

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: P401821

Luminaire Tested: **ENV-SA1F-730-U-T3-HSS**

Issue Date: 5/20/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P401821  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2004-754-14)  
Test Lab: INNOVATION CENTER  
Issue Date: 5/20/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: INVUE  
Catalog Number: ENV-SA1F-730-U-T3-HSS  
Description: ENTRI LED LUMINAIRE  
(1) 70 CRI, 3000K, 1200mA LIGHTSQUARE WITH 16 LEDS AND TYPE III OPTICS WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 5448 lumens  
Efficiency: N/A  
Efficacy: 82.4 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')  
IES Classification: Type III - Short - Full Cutoff  
BUG Rating: B1 - U0 - G1

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

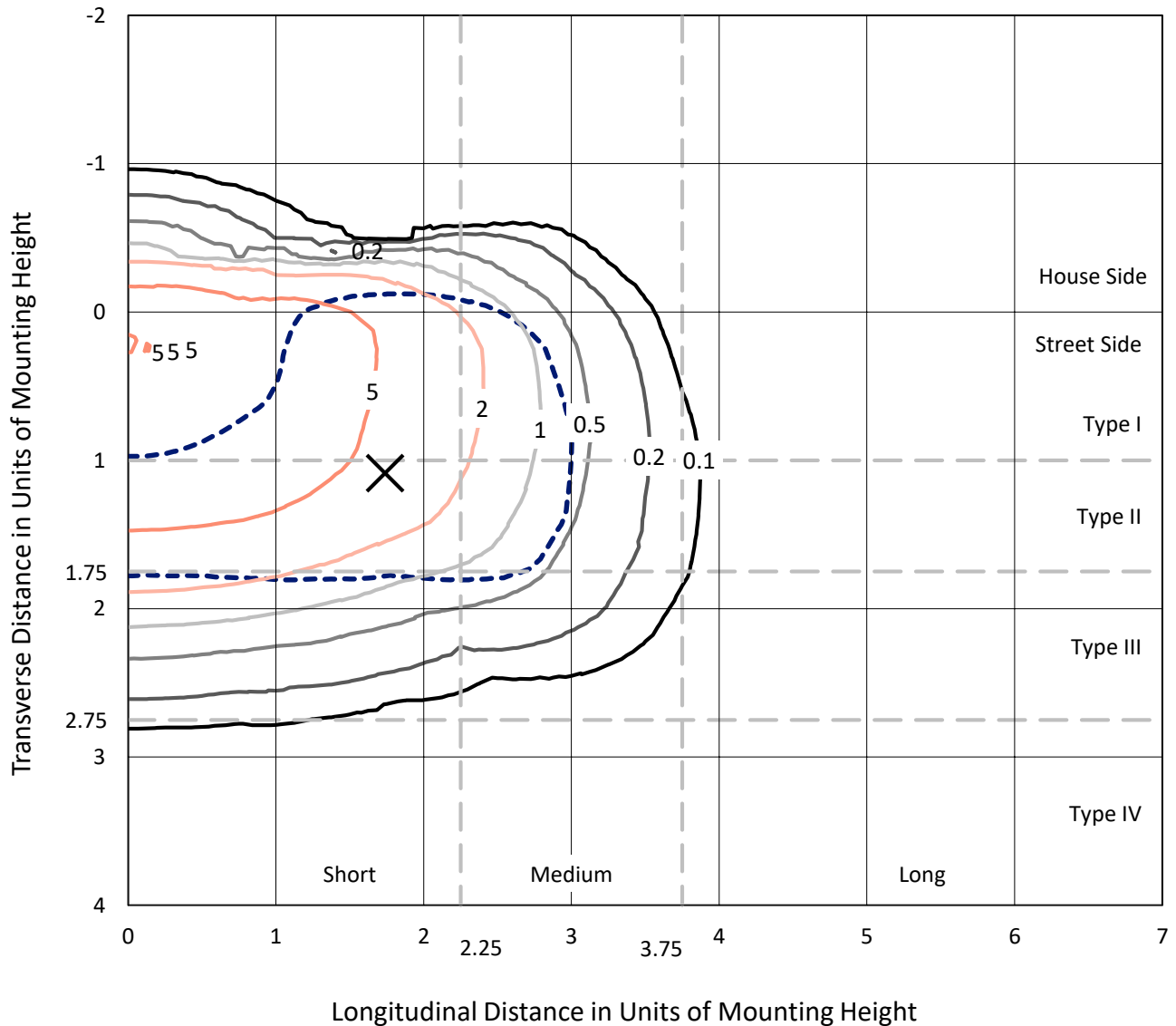


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### Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd  
 - - - 1/2 Max cd

