

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: P299720

Luminaire Tested: **GLNA-AF-05-LED-E1-SL2-7030-600-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P299720
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24287)
Test Lab: INNOVATION CENTER P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: MCGRAW-EDISON
Catalog Number: GLNA-AF-05-LED-E1-SL2-7030-600-HSS
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(5) 70 CRI, 3000K CCT 600mA LIGHTSQUARE WITH 16 LEDS EACH AND Type II
w/Spill Control WITH HOUSESIDE SHEILD OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 14263.1 lumens
Efficiency: N/A
Efficacy: 88.0 lumens/watt
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')
IES Classification: Type II - Short - Semi-Cutoff
BUG Rating: B1 - U0 - G3

Input Watts (W): 162
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

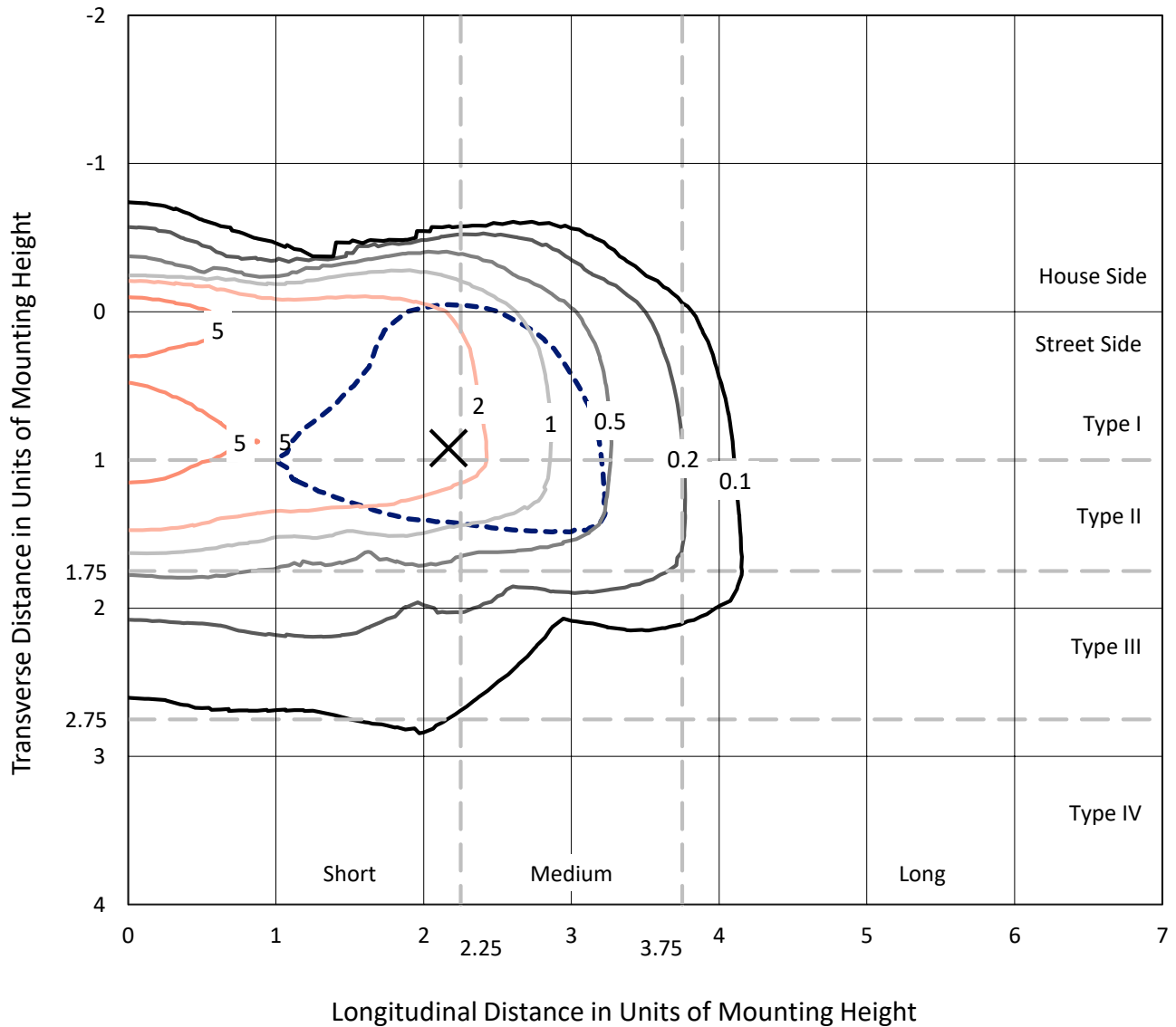


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Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd
 - - - 1/2 Max cd

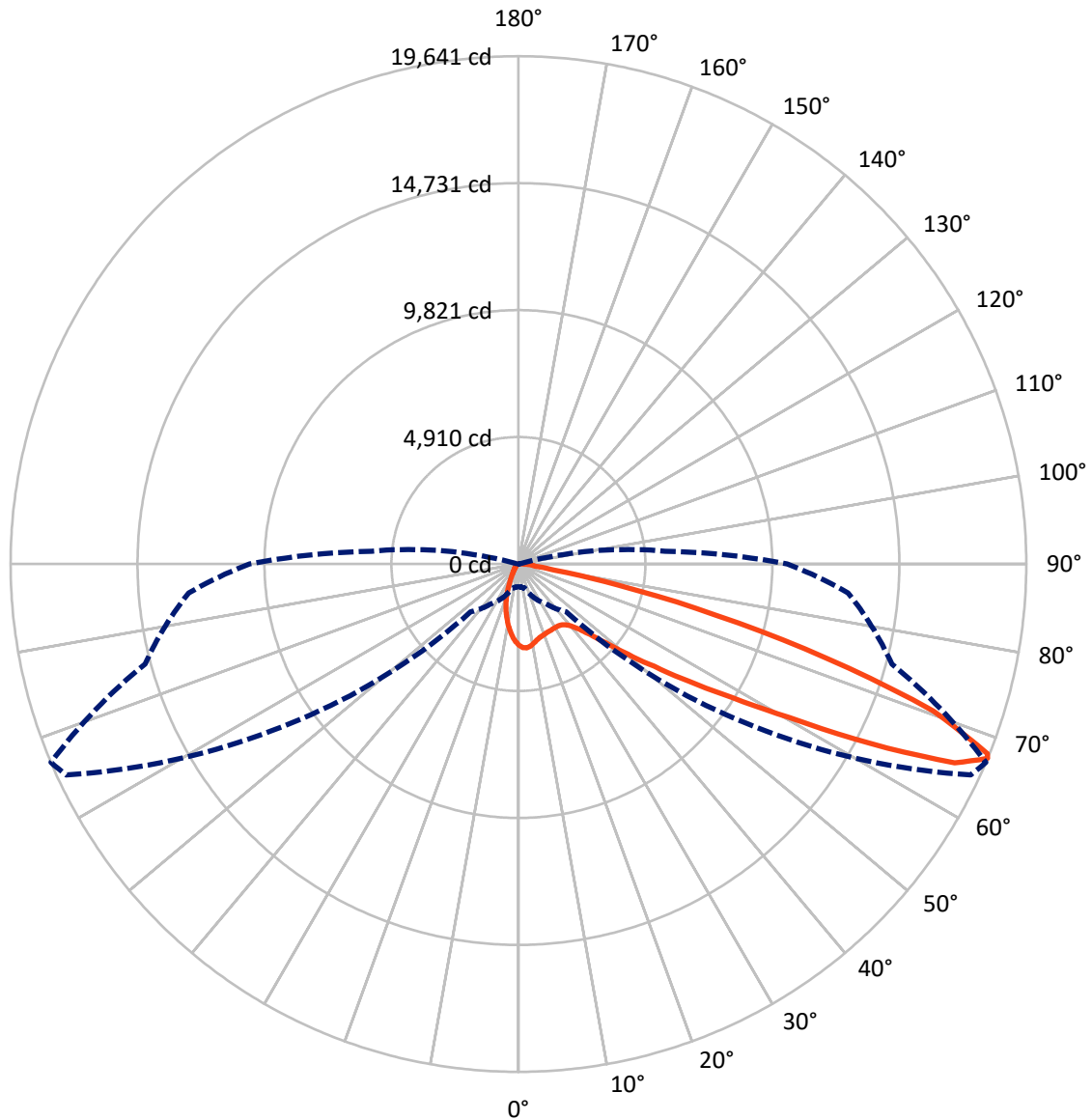


Based on 20 foot mounting height. Maximum calculated value = 7.9 fc
 Type II - Short - Semi-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 67-Deg Lateral - - - Horizontal Cone Through 67-Deg Vertical

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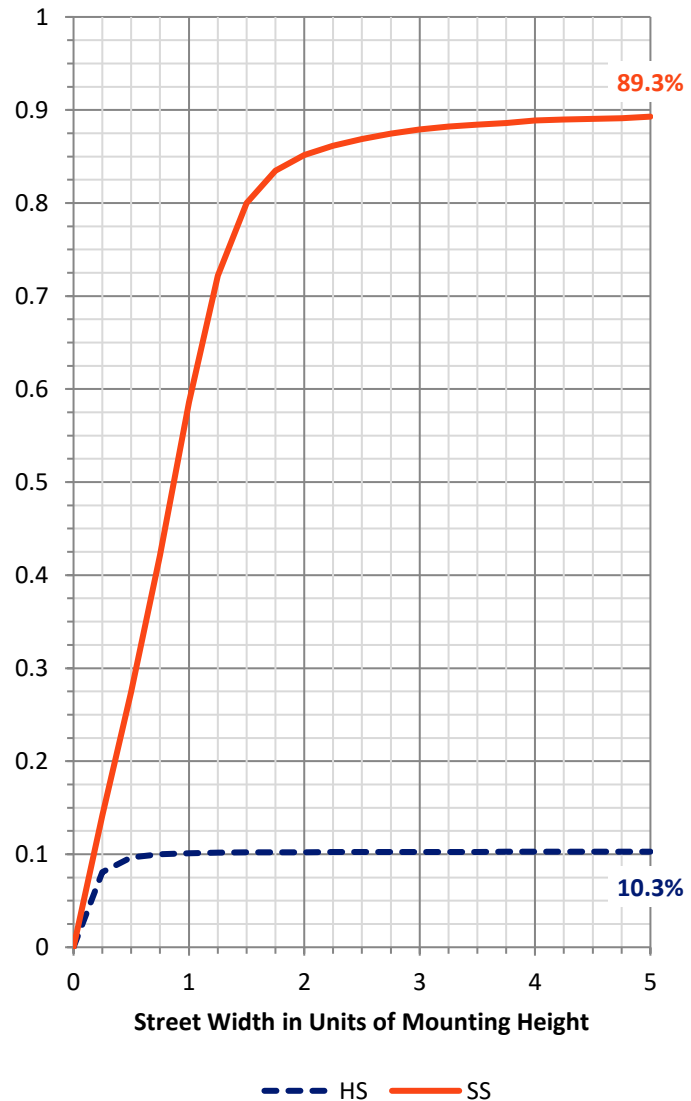
