

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: P140595

Luminaire Tested: **ECM-F02-LED-E1-5XQ**

Issue Date: 03/03/2020

Test Information

Test Method: LM-79-08
Report Number: P140595
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (P33688)
Test Lab: INNOVATION CENTER-P3
Issue Date: 03/03/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: ECM-F02-LED-E1-5XQ
Description: EPIC CLASSICAL MEDIUM DECORATIVE LED LUMINAIRE
(2) LIGHTBARS WITH AccuLED OPTICS - TYPE 5 SQUARE EXTRA WIDE
Light Source: (14) 4000K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4922.6 lumens
Efficiency: N/A
Efficacy: 89.5 lumens/watt
Luminous Opening: Rectangular (W 0.33' x L: 1' x H: 0')
IES Classification: Type V - Short - Non-Cutoff
BUG Rating: B3 - U0 - G2

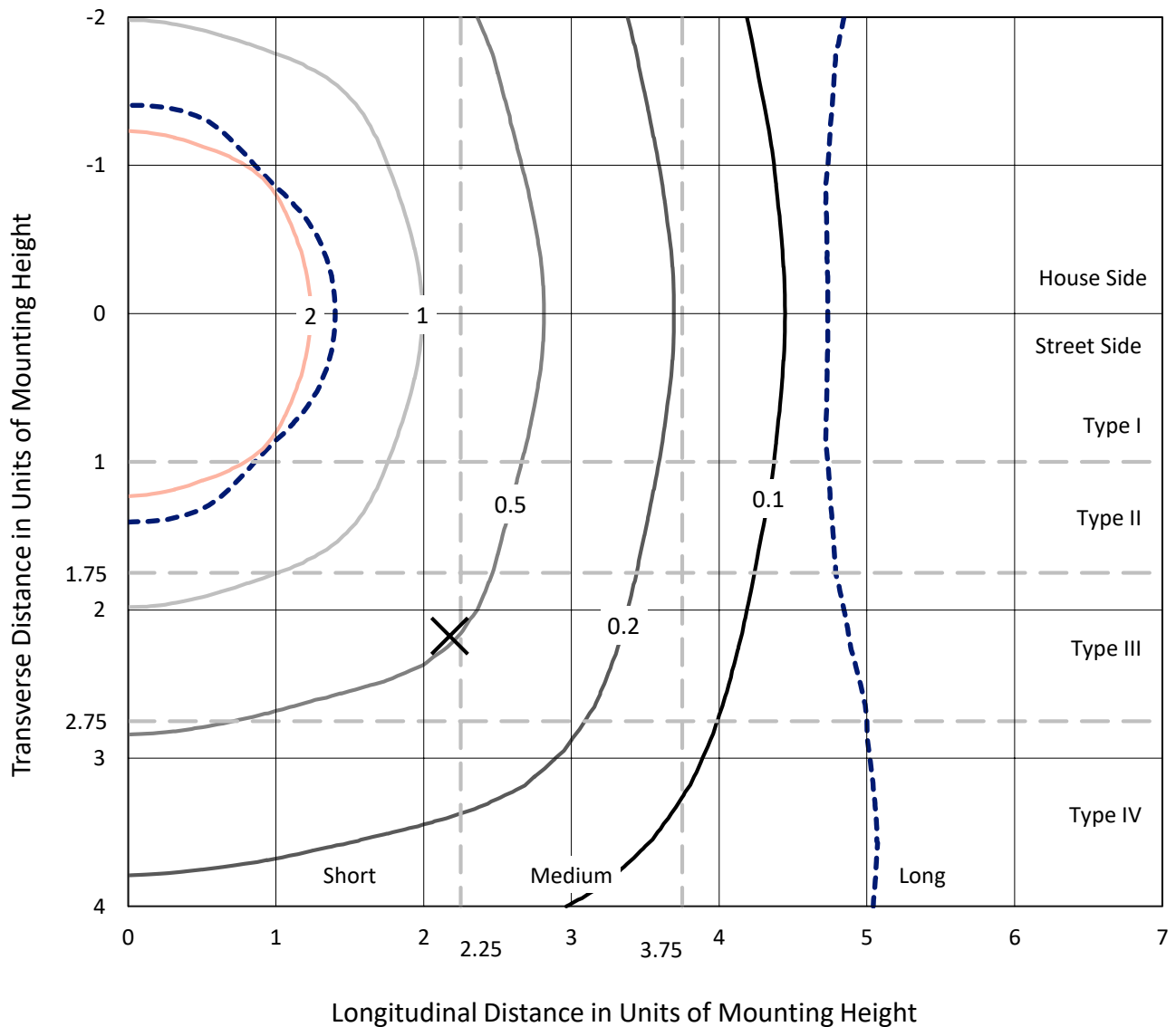
Input Watts (W): 55
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

