

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: STREETWORKS

Report Number: P324978

Luminaire Tested: **GAN-SA4D-830-U-AFL-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P324978
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1903-205-30)
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: GAN-SA4D-830-U-AFL-HSS
Description: GALLEON AREA AND ROADWAY LUMINAIRE
(4) 80 CRI, 3000K, 1200mA LIGHTSQUARES WITH 16 LEDS EACH AND AUTOMOTIVE
FRONTLINE OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 20361 lumens
Efficiency: N/A
Efficacy: 78.9 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type II - Short
BUG Rating: B1 - U0 - G2

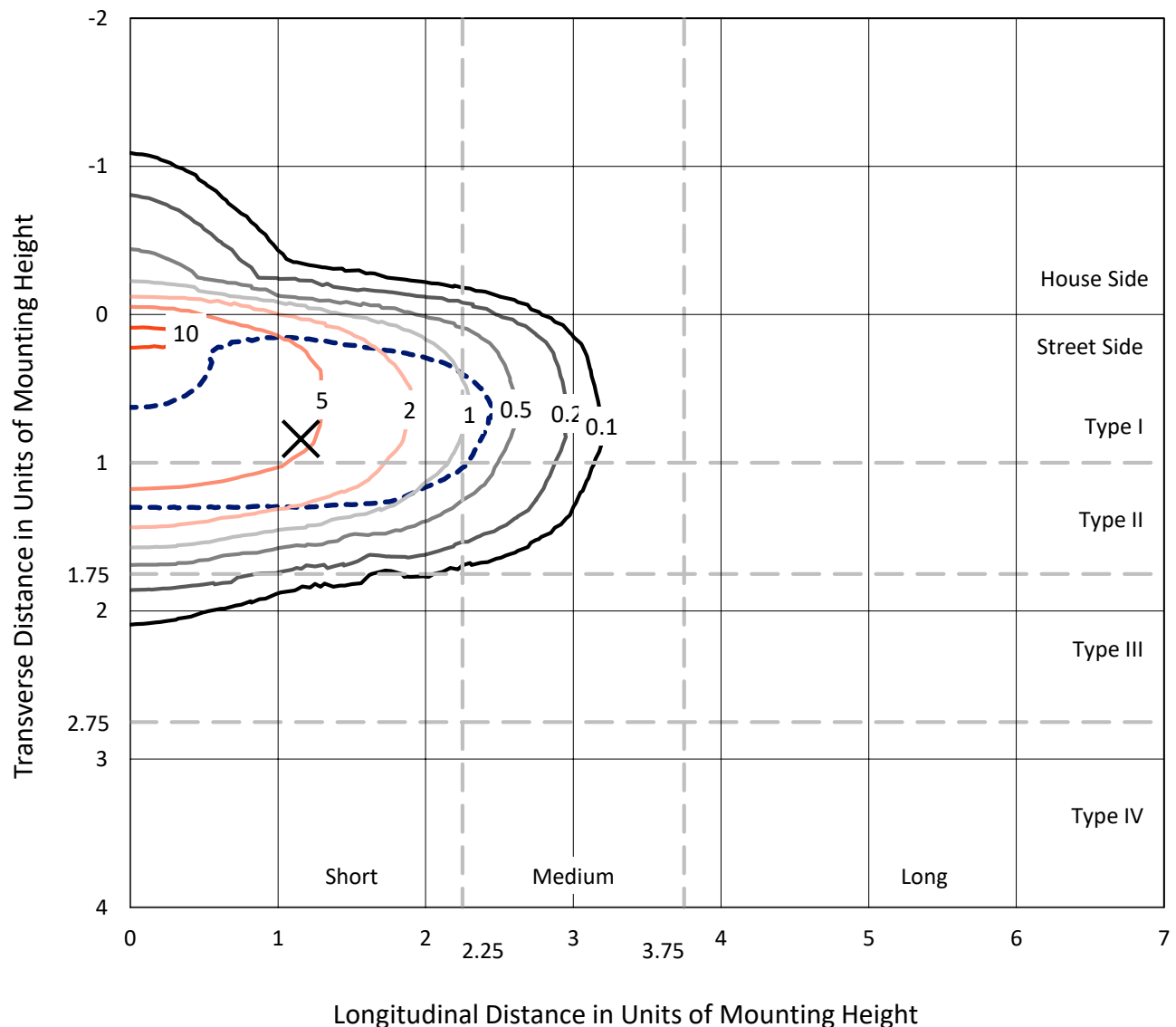
Input Watts (W): 258
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

