

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: P677192

Luminaire Tested: **CCW-SA-2E-830-U-SL4-HSS**

Issue Date: 04/25/2023



Test Information

Test Method: LM-79-08
Report Number: P677192
Test Lab: INNOVATION CENTER(G1)
Issue Date: 04/25/2023
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: CCW-SA-2E-830-U-SL4-HSS
Description: INVUE CLEAR CURVE Wall Pack MOUNT Light Square Luminaire @1050mA w/
SL4 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: 8974.4 lumens
Efficiency: N/A
Efficacy: 84.2 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B1 - U0 - G2

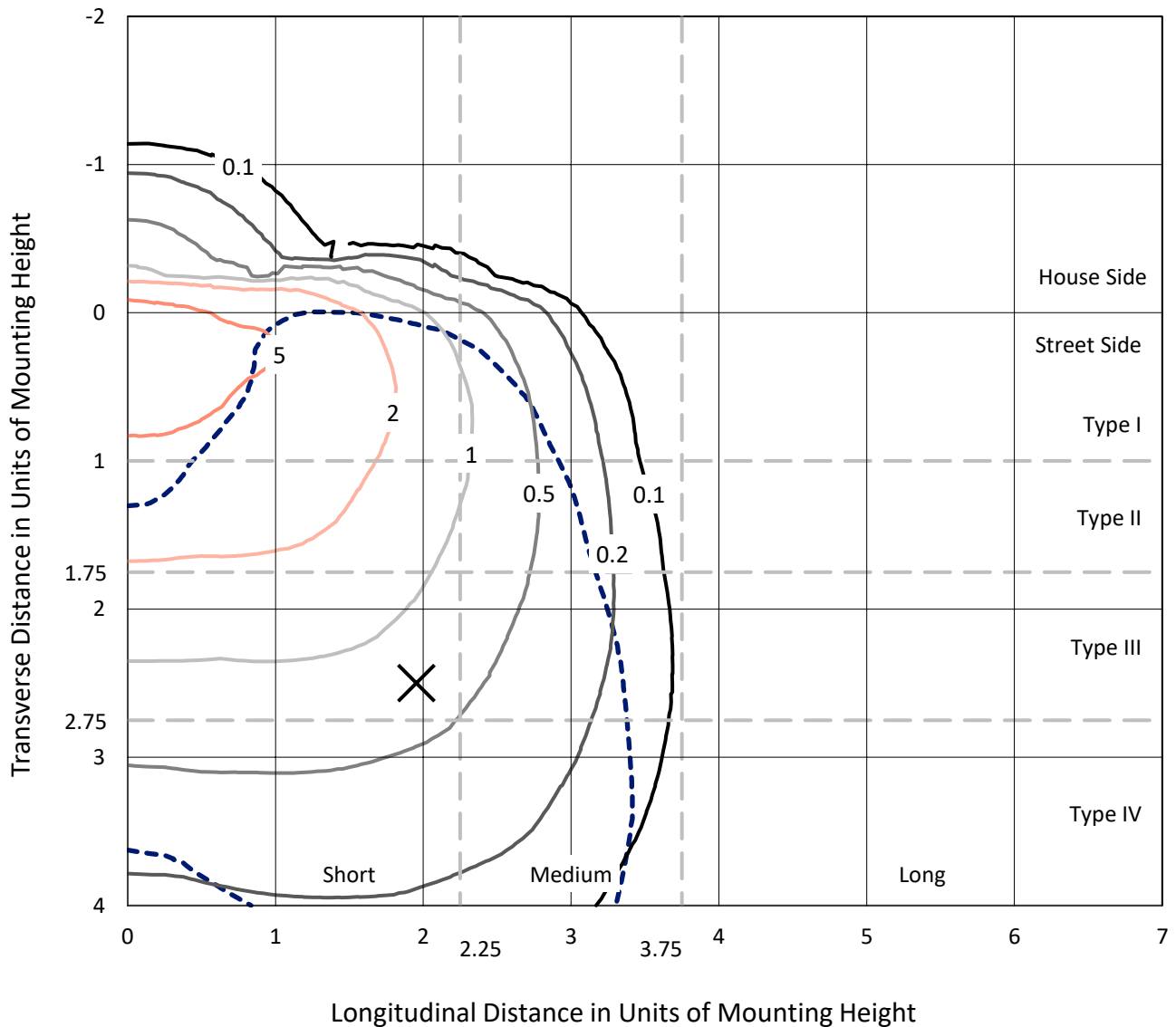
Input Watts (W): 106.6
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



