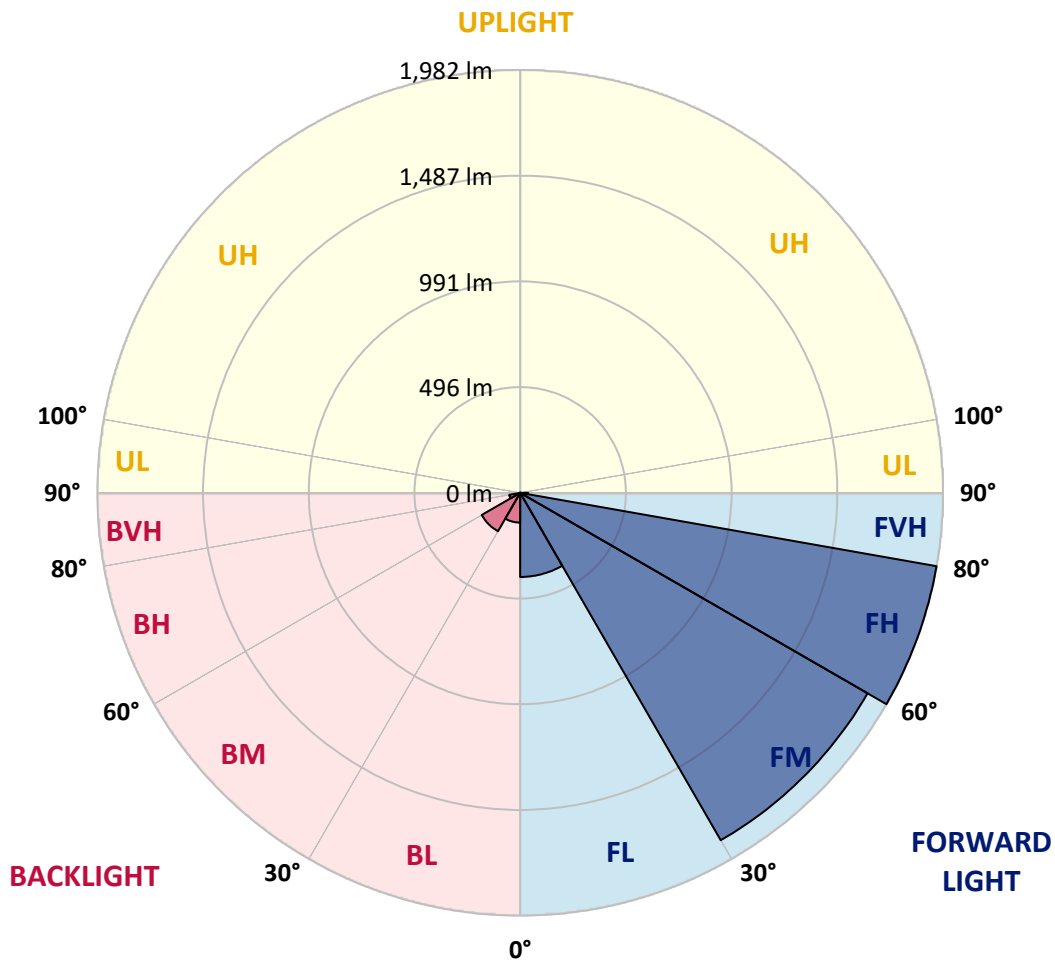
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	394.6	8.4			
FM	(30°-60°)	1880.8	40.1			
FH	(60°-80°)	1982.5	42.2			G2/5000
FVH	(80°-90°)	37.0	0.8			G1/100
BL	(0°-30°)	139.5	3.0	B1/500		
BM	(30°-60°)	208.3	4.4	B0/220		
BH	(60°-80°)	51.6	1.1	B0/110		G0/110
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 IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	38°	45°	55°	65°	75°	85°
0°	865.7	865.7	865.7	865.7	865.7	865.7	865.7	865.7	865.7	865.7	865.7
2.5°	917.0	914.5	917.0	914.5	909.7	907.2	904.0	895.0	886.9	877.1	862.5
5°	918.6	917.0	917.0	913.7	908.0	905.6	902.3	893.4	882.8	868.2	846.2
7.5°	909.7	908.8	907.2	904.0	897.4	895.8	893.4	882.8	872.2	856.8	829.9
10°	895.0	896.6	895.8	895.8	893.4	891.8	890.1	877.9	866.5	848.6	820.2
12.5°	881.2	882.8	886.9	893.4	895.8	896.6	896.6	884.4	870.6	851.1	821.8
15°	872.2	875.5	886.9	899.9	907.2	909.7	912.1	899.1	882.8	861.6	830.7
17.5°	869.8	874.7	896.6	917.0	930.8	932.4	932.4	916.2	899.1	874.7	841.3
20°	877.9	884.4	912.9	941.4	958.5	960.1	956.8	935.7	915.3	888.5	850.3
22.5°	902.3	908.0	940.6	973.9	990.2	991.8	984.5	955.2	933.2	911.3	862.5
25°	944.6	947.9	982.9	1014.6	1023.6	1026.0	1013.8	978.8	953.6	933.2	879.5
27.5°	1000.8	1002.4	1034.1	1057.7	1059.4	1058.6	1045.5	1008.9	983.7	966.6	905.6
30°	1059.4	1061.8	1087.8	1103.3	1096.8	1093.5	1082.1	1043.1	1020.3	1007.3	943.0
32.5°	1113.9	1116.3	1144.8	1152.9	1138.3	1135.8	1127.7	1086.2	1066.7	1073.2	996.7
35°	1167.6	1167.6	1200.1	1204.2	1191.2	1191.2	1191.2	1141.5	1138.3	1160.3	1071.6
37.5°	1215.6	1223.7	1257.9	1256.3	1253.8	1255.5	1260.3	1222.9	1234.3	1271.7	1170.0
40°	1256.3	1266.8	1312.4	1316.5	1327.1	1336.0	1343.3	1323.8	1350.6	1411.7	1296.1
42.5°	1292.9	1305.1	1363.7	1382.4	1411.7	1423.9	1437.7	1432.8	1492.2	1603.7	1457.2
45°	1340.1	1353.1	1413.3	1458.0	1498.7	1515.0	1545.9	1567.1	1665.5	1792.5	1631.4