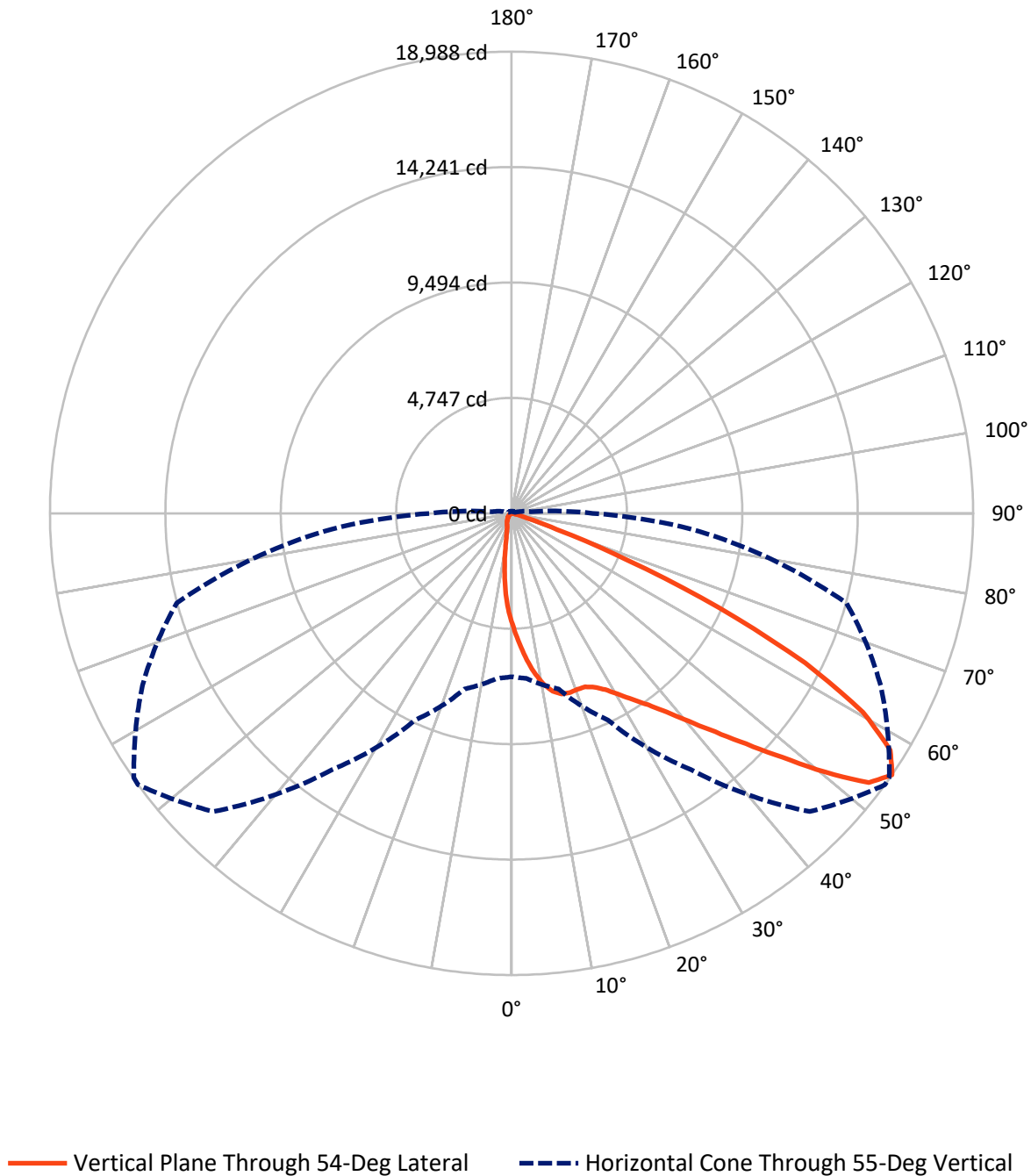
× Max cd
- - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 11.2 fc
Type II - Short - N/A

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Luminous Intensity Polar Plot



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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1015.9	0.0	1015.9
	% Fixture	5.0	0.0	5.0
Street Side	Lumens	19345.1	0.0	19345.1
	% Fixture	95.0	0.0	95.0
Total	Lumens	20361.0	0.0	20361.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	419.9	2.1
10°-20°	1151.7	5.7
20°-30°	1966.3	9.7
30°-40°	3155.5	15.5
40°-50°	5042.6	24.8
50°-60°	5403.2	26.5
60°-70°	2774.2	13.6
70°-80°	420.2	2.1
80°-90°	27.4	0.1
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°	20361.0	100.0
0°-180°	20361.0	100.0

