

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: McGRAW-EDISON

Report Number: 769003_320MP

Luminaire Tested: **GSM-XX-320-MP-XX-FT-FG-XX-HS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: 769003_320MP
Test Lab:
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: MCGRAW-EDISON
Catalog Number: GSM-XX-320-MP-XX-FT-FG-XX-HS
Description: MEDIUM ARCHITECTURAL AREA LUMINAIRE-HORIZONTAL LAMP-FORWARD THROW
DISTRIBUTION
WITH HOUSE-SIDE SHIELD
Light Source: 320 WATT PULSE-START CLEAR ED-28 HORIZONTAL BURN
Ballast/Driver: -

Summary

Lumens per Lamp: 30000 (1 lamp)
Luminaire Lumens: 8450.7 lumens
Efficiency: 28.2%
Efficacy: 24.1 lumens/watt
Luminous Opening: Point Source (0' x 0' x 0')
IES Classification: Type IV - Short - Full Cutoff
BUG Rating: B1 - U0 - G2

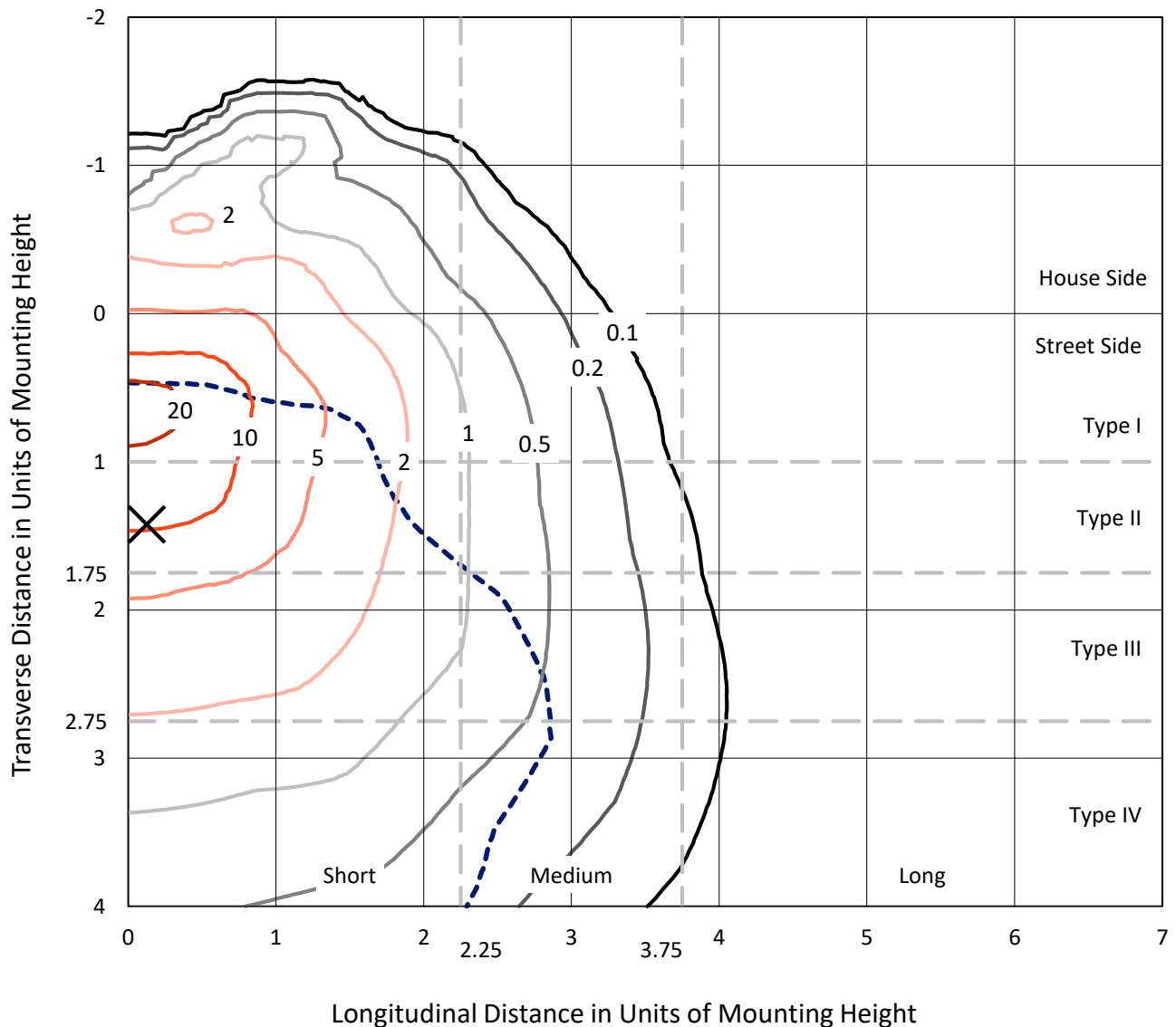
Input Watts (W): 350
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