47.5°	1402.7	1411.7	1467.0	1537.8	1593.1	1622.4	1670.4	1724.9	1844.5	1992.6	1786.8
50°	1488.2	1489.0	1530.5	1622.4	1704.6	1736.3	1819.3	1890.1	2039.8	2169.2	1899.0
52.5°	1582.5	1577.7	1610.2	1726.6	1830.7	1873.8	1971.5	2069.9	2220.4	2296.9	1949.5
55°	1672.0	1674.5	1694.8	1837.2	1989.4	2030.9	2154.5	2254.6	2385.6	2375.0	1977.2
57.5°	1775.4	1774.6	1800.6	1958.4	2174.9	2222.9	2352.2	2434.4	2485.7	2431.2	1982.0
60°	1873.0	1870.6	1910.4	2103.3	2372.6	2443.4	2559.7	2556.5	2585.8	2467.0	1978.0
62.5°	1960.1	1965.8	2035.7	2271.7	2593.9	2670.4	2729.0	2688.3	2696.4	2508.5	1927.5
65°	2065.8	2076.4	2189.5	2475.9	2867.3	2903.9	2926.7	2860.8	2779.4	2475.1	1774.6
67.5°	2199.3	2231.0	2390.5	2777.0	3152.1	3177.3	3178.1	2964.9	2776.2	2306.7	1492.2
70°	2252.2	2285.5	2539.4	3015.4	3392.1	3423.8	3324.5	2948.6	2557.3	1806.3	1007.3
71°	2215.6	2245.7	2535.3	3038.1	3441.7	3466.9	3311.5	2842.1	2318.9	1488.2	780.3
72.5°	1951.1	2029.2	2379.1	2894.9	3353.0	3353.8	3100.8	2590.6	1844.5	929.2	392.2
75°	1053.7	1148.1	1743.6	2203.3	2586.6	2606.9	2385.6	1799.0	892.6	240.8	95.2
77.5°	347.4	391.4	781.9	1144.0	1622.4	1654.1	1458.9	799.0	281.5	81.4	49.6
80°	218.1	222.9	264.4	480.9	721.7	748.6	600.5	323.8	126.9	44.8	34.2
82.5°	36.6	43.9	124.5	141.6	254.7	201.8	136.7	165.2	59.4	20.3	29.3
85°	0.0	0.0	0.8	0.8	4.1	0.8	0.8	33.4	3.3	3.3	15.5
87.5°	0.0	0.0	0.8	0.8	0.8	0.8	0.8	0.8	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°	865.7	865.7	865.7	865.7	865.7	865.7	865.7	865.7	865.7	865.7	865.7
2.5°	856.0	849.4	836.4	822.6	805.5	790.9	786.0	775.4	770.5	766.5	766.5
5°	832.4	821.0	793.3	764.8	737.2	707.9	681.0	655.8	643.6	626.5	634.6
7.5°	812.8	793.3	754.2	709.5	652.5	594.8	550.0	511.0	478.4	467.8	460.5
10°	799.0	774.6	717.6	649.3	566.3	484.1	415.0	350.7	313.3	290.5	290.5
12.5°	797.4	766.5	692.4	587.5	467.8	356.4	270.9	209.9	179.8	166.0	165.2
15°	803.1	765.6	669.6	531.3	377.5	247.3	169.2	142.4	135.1	133.4	133.4
