

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: P676613

Luminaire Tested: **CCW-SA-2B-830-U-T4FT-HSS**

Issue Date: 04/25/2023



**Test Information**

Test Method: LM-79-08  
Report Number: P676613  
Test Lab: INNOVATION CENTER(G1)  
Issue Date: 04/25/2023  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: INVUE  
Catalog Number: CCW-SA-2B-830-U-T4FT-HSS  
Description: INVUE CLEAR CURVE Wall Pack MOUNT Light Square Luminaire @450mA w/  
T4FT distribution lens and House Side Shield  
Light Source: (32) 3000K CCT, 80 CRI LEDs  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

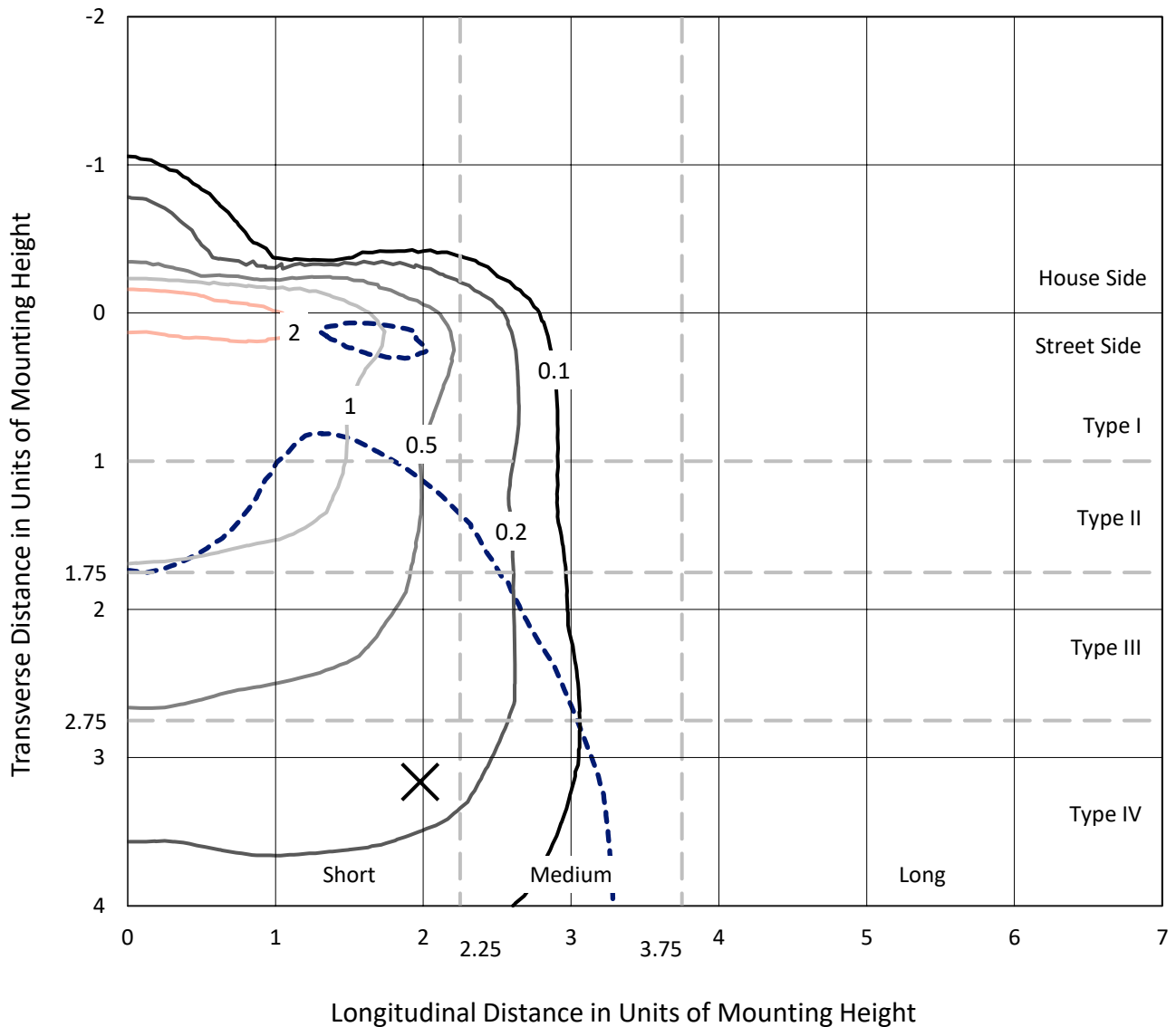
Lumens per Lamp: N/A  
Luminaire Lumens: 3940.4 lumens  
Efficiency: N/A  
Efficacy: 85.7 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')  
IES Classification: Type IV - Short  
BUG Rating: B1 - U0 - G2