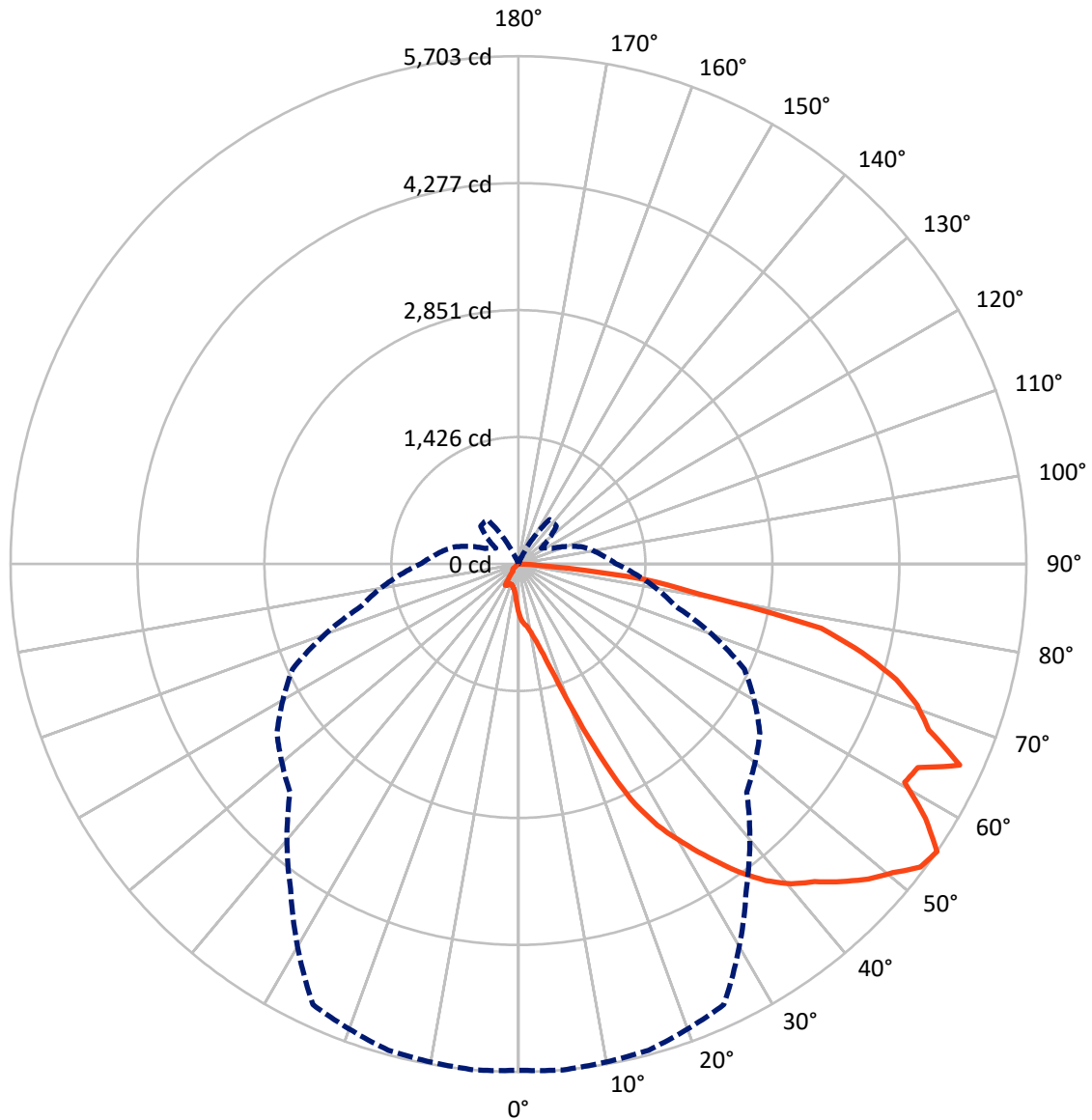
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 23.6 fc
 Type IV - Short - Full Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 5-Deg Lateral - - - Horizontal Cone Through 55-Deg Vertical