REPORT NUMBER: P677192
 CATALOG NUMBER: CCW-SA-2E-830-U-SL4-HSS

Iso-Footcandle Lines of Horizontal Illumination

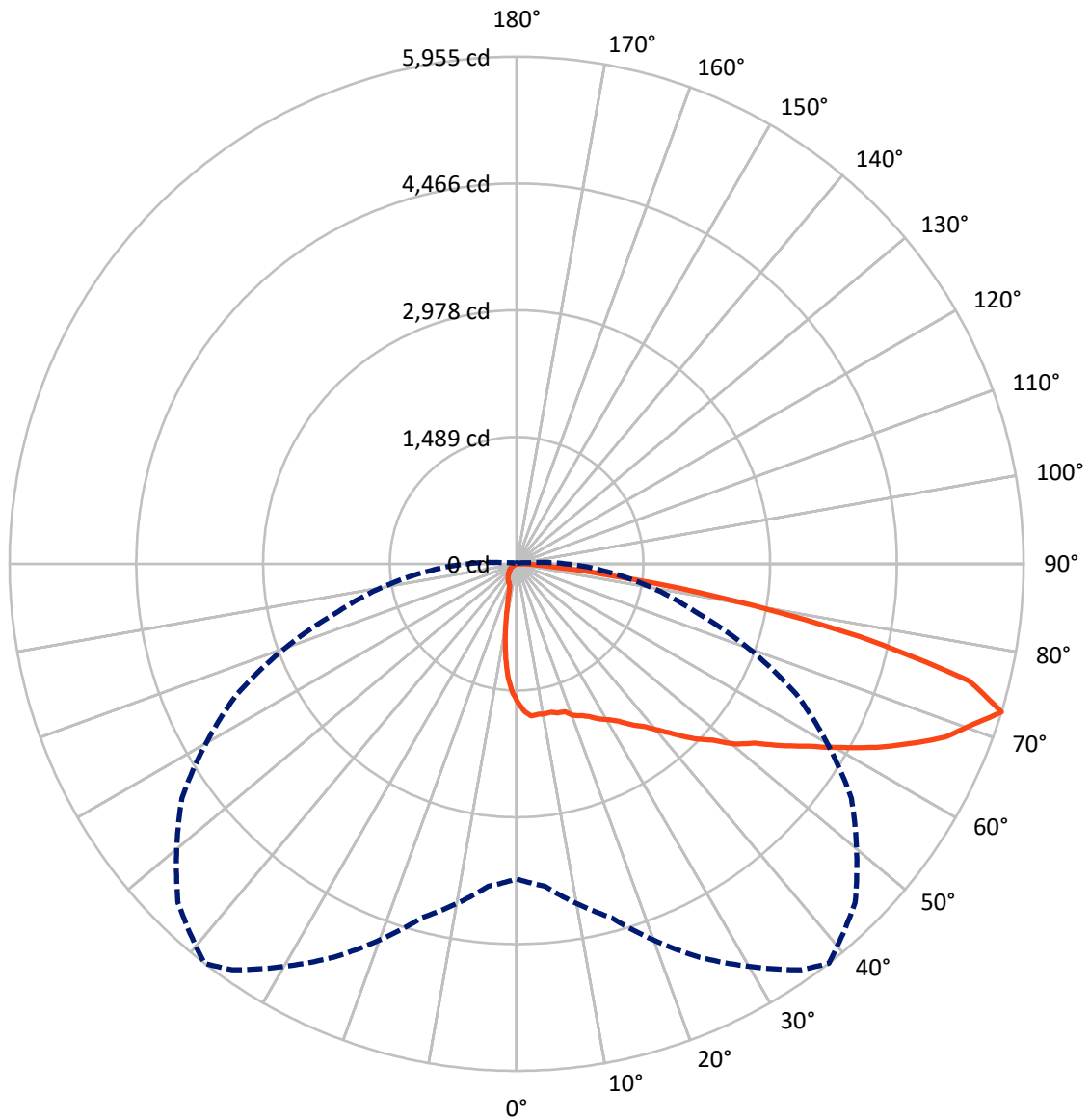
× Max cd
 - - - 1/2 Max cd



Based on 15 foot mounting height. Maximum calculated value = 7.8 fc
 Type IV - Short - N/A