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1480.9	0.0	1480.9
	% Fixture	10.4	0.0	10.4
Street Side	Lumens	12782.2	0.0	12782.2
	% Fixture	89.6	0.0	89.6
Total	Lumens	14263.1	0.0	14263.1
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	255.9	1.8
10°-20°	544.8	3.8
20°-30°	792.0	5.6
30°-40°	1235.6	8.7
40°-50°	2188.8	15.3
50°-60°	3463.5	24.3
60°-70°	3967.0	27.8
70°-80°	1645.5	11.5
80°-90°	170.0	1.2
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°	14263.1	100.0
0°-180°	14263.1	100.0



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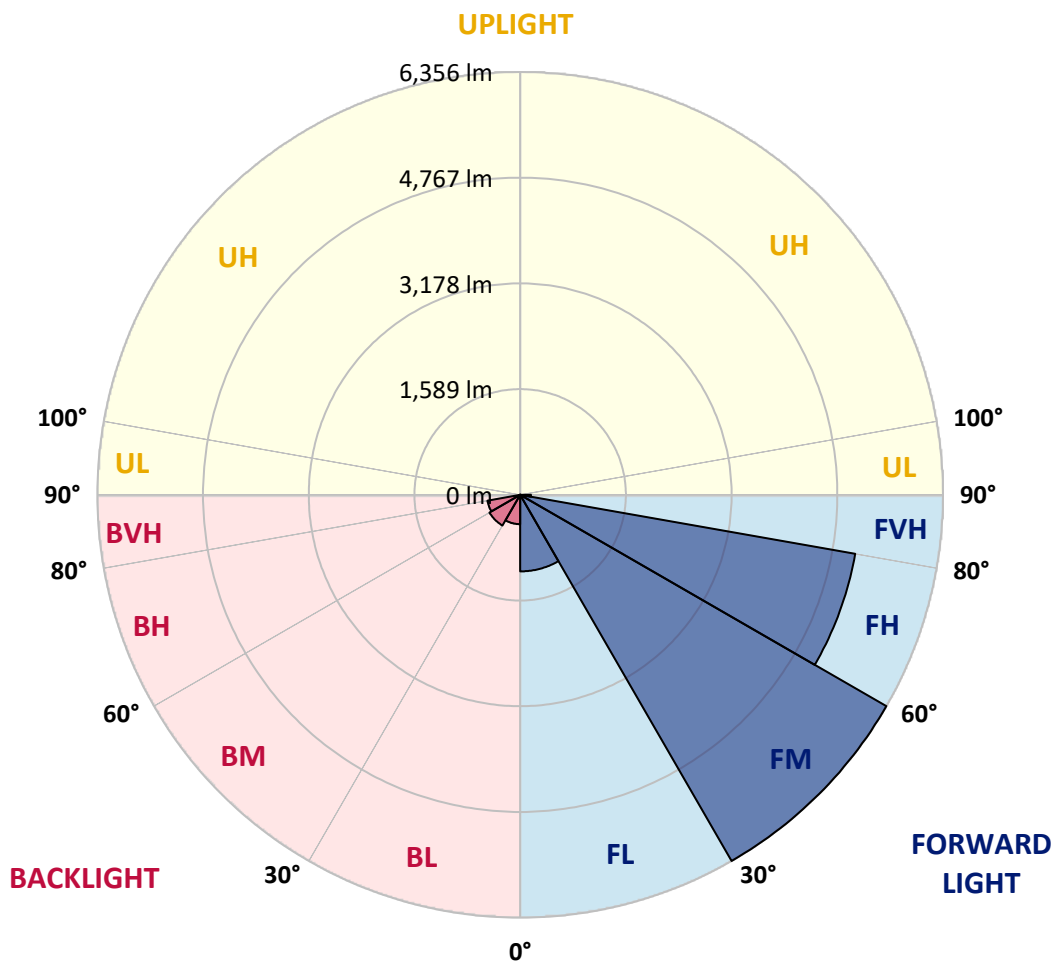
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1150.8	8.1			
FM	(30°-60°)	6355.7	44.6			
FH	(60°-80°)	5113.4	35.9			G3/7500
FVH	(80°-90°)	162.3	1.1			G2/225
BL	(0°-30°)	441.9	3.1	B1/500		
BM	(30°-60°)	532.2	3.7	B1/1000		
BH	(60°-80°)	499.1	3.5	B1/500		G1/500
BVH	(80°-90°)	7.6	0.1			G0/10
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B1-U0-G3

Type II Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	67°	75°	85°
0°	3145.5	3145.5	3145.5	3145.5	3145.5	3145.5	3145.5	3145.5	3145.5	3145.5	3145.5
2.5°	3252.0	3258.7	3257.9	3262.8	3274.5	3275.3	3263.7	3241.2	3236.2	3207.1	3156.4
5°	2999.1	3018.3	3029.9	3077.3	3130.6	3194.6	3242.9	3260.4	3257.9	3237.1	3160.5