Coefficient of Utilization



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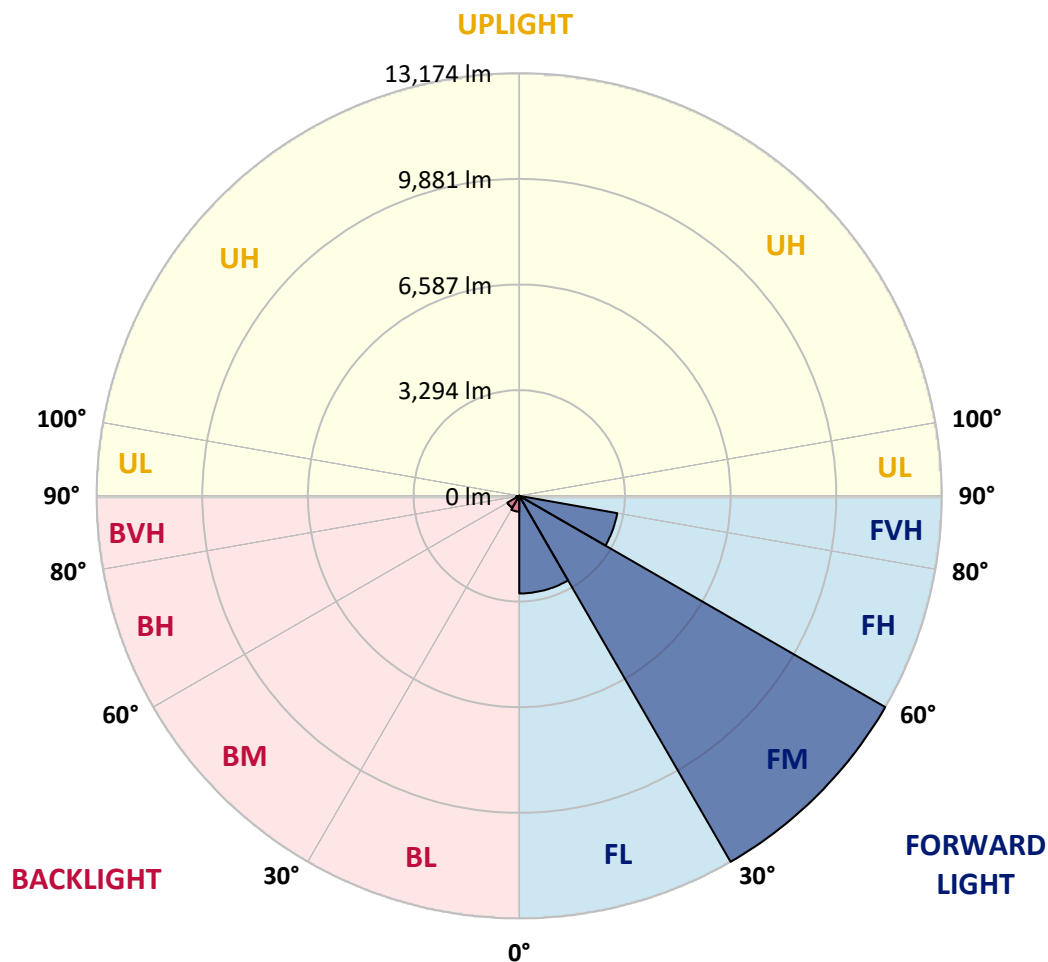
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	3043.6	14.9			
FM	(30°-60°)	13174.5	64.7			
FH	(60°-80°)	3100.8	15.2			G2/5000
FVH	(80°-90°)	26.3	0.1			G1/100
BL	(0°-30°)	494.3	2.4	B1/500		
BM	(30°-60°)	426.9	2.1	B1/1000		
BH	(60°-80°)	93.6	0.5	B0/110		G0/110
BVH	(80°-90°)	1.1	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 II Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	54°	55°	65°	75°	85°
0°	4560.0	4560.0	4560.0	4560.0	4560.0	4560.0	4560.0	4560.0	4560.0	4560.0	4560.0
2.5°	5722.5	5637.2	5639.8	5601.1	5459.6	5348.8	5233.6	5206.3	5027.0	4838.8	4657.6
5°	6711.7	6649.3	6634.3	6559.6	6362.6	6154.2	5930.9	5879.0	5528.2	5143.0	4764.0
7.5°	7219.9	7220.8	7208.5	7181.2	7058.1	6855.9	6583.3	6528.8	6051.3	5473.6	4874.8
10°	7072.2	7105.6	7174.2	7264.8	7358.9	7333.4	7128.5	7079.2	6560.5	5823.6	4997.9
12.5°	6727.5	6731.9	6808.4	6957.0	7227.8	7505.7	7509.2	7492.5	7046.7	6189.4	5133.4
15°	6556.1	6572.8	6600.9	6696.7	6953.5	7398.4	7716.7	7740.5	7492.5	6578.0	5277.6
17.5°	6668.6	6692.3	6668.6	6680.0	6828.6	7228.7	7752.8	7813.5	7882.0	6962.3	5413.8
20°	6973.7	6995.7	6953.5	6906.9	6935.9	7179.5	7727.3	7809.1	8187.2	7303.5	5528.2
22.5°	7385.2	7394.0	7329.8	7253.3	7232.2	7346.5	7748.4	7832.8	8431.6	7612.1	5600.3
25°	7838.1	7846.0	7766.0	7678.0	7627.9	7674.5	7921.6	7984.9	8647.0	7906.7	5641.6
27.5°	8331.4	8338.4	8238.2	8130.0	8072.0	8073.7	8207.4	8275.1	8876.5	8242.6	5675.0
30°	8852.8	8849.3	8756.9	8606.6	8532.7	8531.0	8618.9	8687.5	9208.9	8673.4	5720.7