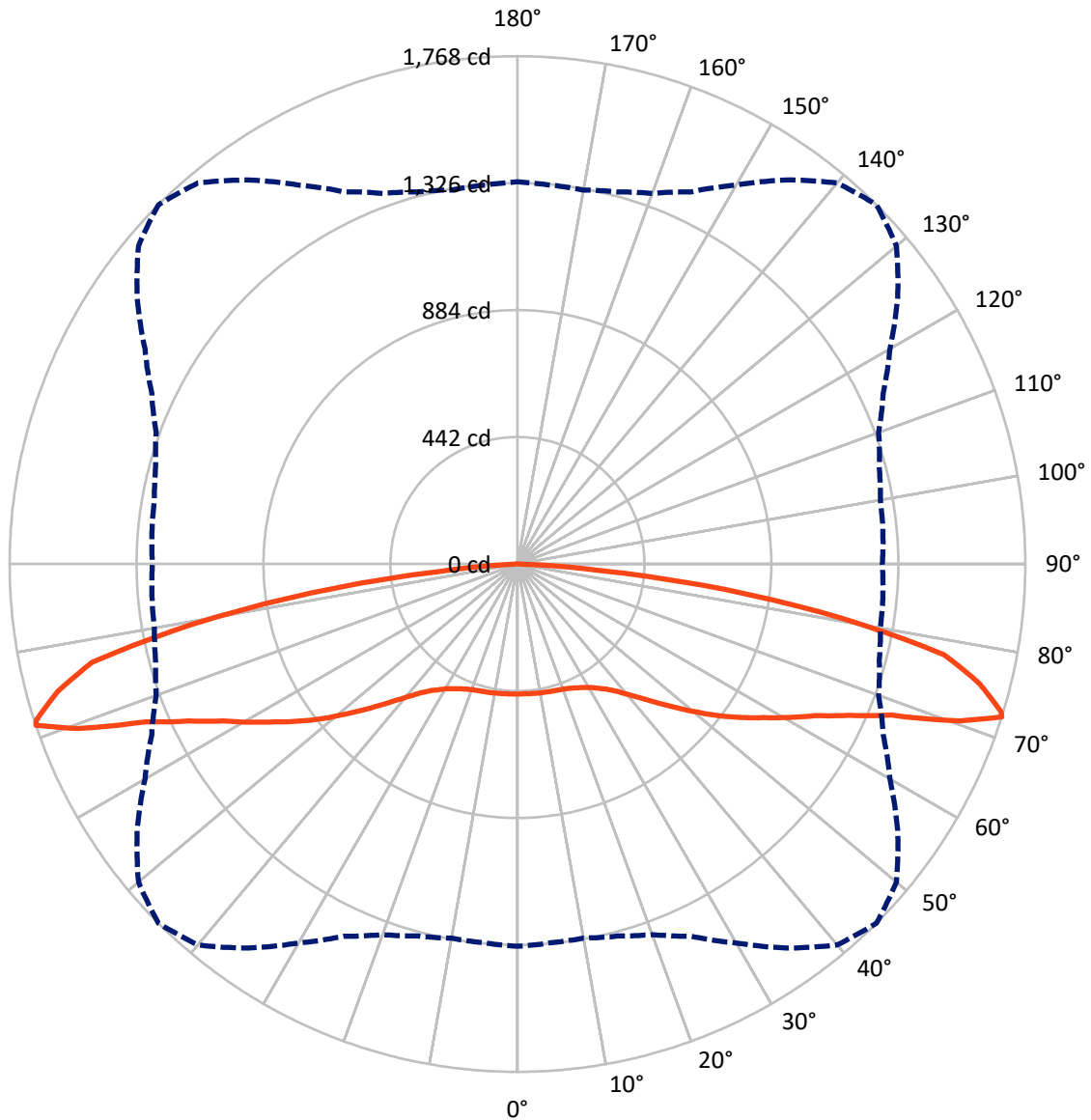


Based on 10 foot mounting height. Maximum calculated value = 4.5 fc
 Type V - Short - Non-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 45-Deg Lateral - - - Horizontal Cone Through 72-Deg Vertical

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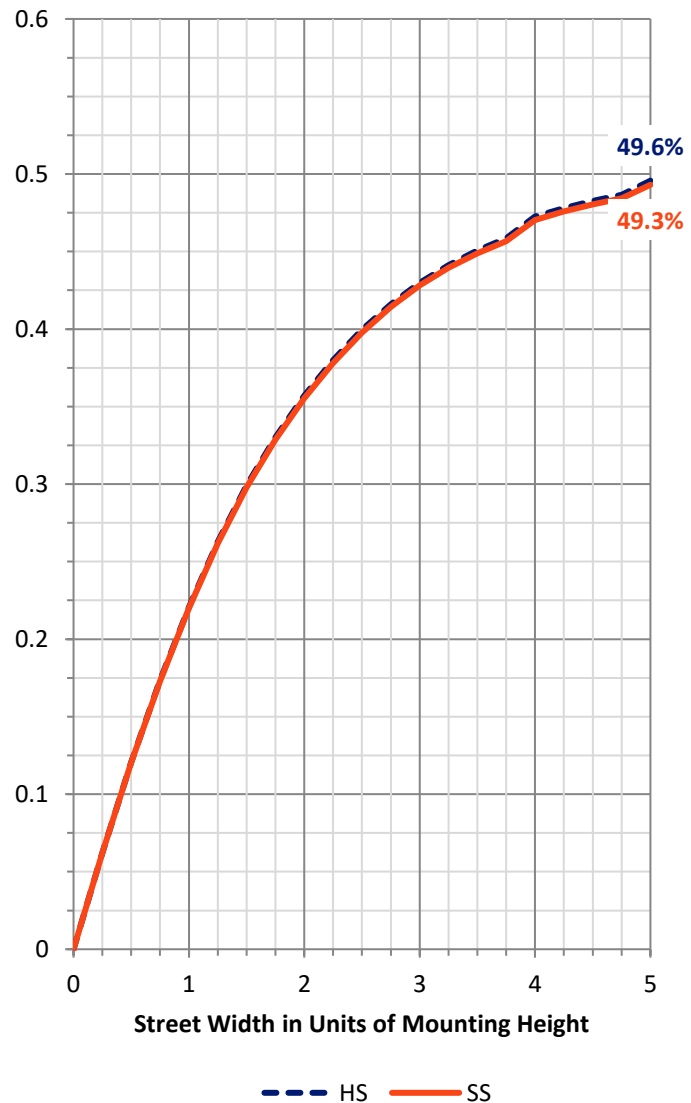
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2461.3	0.0	2461.3
	% Fixture	50.0	0.0	50.0
Street Side	Lumens	2461.3	0.0	2461.3
	% Fixture	50.0	0.0	50.0
Total	Lumens	4922.6	0.0	4922.6
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	43.4	0.9
10°-20°	130.6	2.7
20°-30°	221.0	4.5
30°-40°	336.2	6.8
40°-50°	532.3	10.8
50°-60°	815.7	16.6
60°-70°	1197.5	24.3
70°-80°	1358.4	27.6
80°-90°	287.8	5.8
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°	4922.6	100.0
0°-180°	4922.6	100.0