REPORT NUMBER: P677192
CATALOG NUMBER: CCW-SA-2E-830-U-SL4-HSS

Luminous Intensity Polar Plot



— Vertical Plane Through 38-Deg Lateral - - - Horizontal Cone Through 72.5-Deg Vertical

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 CATALOG NUMBER: CCW-SA-2E-830-U-SL4-HSS

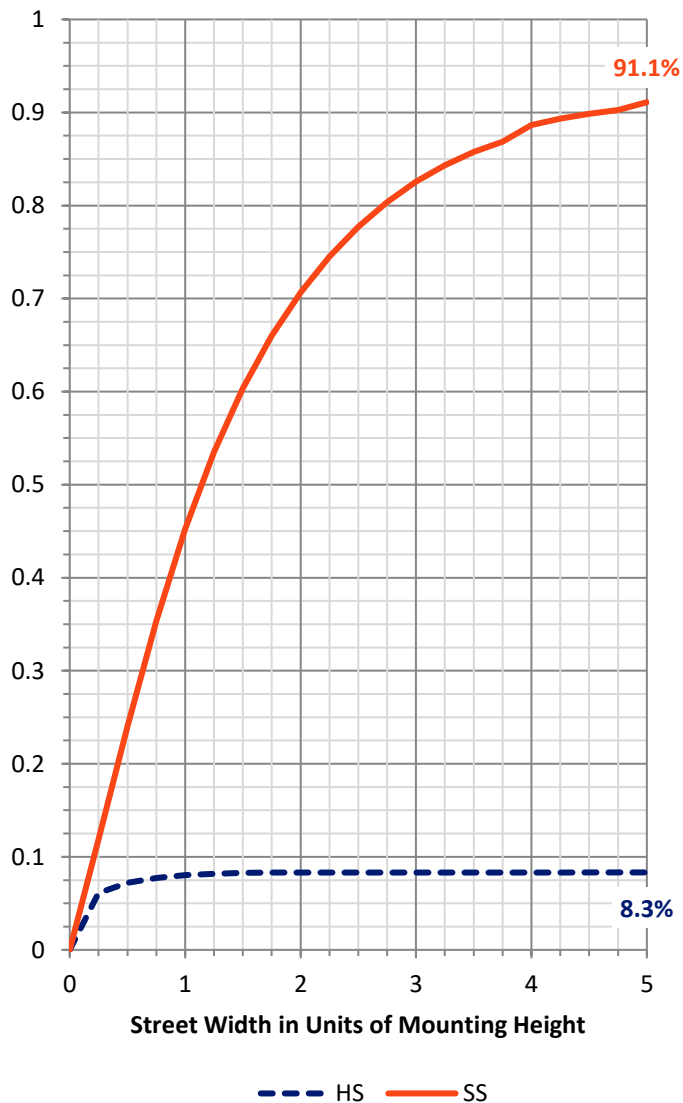
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	751.6	0.0	751.6
	% Fixture	8.4	0.0	8.4
Street Side	Lumens	8222.8	0.0	8222.8
	% Fixture	91.6	0.0	91.6
Total	Lumens	8974.4	0.0	8974.4
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	142.0	1.6
10°-20°	347.8	3.9
20°-30°	557.6	6.2
30°-40°	841.8	9.4
40°-50°	1281.2	14.3
50°-60°	1803.8	20.1
60°-70°	2203.3	24.6
70°-80°	1599.9	17.8
80°-90°	197.0	2.2
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°	8974.4	100.0
0°-180°	8974.4	100.0