7.5°	2710.4	2729.6	2742.9	2798.6	2869.3	2979.2	3104.8	3207.9	3217.1	3239.6	3157.2
10°	2518.3	2521.6	2539.9	2593.1	2667.2	2779.5	2929.2	3109.8	3137.2	3219.6	3148.9
12.5°	2360.2	2362.7	2386.8	2444.2	2523.3	2636.4	2793.6	3002.5	3044.9	3194.6	3147.2
15°	2247.9	2257.0	2278.7	2338.6	2422.6	2534.9	2696.3	2923.4	2974.2	3185.5	3162.2
17.5°	2210.4	2220.4	2227.1	2270.3	2346.9	2456.7	2622.3	2871.8	2929.2	3190.5	3191.3
20°	2249.6	2257.0	2242.1	2252.9	2300.3	2398.5	2559.9	2827.7	2896.0	3196.3	3228.7
22.5°	2395.1	2398.5	2357.7	2310.3	2302.0	2356.0	2510.8	2792.8	2866.0	3212.1	3272.8
25°	2644.7	2638.9	2572.3	2470.0	2373.5	2348.6	2481.7	2771.2	2851.0	3228.7	3318.6
27.5°	2945.9	2954.2	2862.7	2713.8	2529.9	2398.5	2477.5	2762.0	2844.4	3240.4	3358.5
30°	3311.9	3323.6	3218.8	3031.6	2767.8	2521.6	2515.8	2760.4	2840.2	3232.9	3361.8
32.5°	3685.5	3699.6	3617.3	3424.2	3085.6	2727.9	2602.3	2778.7	2848.5	3207.1	3342.7
35°	4076.5	4096.4	4041.5	3876.0	3516.6	3025.7	2754.5	2834.4	2887.6	3204.6	3323.6
37.5°	4616.4	4634.7	4531.5	4356.0	4038.2	3425.1	2999.1	2939.2	2980.0	3244.5	3328.6
40°	5422.5	5420.1	5153.8	4885.1	4611.4	3932.6	3342.7	3128.9	3149.7	3365.2	3390.1
42.5°	6301.1	6296.9	5903.4	5494.9	5247.8	4557.3	3794.5	3456.7	3442.5	3587.3	3549.9
45°	6978.3	6977.4	6656.3	6196.2	6014.1	5274.5	4378.5	3912.6	3891.0	3948.4	3844.4
47.5°	7266.9	7271.9	7110.5	6786.9	6863.5	6244.5	5114.7	4573.1	4540.7	4517.4	4359.3