Input Watts (W): 46  
Input Voltage (V): 120  
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

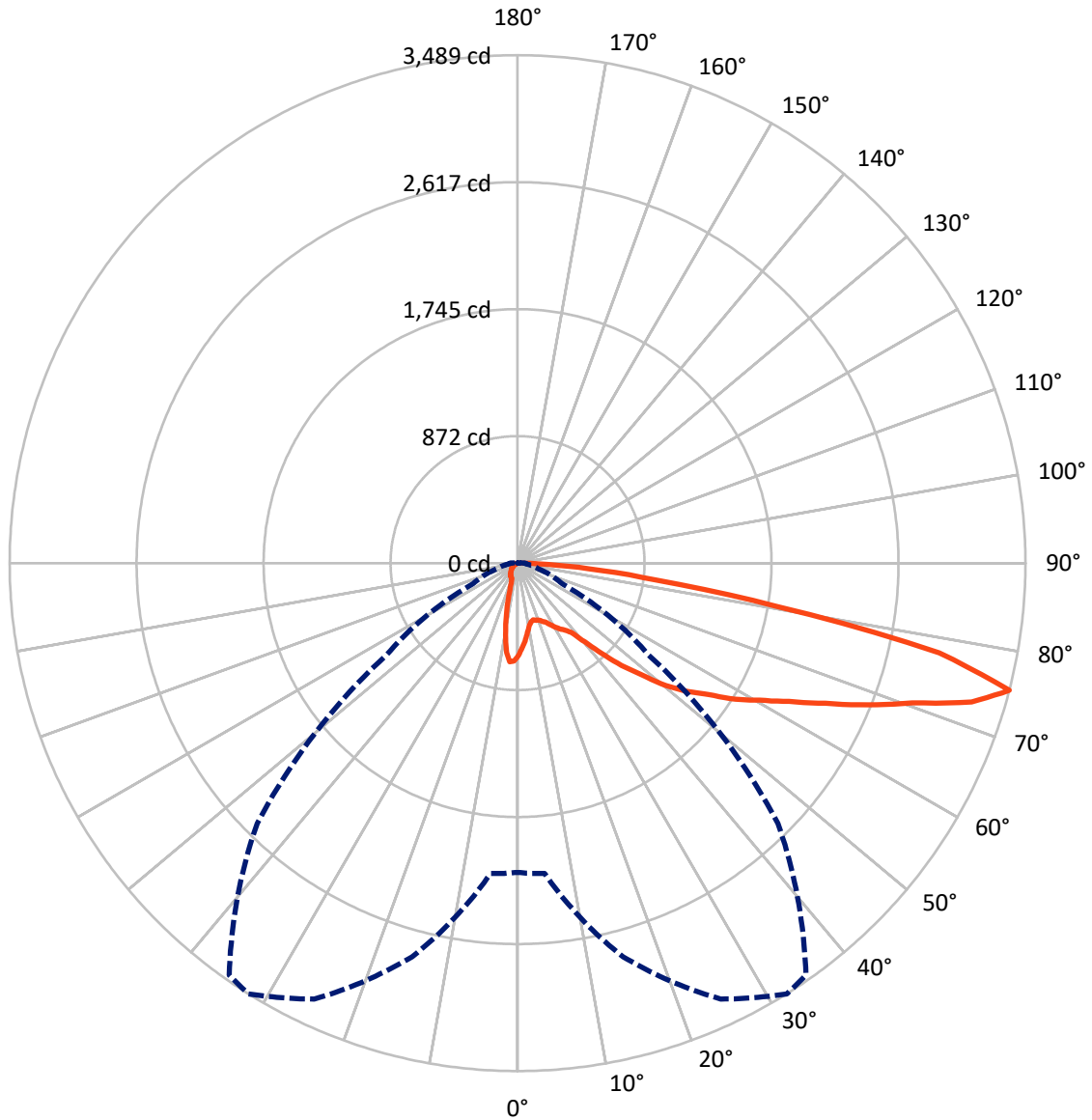
× Max cd  
 - - - 1/2 Max cd



Based on 15 foot mounting height. Maximum calculated value = 2.8 fc  
 Type IV - Short - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 32-Deg Lateral      - - - Horizontal Cone Through 75-Deg Vertical

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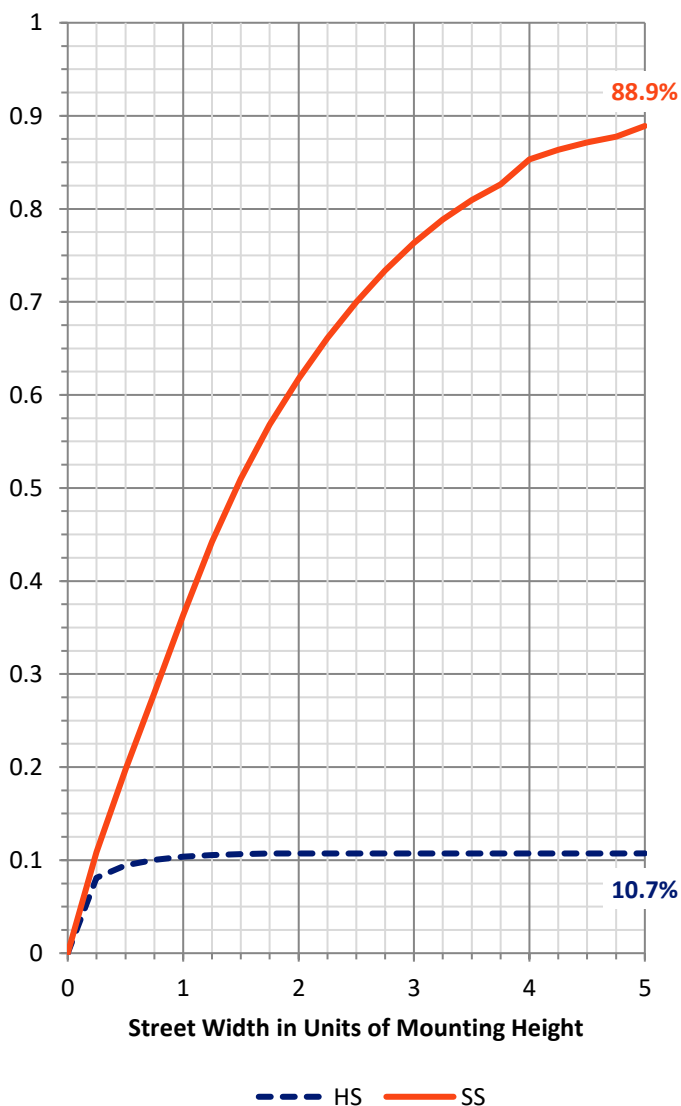
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	425.7	0.0	425.7
	% Fixture	10.8	0.0	10.8
<b>Street Side</b>	Lumens	3514.7	0.0	3514.7
	% Fixture	89.2	0.0	89.2
<b>Total</b>	Lumens	3940.4	0.0	3940.4
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	55.9	1.4
10°-20°	126.9	3.2
20°-30°	190.1	4.8
30°-40°	291.7	7.4
40°-50°	510.2	12.9
50°-60°	797.5	20.2
60°-70°	1031.1	26.2
70°-80°	839.8	21.3
80°-90°	97.2	2.5
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°	3940.4	100.0
0°-180°	3940.4	100.0