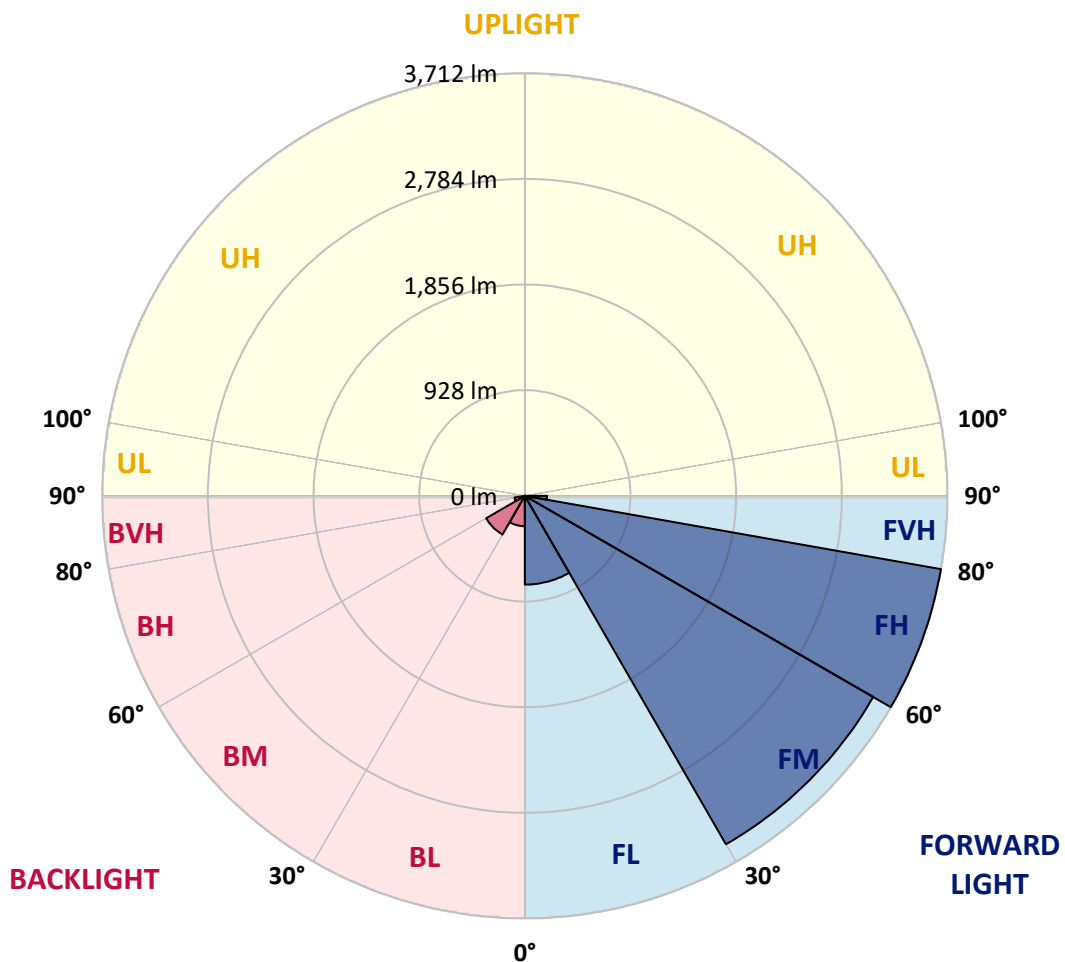


REPORT NUMBER: P677192
 CATALOG NUMBER: CCW-SA-2E-830-U-SL4-HSS

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	780.6	8.7			
FM (30°-60°)	3534.1	39.4			
FH (60°-80°)	3712.1	41.4			G2/5000
FVH (80°-90°)	196.0	2.2			G2/225
BL (0°-30°)	266.8	3.0	B1/500		
BM (30°-60°)	392.6	4.4	B1/1000		
BH (60°-80°)	91.1	1.0	B0/110		G0/110
BVH (80°-90°)	1.0	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