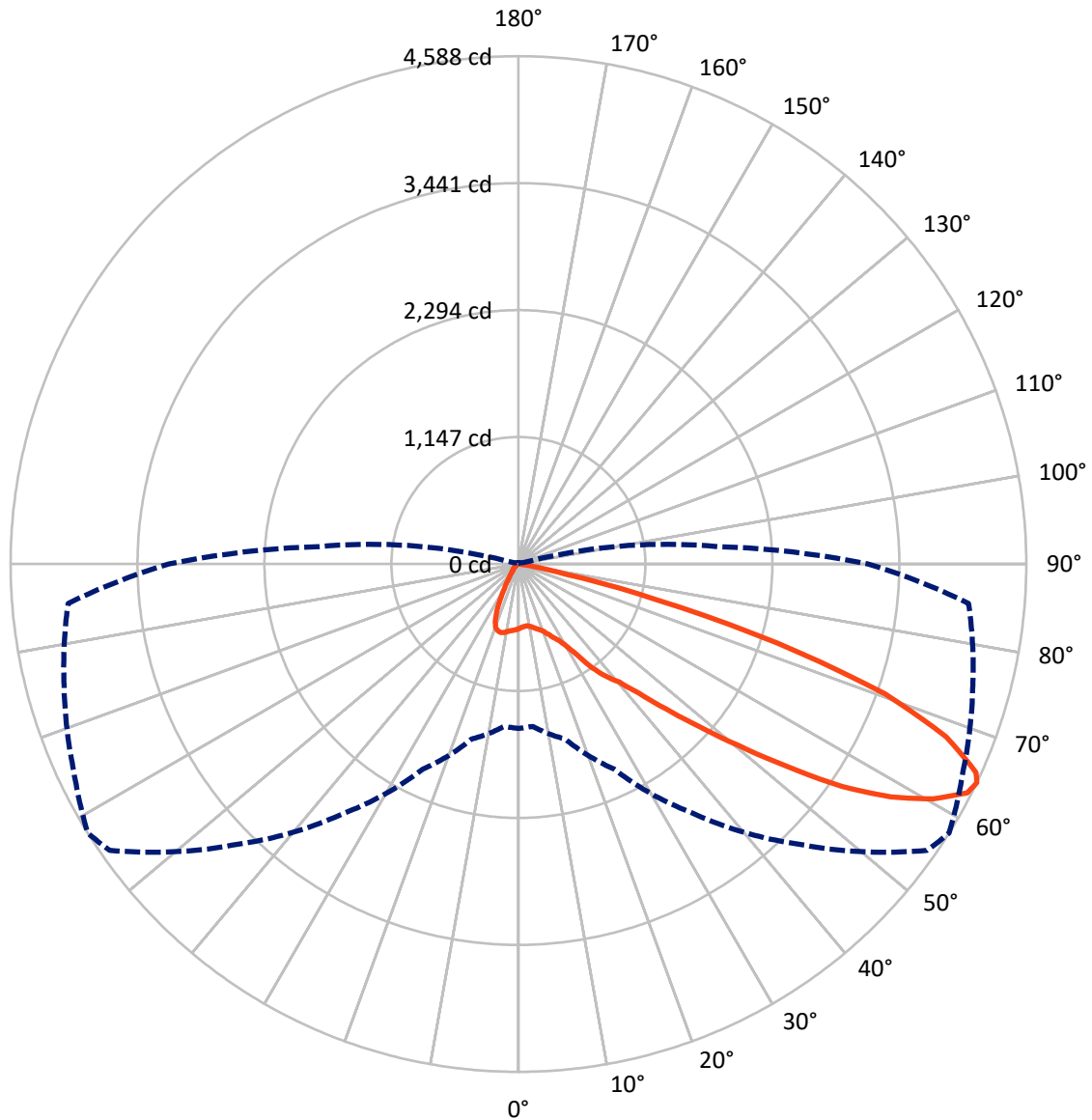


Based on 10 foot mounting height. Maximum calculated value = 8.6 fc  
 Type III - Short - Full Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 58-Deg Lateral    - - - Horizontal Cone Through 64-Deg Vertical