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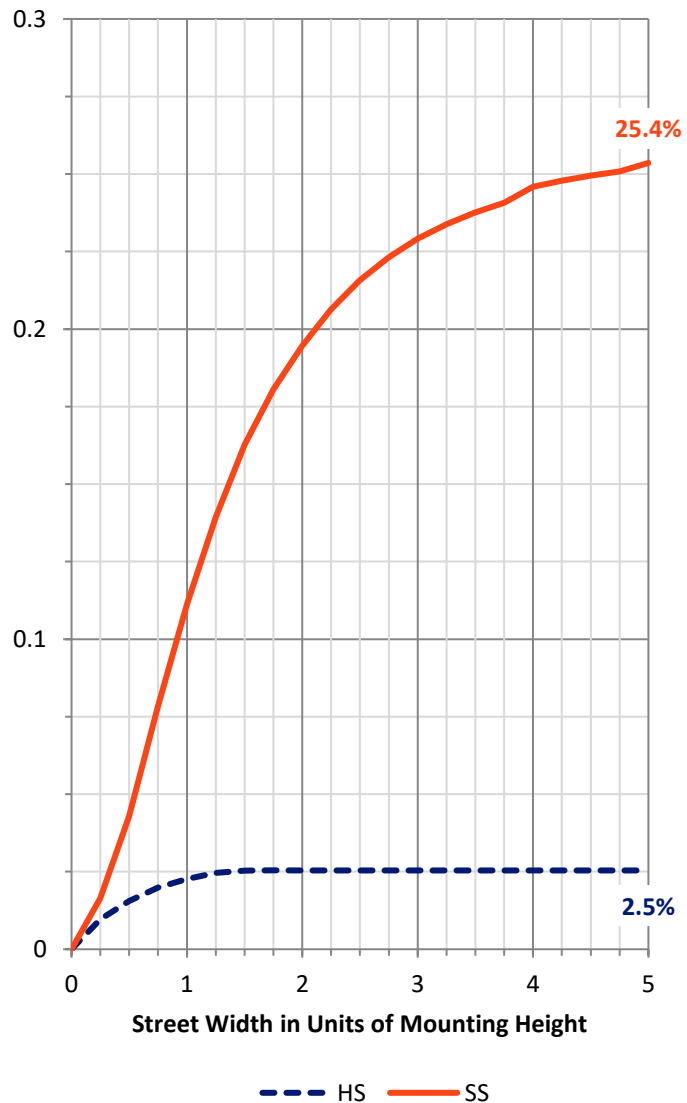
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	767.7	0.0	767.7
	% Lamp	2.6	0.0	2.6
Street Side	Lumens	7683.0	0.0	7683.0
	% Lamp	25.6	0.0	25.6
Total	Lumens	8450.7	0.0	8450.7
	% Lamp	28.2	0.0	28.2

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture	% Lamp
0°-10°	51.3	0.6	0.2
10°-20°	177.3	2.1	0.6
20°-30°	491.0	5.8	1.6
30°-40°	997.6	11.8	3.3
40°-50°	1478.7	17.5	4.9
50°-60°	1861.1	22.0	6.2
60°-70°	1893.5	22.4	6.3
70°-80°	1316.0	15.6	4.4
80°-90°	184.2	2.2	0.6
90°-100°	0.0	0.0	0.0
100°-110°	0.0	0.0	0.0
110°-120°	0.0	0.0	0.0
120°-130°	0.0	0.0	0.0
130°-140°	0.0	0.0	0.0
140°-150°	0.0	0.0	0.0
150°-160°	0.0	0.0	0.0
160°-170°	0.0	0.0	0.0
170°-180°	0.0	0.0	0.0
0°-90°	8450.7	100.0	28.2
0°-180°	8450.7	100.0	28.2



