

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: P401698

Luminaire Tested: **ENT-SA1E-740-U-T4W-HSS**

Issue Date: 5/20/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P401698  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2004-754-18)  
Test Lab: INNOVATION CENTER  
Issue Date: 5/20/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: INVUE  
Catalog Number: ENT-SA1E-740-U-T4W-HSS  
Description: ENTRI LED LUMINAIRE  
(1) 70 CRI, 4000K, 1050mA LIGHTSQUARE WITH 16 LEDS AND TYPE IV WIDE OPTICS WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 5246 lumens  
Efficiency: N/A  
Efficacy: 91.7 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 - G2

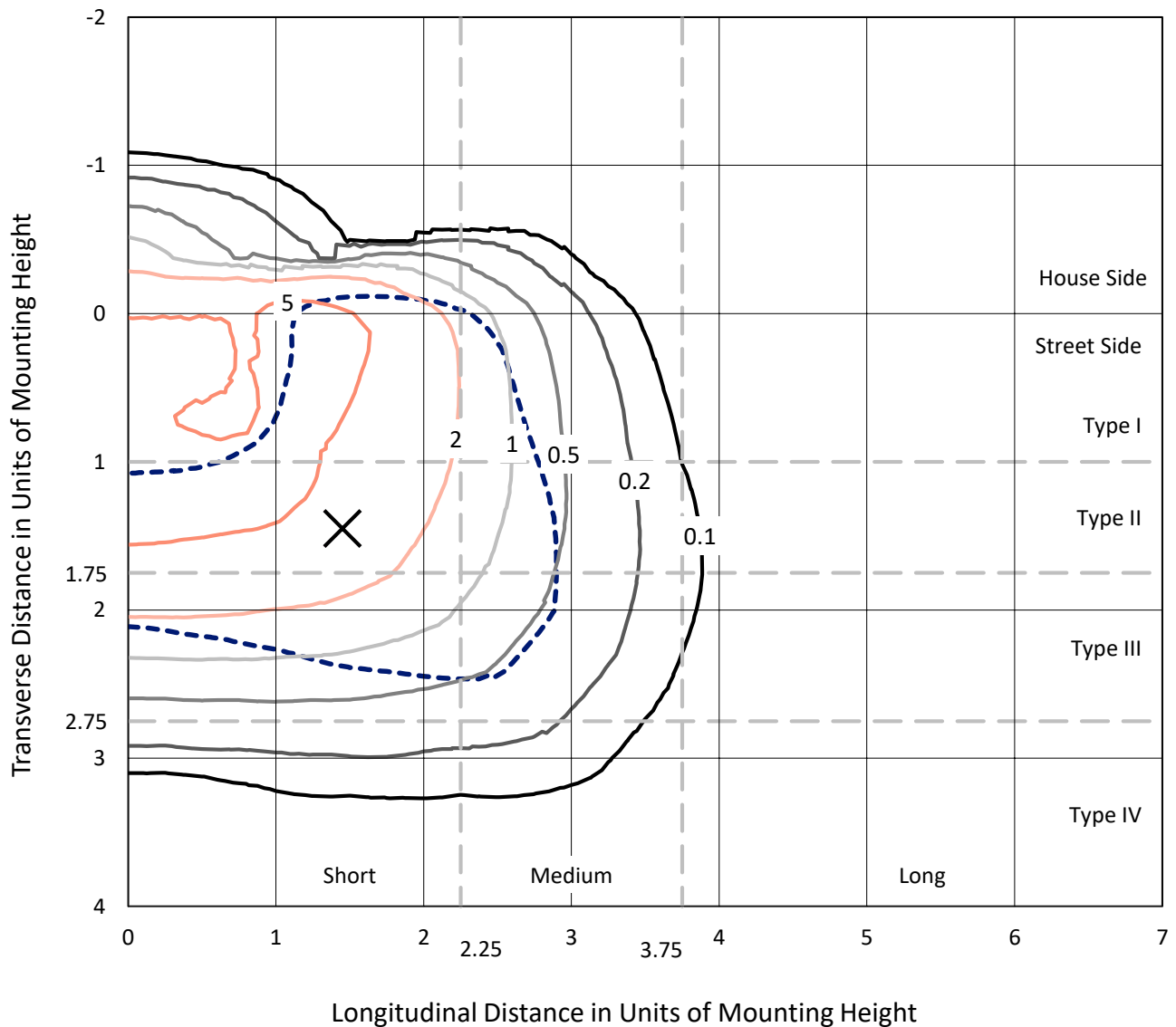
Input Watts (W): 57.2  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Iso-Footcandle Lines of Horizontal Illumination

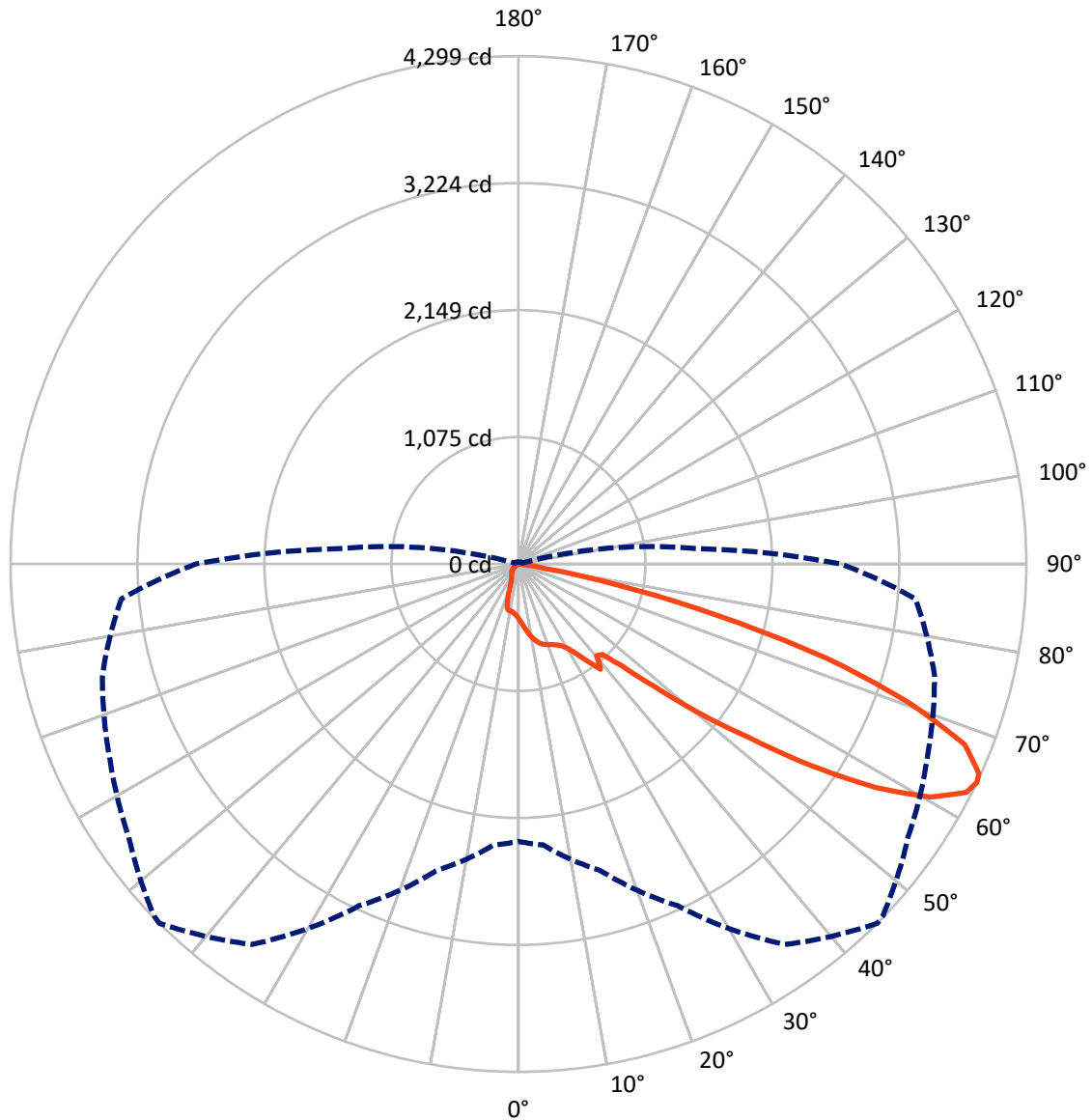
✕ Max cd  
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 6.9 fc  
 Type III - Short - Full Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 45-Deg Lateral    - - - Horizontal Cone Through 64-Deg Vertical

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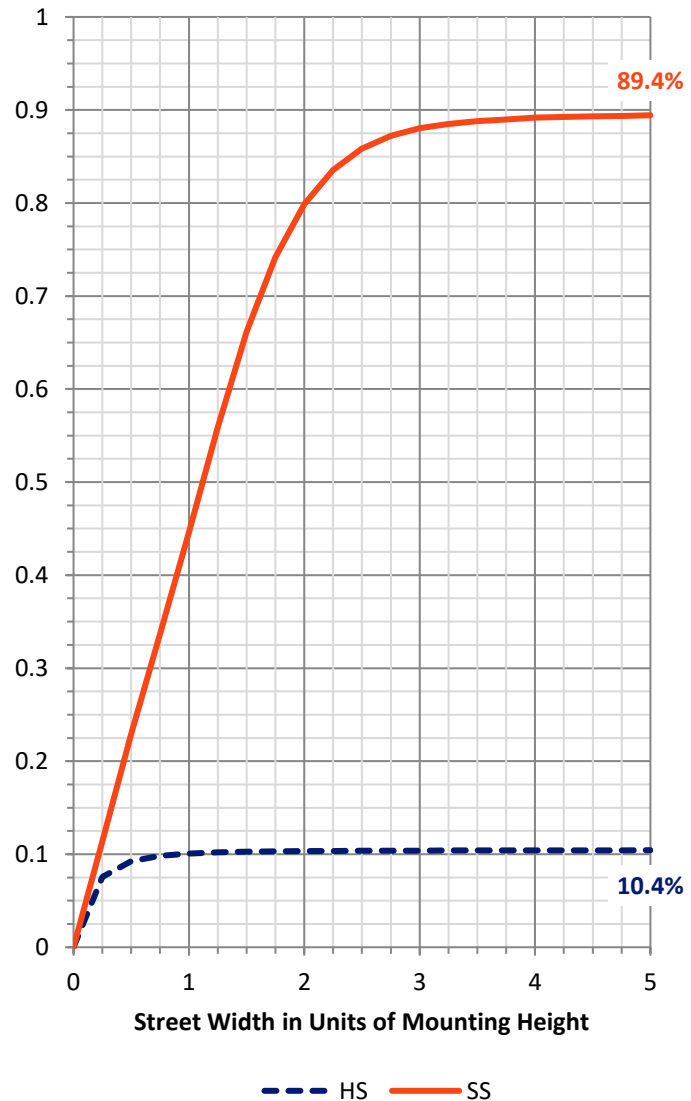
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	553.6	0.0	553.6