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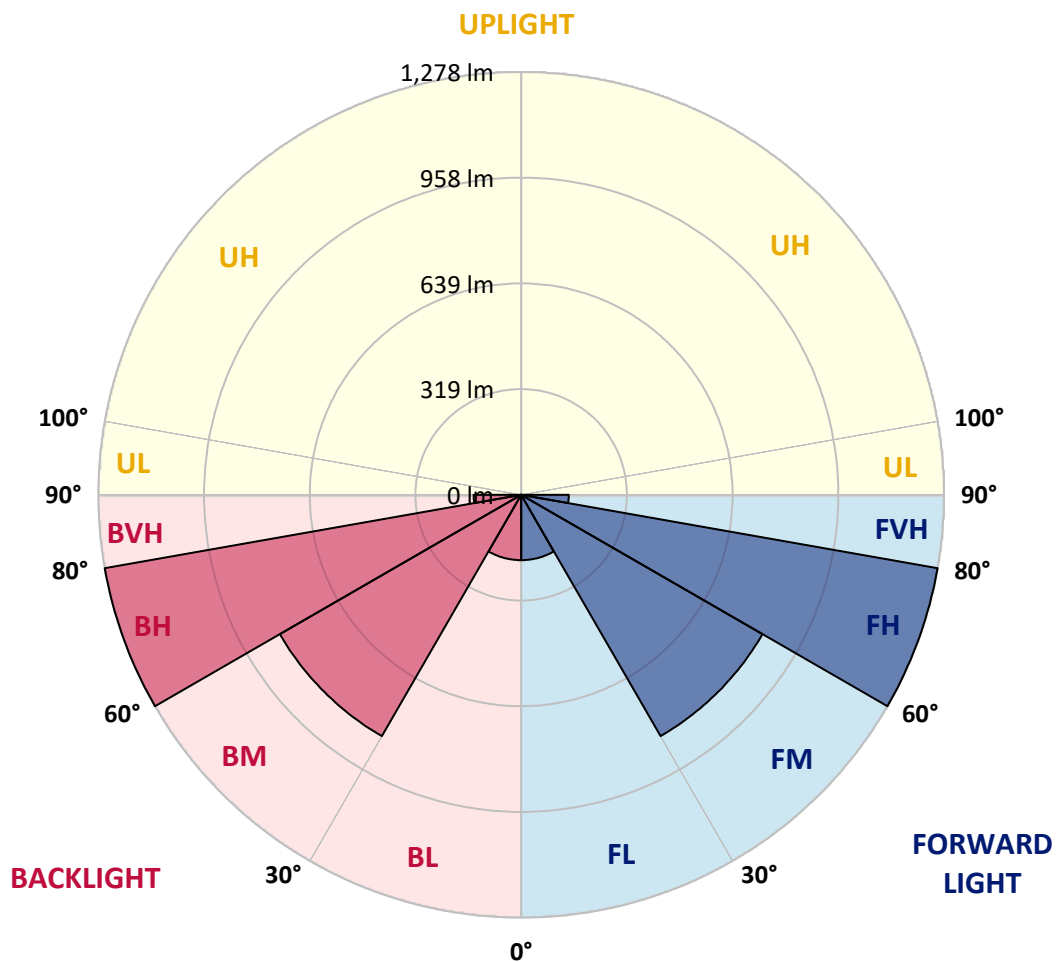
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	197.5	4.0			
FM (30°-60°)	842.0	17.1			
FH (60°-80°)	1277.9	26.0			G1/1800
FVH (80°-90°)	143.9	2.9			G2/225
BL (0°-30°)	197.5	4.0	B1/500		
BM (30°-60°)	842.0	17.1	B1/1000		
BH (60°-80°)	1277.9	26.0	B3/2500		G1/1800
BVH (80°-90°)	143.9	2.9			G2/225
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G2