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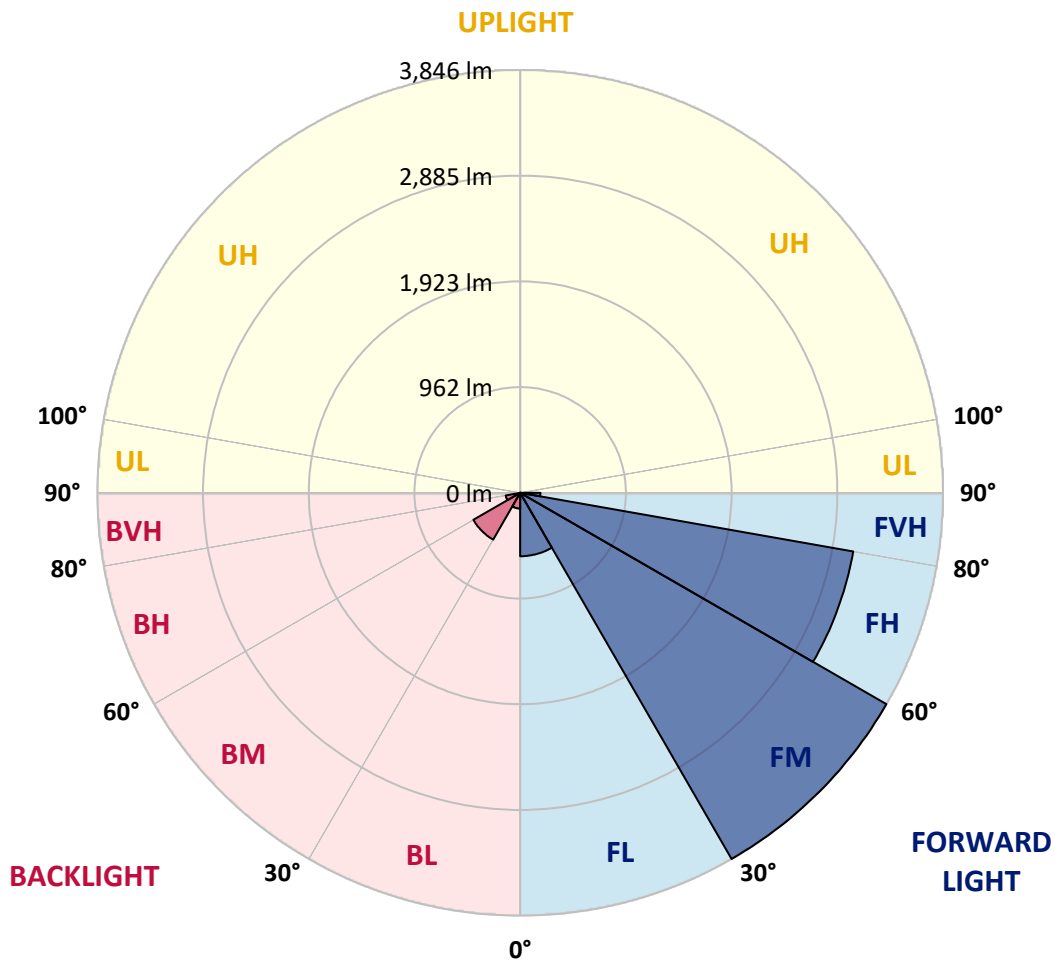
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Lamp	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	576.7	1.9			
FM (30°-60°)	3846.1	12.8			
FH (60°-80°)	3076.0	10.3			G2/5000
FVH (80°-90°)	184.1	0.6			G2/225
BL (0°-30°)	142.8	0.5	B1/500		
BM (30°-60°)	491.4	1.6	B1/1000		
BH (60°-80°)	133.4	0.4	B1/500		G1/500
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	
Trapped Light	21549.3	71.8			