50°	7042.3	7052.3	7065.6	7002.4	7486.6	7548.1	6102.2	5504.1	5488.3	5384.3	5137.2
52.5°	6308.6	6359.3	6515.7	6716.2	7702.9	8799.4	7650.5	6660.5	6575.6	6465.0	6192.9
55°	5072.3	5128.0	5425.0	5911.7	7380.9	9621.3	9820.2	8151.3	8009.9	7679.6	7286.9
57.5°	3356.9	3443.4	3874.3	4493.3	6445.8	9753.6	11984.8	10220.3	9727.8	8823.5	8380.9
60°	1849.4	1932.6	2400.1	2960.9	4655.5	9099.7	13440.7	12914.1	12043.9	10102.2	9709.5
62.5°	1138.9	1183.8	1529.1	2050.7	2792.0	7182.1	13741.9	16299.3	15291.8	11748.6	11314.3
65°	906.8	925.9	1094.8	1676.3	2001.6	4272.0	12769.4	18879.9	18543.8	13741.9	12751.1
67°	880.2	887.7	967.5	1439.2	1886.8	2618.9	10697.8	19300.0	19641.1	14948.2	12796.0
67.5°	886.0	894.3	970.0	1373.5	1883.5	2406.8	9984.0	19134.5	19565.4	15043.9	12597.2
70°	854.4	880.2	1110.6	1372.7	1791.2	2000.0	5979.1	16578.8	17027.2	13978.2	10688.7
72.5°	302.8	304.5	480.0	1110.6	1947.6	2021.6	3002.5	12153.7	12485.7	10692.9	7706.2
75°	179.7	153.1	159.7	316.1	1861.0	1963.4	1732.1	7766.1	7890.1	6127.2	3902.6
77.5°	124.0	108.2	111.5	139.8	708.8	1935.9	1376.0	4049.9	3917.6	2148.9	831.1
80°	70.7	62.4	66.6	122.3	257.9	1806.1	1297.8	1642.2	1400.1	364.4	229.6
82.5°	37.4	31.6	38.3	100.7	179.7	1125.6	1300.3	793.7	628.9	123.1	156.4
85°	13.3	10.8	18.3	69.1	119.8	345.3	1205.5	667.2	524.1	59.9	119.0