REPORT NUMBER: P677192

CATALOG NUMBER: CCW-SA-2E-830-U-SL4-HSS

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	38°	45°	55°	65°	75°	85°
0°	1622.9	1622.9	1622.9	1622.9	1622.9	1622.9	1622.9	1622.9	1622.9	1622.9	1622.9
2.5°	1782.9	1782.9	1799.8	1782.9	1776.6	1736.6	1738.7	1717.7	1696.6	1667.1	1639.8
5°	1804.0	1818.7	1829.2	1814.5	1791.3	1795.5	1810.3	1770.3	1713.4	1677.7	1616.6
7.5°	1795.5	1827.1	1818.7	1810.3	1795.5	1785.0	1764.0	1747.1	1719.8	1686.1	1614.5
10°	1789.2	1799.8	1801.9	1795.5	1764.0	1793.4	1770.3	1742.9	1709.2	1669.2	1580.8
12.5°	1766.1	1766.1	1785.0	1770.3	1774.5	1789.2	1778.7	1772.4	1736.6	1702.9	1625.0
15°	1740.8	1749.2	1778.7	1801.9	1822.9	1816.6	1810.3	1791.3	1759.8	1721.9	1639.8
17.5°	1747.1	1751.3	1797.6	1839.7	1829.2	1825.0	1858.7	1818.7	1787.1	1745.0	1652.4
20°	1770.3	1782.9	1835.5	1890.3	1900.8	1900.8	1888.2	1865.0	1820.8	1764.0	1675.6
22.5°	1793.4	1797.6	1883.9	1953.4	1963.9	1936.6	1947.1	1879.7	1837.6	1806.1	1698.7
25°	1881.8	1873.4	1966.0	2020.8	2014.5	1987.1	1976.6	1917.6	1900.8	1844.0	1749.2
27.5°	2001.8	1966.0	2056.6	2090.2	2056.6	2065.0	2035.5	1972.4	1936.6	1902.9	1772.4
30°	2075.5	2096.6	2145.0	2178.6	2121.8	2123.9	2109.2	2039.7	1985.0	1993.4	1850.3
32.5°	2189.2	2203.9	2239.7	2254.4	2210.2	2206.0	2191.3	2136.5	2096.6	2088.1	1955.5
35°	2311.3	2338.6	2340.7	2344.9	2304.9	2321.8	2300.7	2222.8	2243.9	2258.6	2081.8
37.5°	2431.2	2406.0	2448.1	2467.0	2422.8	2422.8	2429.1	2376.5	2414.4	2458.6	2260.7
40°	2477.6	2488.1	2561.7	2547.0	2599.6	2568.1	2591.2	2578.6	2610.2	2711.2	2513.3
42.5°	2526.0	2538.6	2637.5	2664.9	2728.0	2738.6	2772.2	2774.4	2867.0	3033.3	2755.4
45°	2618.6	2597.5	2732.3	2799.6	2902.8	2932.2	2972.2	3005.9	3151.1	3346.9	3031.2
47.5°	2702.8	2673.3	2827.0	2961.7	3088.0	3094.3	3203.8	3239.6	3412.2	3635.3	3304.8
50°	2820.7	2831.2	2896.4	3128.0	3256.4	3330.1	3405.8	3523.7	3715.3	3953.1	3502.7
52.5°	2942.7	2932.2	3041.7	3269.0	3471.1	3498.5	3669.0	3801.6	4010.0	4188.9	3591.1
55°	3092.2	3104.8	3146.9	3445.8	3702.6	3767.9	3959.5	4098.4	4325.7	4289.9	3620.5
57.5°	3241.7	3229.0	3323.7	3643.7	3993.1	4041.5	4296.2	4378.3	4532.0	4357.3	3546.9
60°	3389.0	3412.2	3452.2	3866.8	4311.0	4382.5	4584.6	4626.7	4660.4	4388.9	3490.0
62.5°	3557.4	3502.7	3626.9	4102.6	4597.3	4746.7	4906.7	4740.4	4710.9	4332.0	3359.5
65°	3641.6	3658.4	3820.5	4372.0	4978.3	5087.7	5108.8	4894.1	4742.5	4205.7	3237.4
67.5°	3772.1	3795.3	4001.5	4647.8	5369.8	5430.8	5355.0	5033.0	4715.1	4041.5	2797.5
70°	3788.9	3845.8	4243.6	4936.2	5616.1	5668.7	5609.7	5125.6	4494.1	3395.3	2071.3
72.5°	3700.5	3801.6	4302.6	5100.3	5822.3	5955.0	5624.5	4799.3	3622.7	2166.0	1060.9
75°	2795.4	2879.6	3938.4	4856.2	5456.1	5487.7	4938.3	3662.6	2062.9	738.8	271.5
77.5°	1448.2	1593.5	2629.1	3711.1	4157.3	4123.6	3437.4	2157.6	709.4	193.7	109.5