BUG Rating: B1-U0-G2

Type IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	550.0	550.0	550.0	550.0	550.0	550.0	550.0	550.0	550.0	550.0	550.0
2.5°	632.5	628.3	628.3	623.3	623.3	614.2	600.8	591.7	591.7	573.3	559.2
5°	669.2	674.2	674.2	674.2	665.0	660.0	641.7	628.3	605.0	577.5	564.2
7.5°	705.8	710.8	710.8	705.8	696.7	692.5	678.3	660.0	632.5	586.7	564.2
10°	779.2	779.2	765.8	751.7	733.3	710.8	701.7	683.3	655.8	600.8	568.3
12.5°	889.2	889.2	875.8	843.3	797.5	760.8	738.3	715.0	683.3	614.2	577.5
15°	1054.2	1050.0	1022.5	967.5	912.5	852.5	797.5	765.8	720.0	641.7	586.7
17.5°	1329.2	1329.2	1265.0	1160.0	1063.3	990.0	898.3	825.0	765.8	674.2	610.0
20°	1750.8	1746.7	1631.7	1448.3	1288.3	1141.7	1031.7	921.7	825.0	705.8	623.3
22.5°	2337.5	2333.3	2150.0	1870.0	1558.3	1343.3	1173.3	1022.5	894.2	747.5	650.8
25°	2924.2	2920.0	2740.8	2425.0	1961.7	1590.8	1329.2	1160.0	990.0	811.7	692.5
27.5°	3327.5	3323.3	3180.8	2929.2	2480.0	1925.0	1526.7	1297.5	1081.7	889.2	747.5
30°	3612.5	3625.8	3474.2	3250.0	2915.0	2324.2	1732.5	1420.8	1182.5	976.7	815.8
32.5°	3933.3	3933.3	3772.5	3534.2	3208.3	2704.2	1975.8	1530.8	1274.2	1063.3	903.3
35°	4235.8	4240.0	4102.5	3855.0	3455.8	2984.2	2255.0	1650.0	1361.7	1141.7	971.7
37.5°	4501.7	4510.8	4377.5	4180.8	3726.7	3144.2	2511.7	1760.0	1430.0	1200.8	1040.8
40°	4712.5	4721.7	4570.0	4423.3	3988.3	3281.7	2709.2	1893.3	1508.3	1265.0	1109.2
42.5°	4859.2	4877.5	4735.0	4570.0	4135.0	3369.2	2828.3	2025.8	1558.3	1310.8	1164.2
45°	5106.7	5088.3	4936.7	4721.7	4107.5	3387.5	2905.8	2195.8	1581.7	1325.0	1191.7
47.5°	5299.2	5285.0	5143.3	4923.3	4034.2	3387.5	3015.8	2365.0	1595.0	1301.7	1178.3
50°	5445.8	5450.0	5299.2	5079.2	4047.5	3424.2	3149.2	2507.5	1650.0	1292.5	1160.0
52.5°	5647.5	5651.7	5505.0	5230.0	4166.7	3470.0	3245.0	2649.2	1723.3	1288.3	1123.3
55°	5684.2	5702.5	5651.7	5459.2	4460.0	3625.8	3309.2	2800.8	1824.2	1320.0	1100.0
57.5°	5390.8	5390.8	5440.8	5537.5	4877.5	3809.2	3300.0	2883.3	1957.5	1347.5	1077.5
60°	4978.3	4982.5	5019.2	5312.5	5097.5	3951.7	3204.2	2837.5	2012.5	1365.8	1026.7
62.5°	5024.2	5033.3	4909.2	5120.0	4923.3	3955.8	3057.5	2676.7	1970.8	1356.7	999.2
65°	5455.0	5445.8	5413.3	5431.7	4602.5	3772.5	2874.2	2397.5	1810.8	1274.2	980.8
67.5°	4978.3	4969.2	5125.0	5592.5	4606.7	3580.0	2704.2	2135.8	1627.5	1123.3	903.3
70°	4776.7	4749.2	4771.7	5184.2	4529.2	3585.0	2654.2	1879.2	1402.5	916.7	715.0
72.5°	4510.8	4437.5	4327.5	4987.5	4166.7	3768.3	2599.2	1627.5	1123.3	600.8	449.2
75°	4061.7	3992.5	3905.8	4304.2	3510.8	3272.5	2190.8	1182.5	614.2	330.0	210.8
77.5°	3520.8	3474.2	3437.5	3345.8	2608.3	2315.0	1554.2	747.5	344.2	206.7	110.0
80°	2080.8	2062.5	1961.7	1714.2	1380.0	1260.8	875.8	440.0	201.7	100.8	32.5
82.5°	1485.0	1444.2	1325.0	1210.0	848.3	513.3	293.3	128.3	55.0	18.3	0.0
85°	357.5	344.2	353.3	366.7	165.0	87.5	45.8	0.0	0.0	0.0	0.0
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	5.0	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