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**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	649.5	0.0	649.5
	% Fixture	11.9	0.0	11.9
<b>Street Side</b>	Lumens	4798.5	0.0	4798.5
	% Fixture	88.1	0.0	88.1
<b>Total</b>	Lumens	5448.0	0.0	5448.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	55.2	1.0
10°-20°	160.7	3.0
20°-30°	288.8	5.3
30°-40°	506.3	9.3
40°-50°	925.7	17.0
50°-60°	1583.6	29.1
60°-70°	1536.3	28.2
70°-80°	380.5	7.0
80°-90°	10.8	0.2
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°	5448.0	100.0
0°-180°	5448.0	100.0

**Coefficient of Utilization**



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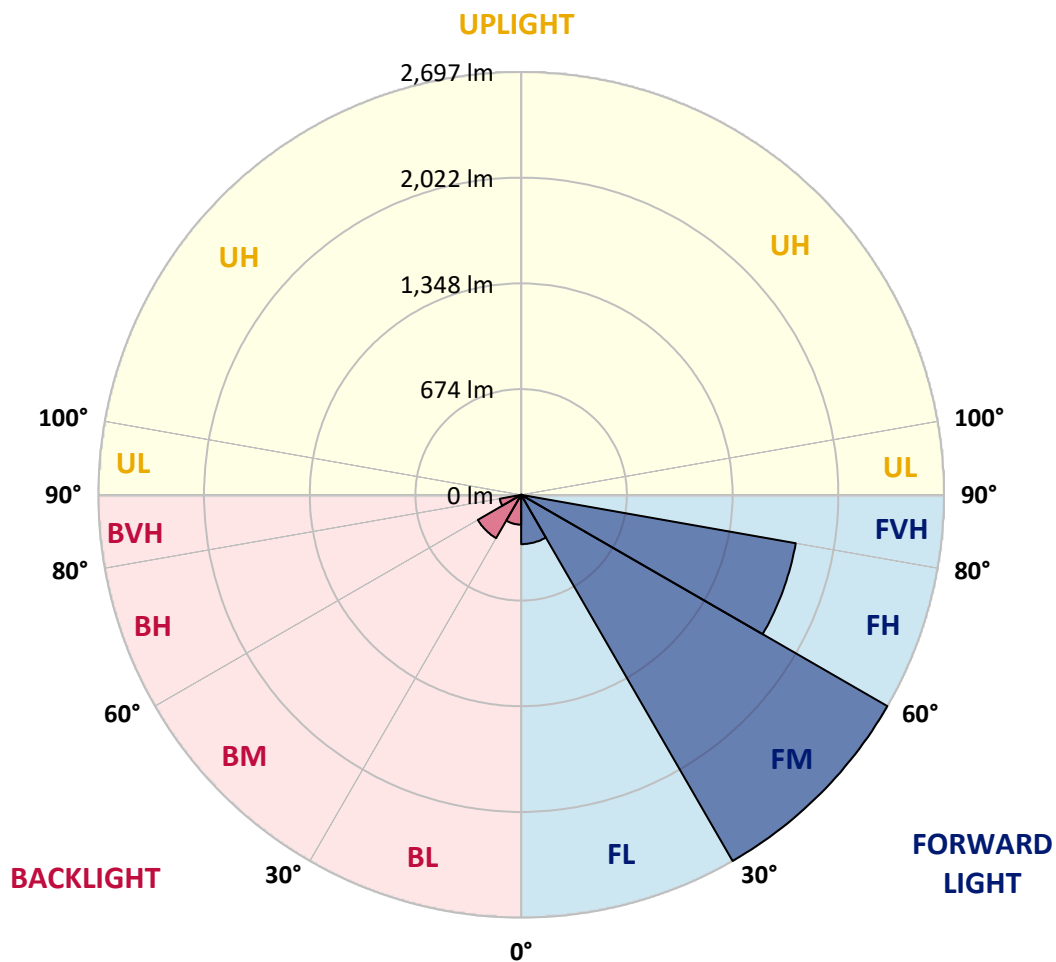
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	314.6	5.8			
FM (30°-60°)	2696.6	49.5			
FH (60°-80°)	1778.1	32.6			G1/1800
FVH (80°-90°)	9.2	0.2			G0/10
BL (0°-30°)	190.2	3.5	B1/500		
BM (30°-60°)	319.0	5.9	B1/1000		
BH (60°-80°)	138.7	2.5	B1/500		G1/500
BVH (80°-90°)	1.6	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-G1**