80°	831.5	867.2	1149.3	2083.9	2614.4	2486.0	1900.8	930.4	311.5	96.8	71.6
82.5°	410.5	461.0	618.9	932.5	1307.2	1075.6	713.6	557.8	174.7	52.6	63.1
85°	88.4	92.6	315.7	446.3	530.5	349.4	244.2	469.4	63.1	31.6	61.0
87.5°	63.1	61.0	88.4	200.0	147.3	90.5	145.2	246.3	14.7	14.7	12.6
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°	1622.9	1622.9	1622.9	1622.9	1622.9	1622.9	1622.9	1622.9	1622.9	1622.9	1622.9
2.5°	1622.9	1604.0	1582.9	1542.9	1532.4	1526.1	1490.3	1488.2	1481.9	1467.2	1460.8
5°	1578.7	1547.2	1507.2	1465.1	1431.4	1370.3	1296.7	1258.8	1212.5	1214.6	1199.8
7.5°	1572.4	1513.5	1456.6	1368.2	1260.9	1147.2	1033.5	959.9	907.2	875.7	882.0
10°	1542.9	1498.7	1406.1	1241.9	1069.3	896.7	751.5	642.0	578.9	530.5	545.2
12.5°	1555.6	1469.3	1338.8	1119.8	873.6	661.0	479.9	374.7	328.4	311.5	315.7
15°	1547.2	1469.3	1298.8	987.2	686.2	448.4	311.5	277.9	269.4	269.4	265.2
17.5°	1572.4	1486.1	1231.4	856.7	492.6	298.9	267.3	261.0	254.7	254.7	254.7
20°	1608.2	1494.5	1185.1	711.5	347.3	263.1	250.5	246.3	244.2	244.2	242.1
22.5°	1610.3	1486.1	1098.8	551.5	267.3	248.4	237.9	235.8	235.8	231.5	231.5
25°	1622.9	1494.5	1006.2	414.7	248.4	233.7	225.2	223.1	225.2	223.1	221.0
27.5°	1654.5	1509.3	913.6	303.1	233.7	221.0	214.7	212.6	212.6	212.6	208.4
30°	1694.5	1509.3	810.4	250.5	221.0	208.4	202.1	200.0	197.9	197.9	197.9
32.5°	1778.7	1557.7	684.1	223.1	204.2	193.7	187.3	187.3	185.2	185.2	183.1
35°	1883.9	1591.4	555.7	206.3	189.4	178.9	172.6	172.6	170.5	170.5	168.4
37.5°	2014.5	1675.6	425.2	193.7	174.7	164.2	157.9	157.9	157.9	155.8	155.8
40°	2199.7	1761.9	315.7	176.8	160.0	149.5	145.2	143.1	141.0	141.0	136.8
42.5°	2397.6	1894.5	235.8	164.2	147.3	138.9	132.6	126.3	126.3	120.0	120.0
45°	2612.3	2010.2	191.6	149.5	134.7	124.2	117.9	113.7	107.4	103.1	103.1
47.5°	2822.8	2081.8	168.4	132.6	122.1	113.7	107.4	98.9	90.5	88.4	86.3
50°	2993.3	2102.9	149.5	120.0	111.6	103.1	94.7	84.2	75.8	71.6	69.5
52.5°	2993.3	1987.1	134.7	107.4	101.0	92.6	82.1	69.5	58.9	54.7	52.6
55°	2993.3	1804.0	120.0	98.9	90.5	84.2	69.5	56.8	46.3	40.0	37.9
57.5°	2949.1	1582.9	107.4	88.4	80.0	71.6	58.9	44.2	33.7	27.4	27.4
60°	2827.0	1351.4	92.6	77.9	69.5	58.9	46.3	31.6	21.0	14.7	14.7
62.5°	2671.2	1075.6	80.0	65.3	56.8	48.4	35.8	21.0	8.4	4.2	4.2
65°	2399.7	793.6	69.5	54.7	44.2	35.8	23.2	8.4	0.0	0.0	0.0
67.5°	1980.8	530.5	54.7	44.2	37.9	25.3	14.7	2.1	0.0	0.0	0.0
70°	1393.5	301.0	42.1	31.6	27.4	16.8	4.2	0.0	0.0	0.0	0.0
72.5°	572.6	132.6	29.5	23.2	18.9	8.4	0.0	0.0	0.0	0.0	0.0
75°	155.8	58.9	18.9	12.6	10.5	2.1	0.0	0.0	0.0	0.0	0.0
77.5°	90.5	40.0	8.4	4.2	4.2	0.0	0.0	0.0	0.0	0.0	0.0
80°	71.6	18.9	4.2	2.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	71.6	10.5	2.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	61.0	4.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	8.4	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)