Type V Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	452.4	452.4	452.4	452.4	452.4	452.4	452.4	452.4	452.4	452.4	452.4
2.5°	454.0	454.6	454.0	453.5	453.5	452.9	452.9	452.9	453.5	452.4	452.4
5°	455.1	455.7	455.1	454.0	454.0	454.0	453.5	453.5	454.0	453.5	453.5
7.5°	456.8	457.3	456.8	455.7	455.7	455.1	454.6	454.6	455.7	454.6	454.6
10°	458.4	459.5	458.4	457.3	457.3	456.8	456.2	456.2	456.8	455.7	455.7
12.5°	461.2	461.2	460.6	460.1	460.1	459.5	459.0	458.4	457.9	457.3	456.8
15°	463.4	463.9	462.8	462.3	461.7	461.2	460.6	460.6	459.5	459.0	459.0
17.5°	466.1	466.7	465.6	464.5	464.5	463.4	462.8	462.8	461.7	461.2	460.6
20°	468.9	469.4	468.3	467.8	467.2	466.7	465.6	466.1	465.6	464.5	464.5
22.5°	472.2	472.2	471.6	471.1	471.1	470.5	470.0	471.1	470.0	470.0	469.4
25°	475.5	476.1	475.5	475.5	476.1	476.1	476.6	477.7	477.7	477.2	476.6
27.5°	482.7	482.7	482.7	482.7	484.3	484.3	484.9	486.5	487.1	487.1	487.1
30°	492.0	492.6	492.0	492.0	493.7	494.2	495.9	497.5	498.6	498.6	499.2
32.5°	505.8	505.2	505.8	506.9	508.0	509.1	510.7	513.5	515.1	515.7	515.7
35°	523.4	523.9	523.4	523.9	526.1	527.8	529.4	532.7	533.8	534.9	535.5
37.5°	549.2	550.9	549.8	549.8	552.6	553.7	555.9	558.6	560.8	561.9	561.4
40°	586.7	586.1	585.0	585.6	586.1	587.2	589.4	594.9	597.7	597.7	597.7
42.5°	629.6	630.2	628.5	627.9	628.5	629.6	632.9	637.3	641.7	640.6	641.2
45°	678.6	674.7	675.8	674.7	675.3	679.1	684.6	686.8	691.2	691.2	692.3
47.5°	726.5	724.8	724.3	723.7	725.4	729.2	735.8	743.0	746.8	749.0	750.7
50°	780.4	777.6	777.1	777.6	778.2	779.3	792.0	799.1	808.5	810.1	809.6
52.5°	832.7	830.5	829.4	829.4	831.6	835.4	848.6	860.2	870.7	877.3	874.5
55°	889.4	889.4	886.1	885.0	888.3	892.1	910.3	923.5	938.3	943.3	935.6
57.5°	947.7	947.2	942.2	940.5	943.3	953.2	968.6	989.0	1004.9	1009.3	1004.9
60°	1004.9	1004.9	1002.2	1001.1	1003.8	1015.9	1034.7	1057.2	1076.5	1084.7	1077.6
62.5°	1070.4	1070.4	1063.3	1066.6	1070.4	1079.8	1103.5	1132.6	1158.5	1162.9	1156.3
65°	1144.7	1148.0	1142.5	1141.4	1146.4	1164.0	1191.0	1227.8	1258.1	1269.7	1259.8
67.5°	1258.1	1253.1	1246.5	1243.8	1251.5	1268.0	1301.0	1349.5	1394.0	1405.0	1393.5
70°	1375.9	1370.9	1368.7	1377.5	1394.0	1428.7	1479.3	1547.0	1609.2	1635.6	1611.4
72°	1330.7	1324.1	1322.5	1341.2	1373.1	1429.8	1523.4	1632.3	1731.4	1768.3	1722.6
72.5°	1307.6	1302.1	1301.6	1319.2	1353.9	1411.1	1503.0	1615.3	1721.5	1761.7	1712.7
75°	1214.1	1208.6	1214.1	1233.9	1268.6	1330.2	1423.8	1528.9	1624.6	1661.5	1613.6
77.5°	1084.7	1074.8	1079.8	1107.3	1145.8	1213.0	1312.0	1436.4	1528.9	1519.0	1448.0