Type III Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	58°	65°	75°	85°
0°	583.6	583.6	583.6	583.6	583.6	583.6	583.6	583.6	583.6	583.6	583.6
2.5°	559.4	559.4	561.4	562.4	565.4	568.5	572.5	573.5	575.5	580.5	582.6
5°	529.1	530.2	532.2	537.2	544.3	552.3	562.4	565.4	573.5	583.6	590.6
7.5°	517.0	518.1	521.1	527.1	536.2	548.3	560.4	564.4	575.5	591.6	601.7
10°	515.0	515.0	519.1	528.1	539.2	554.3	567.4	572.5	587.6	606.8	622.9
12.5°	515.0	515.0	520.1	531.2	544.3	563.4	581.6	588.6	605.7	629.9	650.1
15°	524.1	526.1	529.1	536.2	551.3	572.5	597.7	605.7	626.9	656.1	681.3
17.5°	588.6	586.6	576.5	567.4	564.4	582.6	612.8	623.9	655.1	692.4	719.6
20°	713.6	712.6	694.4	650.1	610.8	600.7	636.0	649.1	694.4	743.8	764.0
22.5°	864.8	869.8	841.6	782.1	701.5	650.1	670.2	688.4	746.8	806.3	818.4
25°	1014.9	1021.0	994.8	920.2	821.4	731.7	717.6	733.7	800.3	859.7	854.7
27.5°	1192.3	1187.3	1161.1	1076.4	961.5	841.6	781.1	784.1	835.5	902.1	885.9
30°	1322.4	1315.3	1290.1	1232.7	1124.8	987.7	871.8	862.8	877.9	951.5	934.3
32.5°	1441.3	1446.3	1427.2	1350.6	1248.8	1137.9	1007.9	983.7	977.7	1040.1	1011.9
35°	1559.2	1558.2	1551.1	1483.6	1383.8	1279.0	1170.2	1153.0	1151.0	1211.5	1134.9
37.5°	1700.3	1693.3	1680.2	1611.6	1532.0	1432.2	1316.3	1289.1	1284.1	1296.2	1206.4
40°	1851.5	1860.6	1839.4	1767.8	1681.2	1606.6	1444.3	1403.0	1368.7	1404.0	1346.5
42.5°	2076.3	2083.3	2046.0	1996.6	1884.8	1815.2	1650.9	1594.5	1578.4	1631.8	1567.3
45°	2358.5	2345.4	2320.2	2285.9	2193.2	2087.3	1916.0	1862.6	1845.5	1937.2	1831.3
47.5°	2578.2	2576.2	2577.2	2570.1	2556.0	2429.0	2225.4	2189.1	2172.0	2304.0	2187.1
50°	2717.3	2725.3	2759.6	2847.3	2911.8	2858.4	2619.5	2575.2	2562.1	2699.1	2540.9
52.5°	2822.1	2841.3	2898.7	3072.1	3278.7	3296.8	3099.3	3036.8	3006.5	3044.8	2825.1
55°	2875.5	2884.6	2972.3	3228.3	3551.8	3681.8	3599.2	3546.8	3424.8	3352.3	3158.7
57.5°	2750.5	2736.4	2887.6	3213.2	3692.9	3992.3	4027.5	3968.1	3772.5	3716.1	3563.9
60°	2423.0	2416.9	2587.3	2978.3	3570.0	4064.8	4345.0	4307.7	4128.3	3994.3	3851.2
62.5°	1848.5	1858.6	2039.0	2437.1	3131.5	3856.2	4521.4	4551.7	4361.2	4161.6	4063.8
64°	1484.6	1472.5	1637.8	2043.0	2747.5	3578.0	4508.3	4587.9	4431.7	4249.3	4083.0
65°	1246.8	1220.6	1378.8	1745.7	2423.0	3376.4	4415.6	4543.6	4436.8	4270.4	4013.4
67.5°	656.1	670.2	737.8	1060.3	1635.8	2553.0	3976.1	4169.7	4213.0	3981.2	3497.4
70°	294.3	296.3	339.7	541.2	905.1	1656.0	3198.0	3511.5	3535.7	3270.6	2533.8
72.5°	97.8	98.8	150.2	216.7	380.0	767.0	2159.9	2445.2	2497.6	2120.6	1374.8
75°	60.5	62.5	79.6	116.9	176.4	268.1	1094.6	1288.1	1299.2	940.4	499.9
77.5°	38.3	40.3	48.4	69.5	96.8	101.8	358.8	434.4	491.9	338.7	155.2
80°	24.2	24.2	31.2	42.3	50.4	43.3	97.8	129.0	155.2	113.9	52.4