87.5°	2.5	2.5	7.5	28.3	48.3	105.7	713.0	396.0	265.4	35.8	81.5
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°	3145.5	3145.5	3145.5	3145.5	3145.5	3145.5	3145.5	3145.5	3145.5	3145.5	3145.5
2.5°	3135.6	3099.8	3051.5	2992.5	2922.6	2861.0	2815.3	2767.8	2757.9	2741.2	2738.7
5°	3114.8	3053.2	2933.4	2796.1	2649.7	2517.4	2410.1	2314.4	2272.0	2235.4	2231.2
7.5°	3084.0	2991.6	2787.8	2566.5	2337.7	2129.8	1953.4	1828.6	1713.8	1658.9	1650.6
10°	3048.2	2915.9	2623.9	2316.9	2000.8	1707.1	1445.1	1225.4	1092.3	1013.3	1003.3
12.5°	3014.9	2841.9	2456.7	2058.2	1638.1	1245.4	908.5	698.8	559.1	502.5	495.8
15°	2999.1	2782.0	2300.3	1793.7	1258.7	792.8	496.7	384.4	338.6	325.3	324.5
17.5°	2997.5	2731.2	2147.2	1519.9	881.9	460.9	323.6	295.3	286.2	282.9	282.9
20°	2996.6	2683.0	1994.1	1236.3	559.9	307.0	269.5	262.9	256.2	252.1	252.1
22.5°	3005.8	2639.7	1834.4	946.7	352.7	248.7	237.1	230.4	222.1	216.3	215.5
25°	3014.9	2606.5	1671.4	673.9	255.4	216.3	204.7	195.5	183.9	176.4	175.5
27.5°	3016.6	2564.9	1496.6	450.9	213.8	188.8	173.9	159.7	146.4	138.9	138.1
30°	2991.6	2495.0	1302.8	304.5	188.8	163.9	143.9	128.9	116.5	110.6	110.6
32.5°	2942.6	2408.5	1089.8	229.6	168.1	140.6	119.0	104.8	96.5	94.0	93.2
35°	2898.5	2315.3	871.0	194.7	150.6	119.0	97.3	88.2	83.2	82.4	81.5
37.5°	2872.7	2240.4	665.5	176.4	133.9	99.8	82.4	75.7	73.2	71.5	72.4
40°	2892.6	2178.0	491.7	161.4	117.3	83.2	69.9	66.6	64.1	63.2	63.2