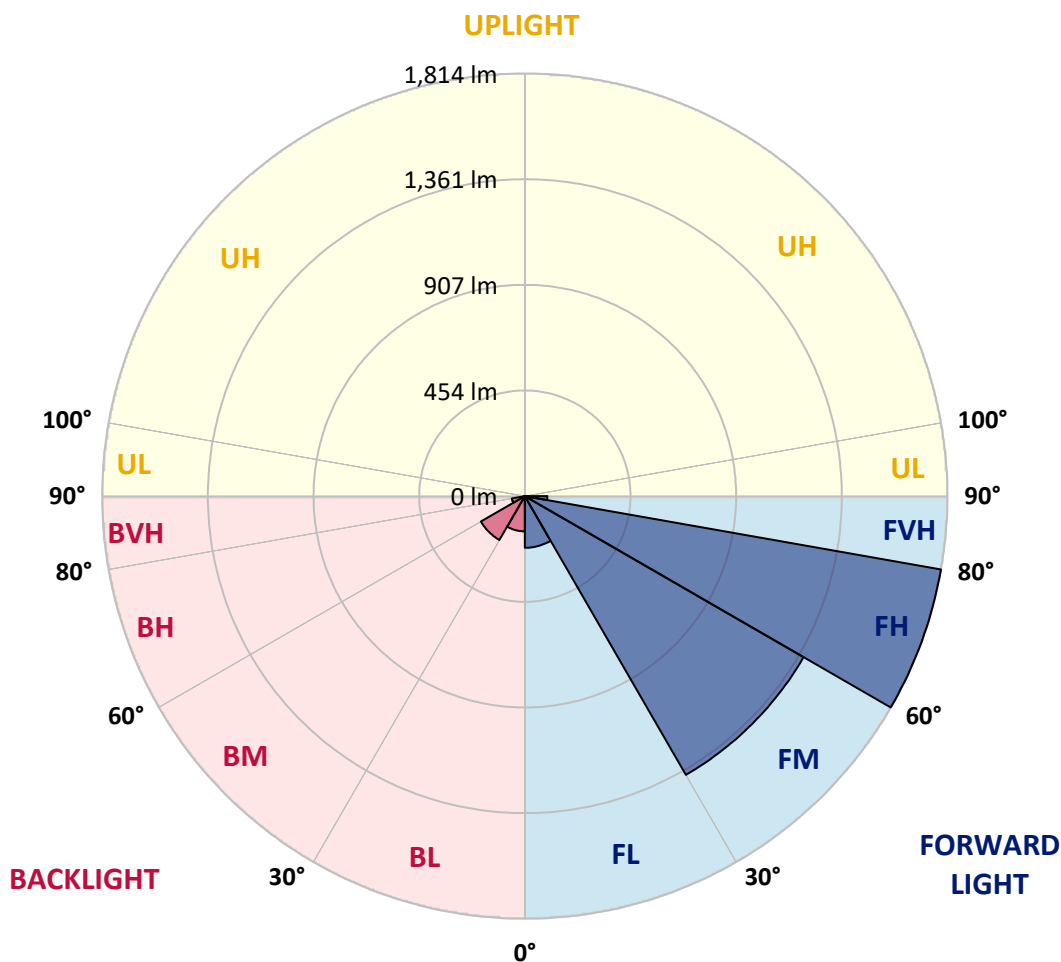
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	221.7	5.6			
FM (30°-60°)	1381.7	35.1			
FH (60°-80°)	1814.2	46.0			G2/5000
FVH (80°-90°)	97.1	2.5			G1/100
BL (0°-30°)	151.2	3.8	B1/500		
BM (30°-60°)	217.8	5.5	B0/220		
BH (60°-80°)	56.6	1.4	B0/110		G0/110
BVH (80°-90°)	0.1	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°	32°	35°	45°	55°	65°	75°	85°
0°	636.3	636.3	636.3	636.3	636.3	636.3	636.3	636.3	636.3	636.3	636.3
2.5°	570.6	578.7	577.7	582.7	583.7	586.8	593.8	593.8	614.0	628.2	637.3
5°	519.1	514.1	516.1	522.1	537.3	536.3	553.4	562.5	586.8	607.0	628.2
7.5°	455.5	454.5	458.5	472.6	483.8	492.8	511.0	534.3	566.6	596.9	634.2
10°	415.1	413.1	421.1	425.2	438.3	444.4	472.6	509.0	547.4	590.8	634.2
12.5°	406.0	398.9	403.0	402.0	414.1	417.1	444.4	488.8	535.3	588.8	642.3
15°	411.0	406.0	402.0	402.0	405.0	407.0	436.3	475.7	528.2	591.8	660.5
17.5°	427.2	424.2	412.0	399.9	413.1	413.1	431.2	472.6	529.2	600.9	682.7
20°	446.4	443.4	422.1	408.0	417.1	427.2	446.4	479.7	532.2	608.0	717.0
22.5°	467.6	467.6	438.3	422.1	434.3	435.3	469.6	501.9	544.4	626.2	739.3
25°	493.9	491.8	463.6	445.4	449.4	460.5	491.8	526.2	566.6	651.4	780.7
27.5°	528.2	525.2	491.8	473.7	478.7	490.8	526.2	560.5	586.8	661.5	816.0
30°	556.5	553.4	526.2	498.9	510.0	521.1	562.5	592.8	612.0	680.7	856.4
32.5°	562.5	557.5	539.3	527.2	539.3	560.5	592.8	624.1	653.4	729.2	933.2
35°	632.2	614.0	566.6	547.4	565.6	572.6	626.2	681.7	710.0	767.5	1019.0
37.5°	765.5	748.4	685.7	632.2	607.0	615.0	684.7	753.4	780.7	839.2	1112.9
40°	929.1	900.9	834.2	762.5	711.0	700.9	746.3	847.3	873.6	929.1	1236.1
42.5°	1116.0	1088.7	985.7	900.9	848.3	835.2	842.3	956.4	978.6	1011.9	1316.9
45°	1250.3	1236.1	1120.0	1044.3	1002.9	988.7	971.5	1075.6	1103.8	1115.0	1434.1
47.5°	1328.1	1318.0	1253.3	1201.8	1146.3	1131.1	1142.2	1241.2	1222.0	1231.1	1546.2