17.5°	807.9	764.8	642.8	467.8	278.3	162.7	134.3	129.4	127.7	126.9	126.9
20°	812.8	760.8	611.9	396.2	196.9	132.6	125.3	122.9	122.0	121.2	121.2
22.5°	819.3	756.7	580.1	314.9	145.6	123.7	119.6	117.2	116.4	116.4	116.4
25°	828.3	754.2	541.1	238.4	125.3	117.2	113.1	111.5	111.5	110.7	110.7
27.5°	845.4	756.7	498.8	170.9	117.2	110.7	108.2	106.6	106.6	105.8	105.8
30°	869.0	764.0	445.9	133.4	110.7	104.1	101.7	100.9	100.1	100.1	100.1
32.5°	902.3	775.4	388.1	113.9	102.5	97.6	95.2	94.4	94.4	94.4	93.6
35°	953.6	799.0	317.3	104.1	95.2	90.3	87.9	87.9	87.9	87.1	87.9
37.5°	1031.7	837.2	245.7	96.0	87.1	83.0	81.4	80.6	80.6	80.6	80.6
40°	1130.2	899.1	179.0	88.7	79.7	75.7	74.0	73.2	72.4	72.4	72.4
42.5°	1257.1	967.4	130.2	80.6	73.2	69.2	67.5	65.9	64.3	63.5	63.5
45°	1388.9	1048.8	101.7	74.0	66.7	63.5	61.8	59.4	57.0	54.5	54.5
47.5°	1516.6	1111.4	87.1	66.7	61.0	57.8	56.1	52.9	48.8	46.4	46.4
50°	1597.2	1131.0	78.1	60.2	55.3	52.9	50.4	46.4	40.7	38.2	38.2
52.5°	1622.4	1095.2	70.0	54.5	50.4	48.0	44.8	39.1	33.4	30.1	30.1
55°	1632.2	1026.0	61.8	50.4	45.6	42.3	38.2	32.5	26.9	23.6	23.6
57.5°	1620.0	928.4	55.3	45.6	40.7	37.4	32.5	26.0	20.3	17.9	17.9
60°	1578.5	786.8	49.6	40.7	35.8	31.7	26.9	20.3	15.5	12.2	13.0
62.5°	1466.2	608.6	43.1	34.2	30.9	26.9	21.2	15.5	9.8	8.1	8.1
65°	1287.2	421.5	36.6	28.5	26.0	22.0	16.3	10.6	5.7	4.9	4.9
67.5°	1045.5	272.6	28.5	23.6	22.0	17.9	12.2	6.5	3.3	3.3	2.4
70°	656.6	135.1	22.8	17.9	17.9	13.8	9.0	4.1	2.4	2.4	2.4
71°	464.6	91.9	20.3	16.3	16.3	13.0	8.1	3.3	2.4	2.4	2.4
72.5°	209.9	57.8	17.1	14.6	13.8	10.6	7.3	3.3	3.3	3.3	3.3
75°	65.9	31.7	12.2	11.4	11.4	9.0	6.5	4.1	4.1	4.1	4.1
77.5°	43.9	24.4	8.1	7.3	9.0	9.0	6.5	4.9	4.9	4.9	4.9
80°	35.8	13.0	4.9	4.9	6.5	8.1	6.5	4.9	5.7	4.9	4.9
82.5°	35.0	6.5	1.6	2.4	4.1	4.9	4.9	4.1	4.9	4.9	4.9
85°	14.6	1.6	0.8	1.6	1.6	2.4	2.4	3.3	4.1	4.1	4.1
87.5°	0.0	0.0	0.0	0.0	0.8	0.8	1.6	1.6	2.4	3.3	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

(END OF REPORT)