42.5°	2980.0	2167.2	365.2	148.1	101.5	69.1	60.7	58.2	56.6	55.7	56.6
45°	3209.6	2233.7	283.7	135.6	85.7	58.2	51.6	50.7	49.9	49.9	49.9
47.5°	3554.9	2371.0	236.3	121.5	71.5	49.9	44.9	44.1	43.3	44.1	44.1
50°	4139.7	2622.3	211.3	107.3	59.1	42.4	38.3	38.3	38.3	38.3	39.1
52.5°	5029.0	3116.4	194.7	93.2	48.3	35.8	32.4	32.4	33.3	33.3	34.1
55°	6019.9	3772.0	179.7	79.0	40.8	29.9	26.6	27.5	28.3	29.1	29.1
57.5°	7094.7	4498.3	167.2	64.9	34.9	24.1	22.5	23.3	24.1	25.8	25.8
60°	8391.7	5284.4	148.9	50.7	29.1	19.1	17.5	19.1	21.6	23.3	24.1
62.5°	9816.0	6044.8	125.6	39.9	24.1	15.0	14.1	17.5	20.8	22.5	23.3
65°	10789.4	6283.6	96.5	32.4	18.3	10.8	11.6	15.8	20.0	22.5	22.5
67°	10395.0	5697.1	79.0	27.5	15.0	8.3	10.8	15.8	20.0	21.6	22.5
67.5°	10121.3	5467.5	75.7	26.6	14.1	8.3	10.8	15.8	20.0	22.5	22.5
70°	8235.3	4107.3	63.2	20.0	11.6	7.5	9.2	15.0	19.1	21.6	21.6
72.5°	5722.0	2532.4	56.6	14.1	10.0	6.7	8.3	14.1	18.3	20.8	21.6
75°	2720.4	916.8	48.3	10.8	9.2	5.8	7.5	14.1	18.3	20.8	20.8
77.5°	554.9	213.0	39.1	9.2	7.5	5.8	6.7	13.3	17.5	20.0	20.0
80°	182.2	82.4	29.1	8.3	7.5	5.8	6.7	12.5	17.5	19.1	20.0
82.5°	131.4	41.6	19.1	8.3	7.5	5.8	5.8	12.5	16.6	19.1	19.1
85°	100.7	29.1	12.5	8.3	7.5	5.8	5.8	11.6	15.8	18.3	18.3
87.5°	66.6	11.6	10.0	8.3	7.5	5.8	5.8	11.6	15.0	17.5	18.3
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)