50°	1432.1	1405.8	1318.0	1334.1	1323.0	1319.0	1338.2	1381.6	1353.3	1327.0	1668.4
52.5°	1515.9	1469.4	1407.8	1447.2	1464.4	1479.5	1547.2	1579.5	1453.3	1412.9	1747.2
55°	1567.4	1523.0	1539.1	1575.5	1593.7	1663.3	1743.1	1718.9	1518.9	1481.6	1852.2
57.5°	1613.9	1616.9	1660.3	1671.4	1764.3	1776.5	1930.0	1851.2	1565.4	1544.2	1893.6
60°	1726.0	1714.9	1750.2	1821.9	1910.8	1978.4	2124.9	1940.1	1588.6	1576.5	1882.5
62.5°	1927.9	1859.3	1871.4	1962.3	2092.6	2166.3	2237.0	1980.5	1582.6	1581.5	1849.2
65°	2184.5	2105.7	2069.3	2154.2	2322.8	2426.9	2363.2	2025.9	1542.2	1570.4	1725.0
67.5°	2397.6	2398.6	2330.9	2378.4	2598.5	2620.8	2482.4	2016.8	1474.5	1482.6	1422.0
70°	2643.0	2676.3	2616.7	2765.2	2875.3	2889.4	2618.7	1942.1	1329.1	1118.0	817.0
72.5°	2705.6	2722.8	2908.6	3136.8	3261.1	3265.1	2753.1	1692.6	874.6	493.9	253.5
75°	2124.9	2141.0	2799.5	3304.5	3489.3	3453.9	2528.9	1098.8	340.3	144.4	60.6
77.5°	1185.7	1190.7	1738.1	2671.3	2960.1	2817.7	1771.4	428.2	137.3	82.8	28.3
80°	324.2	380.7	644.3	1316.9	1807.8	1774.4	843.3	139.4	88.9	64.6	13.1
82.5°	77.8	83.8	207.0	582.7	955.4	996.8	251.5	70.7	61.6	53.5	7.1
85°	28.3	31.3	63.6	283.8	490.8	450.4	75.7	35.3	45.4	41.4	3.0
87.5°	10.1	10.1	20.2	92.9	143.4	108.1	25.2	12.1	23.2	25.2	1.0
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°	636.3	636.3	636.3	636.3	636.3	636.3	636.3	636.3	636.3	636.3	636.3
2.5°	638.3	638.3	652.4	664.5	668.6	673.6	668.6	679.7	678.7	673.6	675.6
5°	639.3	657.5	669.6	677.7	681.7	680.7	682.7	670.6	663.5	658.5	653.4
7.5°	644.3	661.5	683.7	681.7	670.6	647.4	629.2	596.9	565.6	564.5	559.5
10°	661.5	676.7	689.8	681.7	641.3	570.6	513.0	469.6	430.2	412.0	414.1
12.5°	673.6	701.9	695.8	654.4	570.6	477.7	392.9	329.2	293.9	260.6	260.6
15°	698.9	709.0	706.9	615.0	483.8	372.7	269.7	205.0	167.6	152.5	150.5