80°	865.7	843.7	867.4	875.6	919.6	964.8	1060.5	1116.1	1148.0	1149.7	1099.0
82.5°	378.1	386.9	416.6	441.4	472.8	525.0	563.6	623.5	693.4	725.9	686.8
85°	24.8	30.8	49.0	58.3	80.9	98.5	141.4	205.8	248.2	284.0	239.4
87.5°	4.4	6.1	11.0	13.2	14.3	16.0	16.0	22.0	23.1	18.7	20.9
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):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	452.4	452.4	452.4	452.4	452.4	452.4	452.4	452.4
2.5°	452.4	452.4	452.9	452.4	452.4	452.4	451.8	451.8
5°	452.9	452.9	453.5	453.5	452.9	452.9	452.9	452.9
7.5°	454.6	454.0	454.6	454.6	454.0	454.0	453.5	454.0
10°	455.1	455.1	455.7	455.7	455.1	455.1	455.1	455.1
12.5°	456.8	456.8	456.8	457.3	456.8	456.8	457.3	456.8
15°	458.4	457.9	457.9	457.9	457.9	458.4	458.4	459.0
17.5°	460.1	460.1	459.5	460.1	460.1	460.6	460.6	460.6
20°	463.4	462.8	461.7	462.8	462.8	462.8	462.8	463.4
22.5°	468.3	467.2	466.1	466.1	465.6	466.1	465.6	465.6
25°	475.5	473.9	472.2	471.6	471.1	470.5	470.0	470.5
27.5°	486.0	483.8	481.6	480.5	479.9	478.8	478.3	478.3
30°	497.5	495.9	492.6	491.5	489.8	488.2	488.2	487.6
32.5°	515.1	512.9	509.1	507.4	504.7	503.0	502.5	502.5
35°	533.3	530.5	528.9	526.7	523.4	521.7	521.2	521.2
37.5°	560.8	557.5	555.3	552.6	552.0	549.8	549.8	549.8
40°	596.6	593.8	591.1	588.9	587.2	585.6	583.4	583.4
42.5°	640.6	636.2	634.6	631.8	629.6	627.9	626.8	626.8
45°	689.0	685.2	683.0	679.1	678.6	677.5	675.3	675.3
47.5°	743.5	738.0	733.6	732.5	729.8	727.0	725.9	726.5
50°	803.0	793.6	787.6	787.6	784.2	780.4	780.9	780.4
52.5°	864.0	853.6	845.9	840.4	836.5	836.0	836.5	836.0
55°	925.7	914.7	905.3	899.3	895.4	891.6	891.0	891.0
57.5°	989.5	975.8	960.9	955.4	951.6	949.4	949.4	949.9
60°	1061.6	1039.1	1020.3	1013.2	1010.4	1011.5	1011.0	1011.5
62.5°	1134.8	1109.0	1086.9	1078.7	1074.8	1074.3	1078.7	1080.3
65°	1227.3	1195.4	1170.6	1155.2	1155.2	1153.5	1158.5	1156.3
67.5°	1347.8	1302.7	1272.4	1247.6	1248.2	1249.8	1257.0	1256.4
70°	1553.1	1473.3	1417.2	1374.8	1358.3	1347.3	1345.1	1345.1
72°	1616.4	1497.5	1405.0	1338.5	1304.3	1283.4	1277.4	1270.8
72.5°	1599.9	1477.7	1384.1	1314.8	1279.6	1258.7	1249.3	1241.0
75°	1495.9	1359.4	1257.5	1184.9	1145.8	1120.5	1115.6	1111.7
77.5°	1319.7	1198.7	1093.5	1018.1	979.1	946.6	933.4	932.3
80°	1017.6	908.6	827.7	768.8	733.6	709.4	710.5	702.8
82.5°	600.4	508.5	439.2	360.5	308.7	279.0	260.3	258.1
85°	176.7	120.0	76.5	55.0	39.6	29.7	22.0	19.8
87.5°	16.0	12.7	10.5	8.8	8.3	7.2	4.4	3.3
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)