	% Fixture	10.6	0.0	10.6
<b>Street Side</b>	Lumens	4692.5	0.0	4692.5
	% Fixture	89.4	0.0	89.4
<b>Total</b>	Lumens	5246.0	0.0	5246.0
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	47.2	0.9
10°-20°	147.1	2.8
20°-30°	239.4	4.6
30°-40°	380.3	7.2
40°-50°	724.4	13.8
50°-60°	1492.7	28.5
60°-70°	1667.1	31.8
70°-80°	526.6	10.0
80°-90°	21.4	0.4
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°	5246.0	100.0
0°-180°	5246.0	100.0



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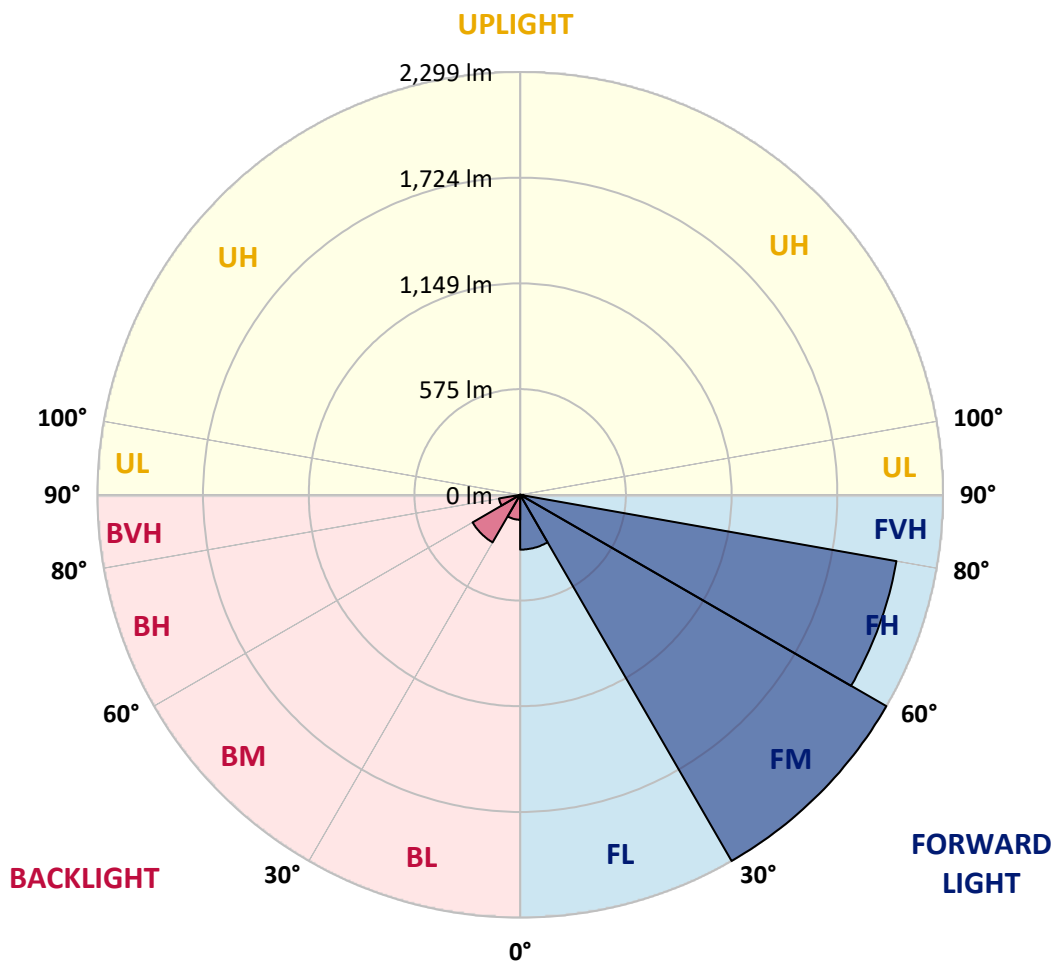
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	298.0	5.7			
FM	(30°-60°)	2298.6	43.8			
FH	(60°-80°)	2077.0	39.6			G2/5000
FVH	(80°-90°)	18.9	0.4			G1/100
BL	(0°-30°)	135.6	2.6	B1/500		
BM	(30°-60°)	298.7	5.7	B1/1000		
BH	(60°-80°)	116.7	2.2	B1/500		G1/500
BVH	(80°-90°)	2.5	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 III Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	46°	55°	65°	75°	85°
0°	465.0	465.0	465.0	465.0	465.0	465.0	465.0	465.0	465.0	465.0	465.0
2.5°	513.0	515.0	512.0	508.0	504.0	497.0	498.0	489.0	482.0	477.0	469.0
5°	578.0	577.0	571.0	562.0	553.0	540.0	538.0	524.0	509.0	493.0	478.0
7.5°	644.0	641.0	635.0	623.0	606.0	589.0	584.0	564.0	542.0	518.0	492.0