17.5°	723.1	734.2	699.9	555.5	397.9	250.5	163.6	127.3	122.2	120.2	121.2
20°	753.4	754.4	693.8	495.9	298.9	158.6	117.2	114.1	115.1	114.1	114.1
22.5°	785.7	792.8	672.6	412.0	199.0	115.1	109.1	110.1	110.1	110.1	113.1
25°	828.1	817.0	639.3	332.3	130.3	106.0	106.0	107.1	107.1	107.1	108.1
27.5°	856.4	841.3	596.9	239.4	102.0	100.0	102.0	102.0	104.0	104.0	104.0
30°	915.0	875.6	543.3	154.5	91.9	94.9	97.0	99.0	100.0	102.0	103.0
32.5°	960.4	905.9	476.7	103.0	83.8	85.8	90.9	94.9	99.0	98.0	98.0
35°	1043.3	955.4	415.1	81.8	76.8	76.8	81.8	88.9	94.9	97.0	97.0
37.5°	1138.2	995.8	329.2	74.7	70.7	70.7	73.7	81.8	89.9	93.9	91.9
40°	1217.0	1042.2	243.4	69.7	65.6	65.6	67.7	73.7	82.8	89.9	90.9
42.5°	1272.5	1076.6	164.6	64.6	61.6	60.6	63.6	66.7	73.7	83.8	85.8
45°	1323.0	1094.8	102.0	59.6	57.6	57.6	57.6	60.6	65.6	74.7	76.8
47.5°	1412.9	1115.0	73.7	55.5	52.5	53.5	54.5	55.5	59.6	61.6	62.6
50°	1488.6	1130.1	60.6	51.5	49.5	50.5	50.5	50.5	52.5	49.5	49.5
52.5°	1546.2	1115.0	51.5	47.5	45.4	46.5	45.4	45.4	43.4	39.4	39.4
55°	1588.6	1087.7	41.4	43.4	43.4	43.4	41.4	38.4	34.3	31.3	31.3
57.5°	1599.7	1041.2	32.3	36.4	39.4	39.4	35.3	31.3	26.3	23.2	22.2
60°	1582.6	940.2	24.2	26.3	30.3	31.3	28.3	23.2	18.2	15.1	15.1
62.5°	1520.9	860.5	19.2	17.2	22.2	23.2	20.2	15.1	10.1	7.1	6.1
65°	1403.8	737.2	14.1	12.1	15.1	16.2	13.1	7.1	3.0	1.0	0.0
67.5°	1126.1	555.5	9.1	8.1	10.1	10.1	6.1	2.0	0.0	0.0	0.0
70°	623.1	312.1	6.1	4.0	5.0	3.0	1.0	0.0	0.0	0.0	0.0
72.5°	179.8	88.9	3.0	2.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0
75°	48.5	21.2	2.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	21.2	8.1	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	9.1	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	5.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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

(END OF REPORT)