82.5°	9.1	9.1	16.1	23.2	21.2	15.1	26.2	34.3	59.5	56.4	25.2
85°	0.0	0.0	1.0	2.0	1.0	2.0	5.0	7.1	11.1	16.1	8.1
87.5°	0.0	0.0	0.0	0.0	1.0	1.0	2.0	2.0	2.0	2.0	2.0
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°	583.6	583.6	583.6	583.6	583.6	583.6	583.6	583.6	583.6	583.6	583.6
2.5°	585.6	587.6	591.6	592.6	593.6	590.6	593.6	590.6	592.6	592.6	592.6
5°	594.7	597.7	600.7	601.7	600.7	593.6	595.7	590.6	589.6	589.6	589.6
7.5°	606.8	609.8	614.8	611.8	605.7	595.7	594.7	587.6	584.6	584.6	585.6
10°	628.9	631.9	634.0	627.9	615.8	600.7	589.6	574.5	567.4	564.4	564.4
12.5°	657.1	660.2	659.2	649.1	626.9	595.7	564.4	535.2	514.0	506.0	497.9
15°	687.4	691.4	689.4	668.2	625.9	570.5	510.0	441.5	399.1	371.9	366.9
17.5°	722.7	726.7	716.6	678.3	610.8	517.0	402.1	309.4	247.9	224.8	223.8
20°	766.0	764.0	739.8	679.3	583.6	418.3	269.1	193.5	167.3	161.3	160.3
22.5°	815.4	806.3	762.0	673.3	509.0	284.2	173.4	153.2	150.2	148.2	148.2
25°	843.6	827.5	770.0	656.1	392.1	181.4	147.2	143.1	139.1	135.1	134.0
27.5°	865.8	841.6	773.1	599.7	261.0	139.1	133.0	129.0	123.0	116.9	115.9
30°	906.1	869.8	778.1	500.9	160.3	118.9	115.9	108.9	99.8	93.7	91.7
32.5°	978.7	926.3	798.3	374.9	116.9	104.8	96.8	87.7	77.6	71.6	71.6
35°	1056.3	979.7	808.3	246.9	101.8	91.7	79.6	68.5	59.5	54.4	53.4
37.5°	1127.8	1056.3	805.3	151.2	90.7	78.6	65.5	54.4	46.4	42.3	42.3
40°	1274.0	1190.3	764.0	103.8	79.6	66.5	53.4	42.3	37.3	34.3	34.3
42.5°	1482.6	1337.5	672.3	88.7	69.5	55.4	42.3	35.3	31.2	28.2	28.2
45°	1716.4	1499.7	536.2	79.6	60.5	46.4	35.3	29.2	25.2	24.2	24.2
47.5°	2022.8	1696.3	394.1	71.6	52.4	39.3	29.2	24.2	22.2	21.2	21.2
50°	2290.9	1855.5	269.1	62.5	46.4	33.3	25.2	22.2	20.2	19.1	19.1
52.5°	2534.9	1966.4	177.4	54.4	41.3	27.2	23.2	20.2	19.1	18.1	18.1
55°	2822.1	2051.1	119.9	47.4	36.3	25.2	22.2	20.2	18.1	18.1	17.1
57.5°	3066.0	2101.5	85.7	40.3	32.3	23.2	21.2	19.1	17.1	16.1	16.1
60°	3208.1	2042.0	62.5	35.3	28.2	21.2	19.1	17.1	16.1	15.1	15.1
62.5°	3247.4	1927.1	48.4	30.2	24.2	19.1	17.1	15.1	14.1	13.1	13.1
64°	3156.7	1804.1	41.3	26.2	21.2	17.1	16.1	14.1	12.1	10.1	10.1
65°	3028.7	1690.2	37.3	24.2	19.1	16.1	15.1	13.1	10.1	8.1	8.1
67.5°	2523.8	1347.6	30.2	20.2	15.1	14.1	12.1	10.1	7.1	5.0	5.0
70°	1792.0	942.4	23.2	16.1	13.1	13.1	11.1	8.1	4.0	2.0	2.0
72.5°	948.4	489.8	19.1	13.1	10.1	10.1	9.1	5.0	3.0	2.0	1.0
75°	331.6	161.3	16.1	11.1	9.1	7.1	6.0	4.0	3.0	2.0	1.0
77.5°	100.8	53.4	14.1	11.1	8.1	6.0	7.1	6.0	6.0	4.0	3.0
80°	32.3	19.1	8.1	7.1	8.1	8.1	7.1	6.0	7.1	5.0	4.0
82.5°	12.1	7.1	3.0	4.0	4.0	5.0	5.0	4.0	3.0	1.0	0.0
85°	4.0	3.0	2.0	3.0	3.0	3.0	2.0	2.0	1.0	0.0	0.0
87.5°	2.0	2.0	2.0	2.0	2.0	2.0	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

(END OF REPORT)