10°	698.0	696.0	689.0	676.0	656.0	630.0	630.0	602.0	573.0	544.0	513.0
12.5°	742.0	740.0	732.0	716.0	692.0	669.0	666.0	641.0	609.0	575.0	537.0
15°	769.0	767.0	758.0	740.0	719.0	698.0	695.0	671.0	642.0	603.0	559.0
17.5°	776.0	774.0	767.0	751.0	735.0	717.0	713.0	692.0	667.0	627.0	582.0
20°	773.0	769.0	765.0	752.0	739.0	727.0	725.0	710.0	688.0	654.0	606.0
22.5°	765.0	761.0	758.0	749.0	742.0	741.0	739.0	730.0	716.0	687.0	642.0
25°	762.0	759.0	756.0	750.0	749.0	759.0	758.0	757.0	751.0	726.0	679.0
27.5°	779.0	778.0	771.0	761.0	766.0	783.0	784.0	789.0	785.0	769.0	733.0
30°	839.0	834.0	818.0	796.0	809.0	831.0	835.0	851.0	852.0	854.0	805.0
32.5°	920.0	912.0	885.0	857.0	865.0	906.0	907.0	932.0	985.0	952.0	844.0
35°	976.0	966.0	925.0	910.0	950.0	1015.0	1024.0	1075.0	1079.0	959.0	841.0
37.5°	1133.0	1118.0	1043.0	952.0	991.0	1131.0	1141.0	1132.0	1048.0	949.0	884.0
40°	1343.0	1329.0	1262.0	1109.0	999.0	1020.0	1025.0	1052.0	1068.0	1019.0	1022.0
42.5°	1616.0	1598.0	1529.0	1342.0	1124.0	1047.0	1057.0	1112.0	1217.0	1240.0	1358.0
45°	1895.0	1885.0	1815.0	1613.0	1352.0	1231.0	1236.0	1303.0	1491.0	1636.0	1736.0
47.5°	2168.0	2170.0	2110.0	1939.0	1684.0	1550.0	1544.0	1631.0	1869.0	1972.0	2074.0