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CANDELA DISTRIBUTION (continued):

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	550.0	550.0	550.0	550.0	550.0	550.0	550.0	550.0	550.0	550.0
2.5°	559.2	531.7	518.3	500.0	485.8	476.7	463.3	458.3	458.3	449.2
5°	545.8	504.2	467.5	435.8	412.5	394.2	375.8	366.7	366.7	366.7
7.5°	536.7	485.8	430.8	394.2	357.5	339.2	330.0	320.8	316.7	311.7
10°	527.5	463.3	394.2	357.5	325.8	311.7	298.3	289.2	289.2	293.3
12.5°	536.7	440.0	375.8	330.0	302.5	289.2	280.0	275.0	270.8	275.0
15°	536.7	426.7	357.5	316.7	298.3	280.0	265.8	261.7	256.7	256.7
17.5°	531.7	417.5	344.2	302.5	280.0	261.7	252.5	252.5	247.5	247.5
20°	545.8	408.3	335.0	298.3	275.0	261.7	252.5	247.5	243.3	247.5
22.5°	555.0	403.3	330.0	293.3	265.8	247.5	238.3	238.3	243.3	238.3
25°	577.5	408.3	335.0	293.3	265.8	243.3	247.5	247.5	243.3	247.5
27.5°	610.0	412.5	348.3	293.3	261.7	256.7	256.7	265.8	265.8	265.8
30°	646.7	421.7	348.3	293.3	270.8	280.0	289.2	284.2	270.8	275.0
32.5°	720.0	458.3	348.3	298.3	289.2	330.0	330.0	293.3	280.0	275.0
35°	793.3	495.0	362.5	307.5	335.0	403.3	375.8	280.0	183.3	165.0
37.5°	866.7	586.7	380.8	325.8	394.2	467.5	380.8	206.7	115.0	100.8
40°	962.5	720.0	417.5	362.5	445.0	485.8	344.2	197.5	96.7	82.5
42.5°	1050.0	866.7	435.8	390.0	449.2	421.7	325.8	183.3	96.7	82.5
45°	1105.0	930.8	445.0	399.2	417.5	380.8	330.0	142.5	91.7	82.5
47.5°	1095.8	903.3	430.8	380.8	380.8	380.8	344.2	87.5	78.3	73.3
50°	1050.0	843.3	412.5	335.0	385.0	454.2	307.5	45.8	50.8	45.8
52.5°	1008.3	784.2	399.2	316.7	454.2	564.2	188.3	14.2	9.2	9.2
55°	967.5	742.5	412.5	311.7	600.8	610.0	96.7	5.0	0.0	0.0
57.5°	921.7	729.2	440.0	330.0	784.2	518.3	55.0	0.0	0.0	0.0
60°	852.5	692.5	472.5	362.5	747.5	256.7	14.2	0.0	0.0	0.0
62.5°	765.8	632.5	490.8	375.8	394.2	41.7	5.0	0.0	0.0	0.0
65°	715.0	550.0	485.8	192.5	78.3	0.0	0.0	0.0	0.0	0.0
67.5°	674.2	440.0	357.5	5.0	0.0	0.0	0.0	0.0	0.0	0.0
70°	536.7	252.5	78.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
72.5°	284.2	124.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
75°	105.8	23.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	32.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	5.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	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

(END OF REPORT)