50°	2553.0	2551.0	2444.0	2338.0	2139.0	1980.0	1970.0	2019.0	2248.0	2286.0	2444.0
52.5°	2990.9	2988.9	2827.9	2777.9	2693.9	2438.0	2465.0	2423.0	2587.9	2655.9	2879.9
55°	3198.9	3180.9	3112.9	3175.9	3275.9	3018.9	3014.9	2854.9	2983.9	3041.9	3250.9
57.5°	3177.9	3184.9	3249.9	3458.9	3786.9	3571.9	3577.9	3280.9	3355.9	3391.9	3544.9
60°	3058.9	3063.9	3214.9	3562.9	4041.9	4004.9	3983.9	3678.9	3629.9	3614.9	3687.9
62.5°	2718.9	2720.9	2965.9	3412.9	4039.9	4254.9	4234.9	3958.9	3805.9	3709.9	3576.9
64°	2349.0	2387.0	2686.9	3191.9	3930.9	4298.9	4287.9	4026.9	3821.9	3645.9	3372.9
65°	2045.0	2102.0	2465.0	2995.9	3807.9	4283.9	4270.9	4014.9	3799.9	3525.9	3161.9
67.5°	1395.0	1425.0	1751.0	2358.0	3338.9	4072.9	4068.9	3860.9	3560.9	3045.9	2481.0
70°	823.0	845.0	1086.0	1646.0	2565.9	3498.9	3551.9	3476.9	2955.9	2188.0	1580.0
72.5°	256.0	269.0	479.0	914.0	1682.0	2725.9	2794.9	2740.9	2152.0	1367.0	876.0
75°	96.0	100.0	158.0	397.0	837.0	1743.0	1764.0	1827.0	1311.0	722.0	383.0
77.5°	53.0	54.0	78.0	149.0	368.0	856.0	876.0	868.0	697.0	341.0	122.0
80°	26.0	27.0	38.0	66.0	143.0	242.0	287.0	379.0	246.0	168.0	39.0
82.5°	9.0	8.0	17.0	30.0	48.0	65.0	73.0	105.0	103.0	92.0	14.0
85°	0.0	0.0	1.0	1.0	1.0	2.0	2.0	13.0	26.0	30.0	4.0
87.5°	0.0	0.0	0.0	1.0	1.0	1.0	1.0	1.0	1.0	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°	465.0	465.0	465.0	465.0	465.0	465.0	465.0	465.0	465.0	465.0	465.0
2.5°	465.0	463.0	456.0	449.0	444.0	438.0	437.0	433.0	432.0	432.0	432.0
5°	470.0	464.0	451.0	440.0	430.0	421.0	417.0	413.0	410.0	409.0	409.0
7.5°	481.0	472.0	451.0	435.0	420.0	409.0	403.0	399.0	396.0	396.0	396.0
10°	497.0	483.0	457.0	435.0	417.0	403.0	394.0	388.0	384.0	383.0	384.0
12.5°	517.0	499.0	467.0	440.0	419.0	401.0	382.0	347.0	324.0	311.0	309.0
15°	536.0	515.0	478.0	447.0	422.0	382.0	313.0	259.0	223.0	212.0	210.0
17.5°	557.0	535.0	493.0	457.0	411.0	308.0	223.0	178.0	171.0	173.0	173.0
20°	583.0	557.0	509.0	467.0	354.0	219.0	163.0	157.0	159.0	163.0	163.0
22.5°	613.0	585.0	531.0	461.0	270.0	160.0	149.0	150.0	152.0	156.0	156.0
25°	652.0	623.0	555.0	416.0	188.0	140.0	141.0	142.0	145.0	149.0	150.0
27.5°	710.0	675.0	584.0	349.0	142.0	130.0	131.0	134.0	137.0	142.0	142.0
30°	772.0	729.0	610.0	269.0	124.0	119.0	120.0	123.0	128.0	132.0	134.0
32.5°	799.0	761.0	615.0	184.0	115.0	110.0	108.0	111.0	115.0	119.0	120.0
35°	814.0	798.0	591.0	133.0	108.0	102.0	98.0	97.0	98.0	101.0	101.0
37.5°	888.0	877.0	543.0	114.0	101.0	95.0	89.0	84.0	82.0	81.0	82.0
40°	1030.0	1006.0	480.0	105.0	95.0	88.0	80.0	72.0	65.0	62.0	62.0
42.5°	1343.0	1222.0	390.0	99.0	89.0	81.0	69.0	58.0	50.0	48.0	48.0
45°	1680.0	1490.0	293.0	94.0	83.0	73.0	58.0	46.0	39.0	37.0	37.0
47.5°	2004.0	1688.0	205.0	88.0	76.0	64.0	48.0	37.0	32.0	31.0	31.0
50°	2344.0	1860.0	143.0	81.0	69.0	55.0	39.0	30.0	27.0	27.0	27.0
52.5°	2674.9	1987.0	105.0	74.0	60.0	46.0	33.0	27.0	25.0	25.0	25.0
55°	2924.9	2036.0	80.0	65.0	51.0	39.0	30.0	26.0	24.0	23.0	23.0
57.5°	3091.9	1995.0	65.0	54.0	43.0	34.0	27.0	24.0	22.0	21.0	21.0
60°	3087.9	1859.0	52.0	44.0	35.0	29.0	25.0	22.0	20.0	19.0	19.0
62.5°	2906.9	1638.0	41.0	35.0	29.0	25.0	22.0	20.0	18.0	17.0	16.0
64°	2729.9	1501.0	35.0	30.0	26.0	23.0	20.0	18.0	16.0	14.0	14.0
65°	2538.0	1371.0	32.0	27.0	23.0	21.0	19.0	17.0	14.0	12.0	12.0
67.5°	1930.0	1015.0	26.0	21.0	18.0	17.0	15.0	13.0	10.0	8.0	8.0
70°	1253.0	657.0	22.0	17.0	15.0	15.0	14.0	11.0	8.0	7.0	6.0
72.5°	642.0	327.0	18.0	14.0	13.0	13.0	12.0	9.0	7.0	6.0	5.0
75°	272.0	133.0	15.0	12.0	11.0	10.0	9.0	8.0	6.0	5.0	5.0
77.5°	95.0	50.0	14.0	12.0	9.0	8.0	8.0	8.0	8.0	7.0	6.0
80°	32.0	19.0	9.0	9.0	10.0	11.0	11.0	10.0	11.0	9.0	7.0
82.5°	13.0	7.0	3.0	4.0	7.0	8.0	9.0	9.0	9.0	7.0	6.0
85°	3.0	2.0	2.0	3.0	3.0	4.0	4.0	5.0	5.0	4.0	4.0
87.5°	2.0	2.0	2.0	2.0	2.0	2.0	3.0	2.0	3.0	3.0	3.0
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)