32.5°	9438.4	9431.4	9300.4	9113.9	9030.4	9042.7	9121.0	9160.5	9621.3	9132.4	5802.5
35°	10209.5	10189.3	9991.5	9760.2	9606.3	9601.9	9667.9	9699.6	10147.1	9688.1	5938.8
37.5°	11210.2	11191.7	10923.5	10587.6	10371.3	10290.4	10368.7	10409.1	10897.2	10401.2	6157.7
40°	12196.8	12178.3	12019.1	11711.4	11378.1	11183.8	11245.4	11288.4	11833.6	11266.5	6433.8
42.5°	12877.3	12893.2	12948.6	12974.1	12661.9	12253.9	12282.1	12326.9	12817.5	12191.5	6749.5
45°	13056.7	13091.0	13404.0	14018.7	14135.6	13817.3	13522.7	13547.4	13817.3	13116.5	7065.2
47.5°	12517.7	12581.0	13185.1	14328.2	15318.3	15543.4	14985.9	14953.4	14776.6	13864.8	7289.4
50°	11292.8	11350.9	12133.5	13824.3	15677.0	17191.2	16739.2	16643.4	15618.1	14312.4	7368.5
52.5°	9520.2	9590.5	10226.3	12238.1	15000.8	17926.3	18399.3	18319.3	16235.4	14347.5	7381.7
55°	6723.1	6808.4	7481.1	9379.5	12858.0	17341.5	18987.6	18963.9	16748.0	14254.3	7409.9
57.5°	3778.3	3839.9	4565.3	6012.6	9417.3	15104.6	18373.0	18530.4	17057.5	14092.5	7452.1
60°	1677.7	1694.4	2069.9	2993.1	5513.2	11543.4	16613.5	16879.0	16792.0	13876.2	7523.3
62.5°	930.3	916.2	916.2	1244.2	2396.1	7146.1	13547.4	13986.1	15658.6	13620.3	7526.8
65°	728.9	715.7	677.9	683.2	912.7	3171.6	9381.2	10161.2	13506.0	12870.3	7273.6
67.5°	618.1	606.7	568.9	554.0	567.1	1046.4	5154.5	5964.3	10248.2	10920.9	6300.2
70°	522.3	514.4	495.0	476.6	443.2	517.0	1972.3	2522.7	6315.1	7264.8	4300.7
72.5°	420.3	416.8	423.8	408.0	367.5	344.7	674.4	816.9	2836.6	3242.0	1771.8
75°	362.3	360.5	364.0	348.2	302.5	240.0	342.9	374.6	800.2	793.1	358.8
77.5°	235.7	238.3	301.6	294.6	260.3	160.0	177.6	191.7	242.7	182.0	109.0
80°	150.4	148.6	153.0	244.4	233.9	122.2	88.8	93.2	116.9	89.7	52.8
82.5°	91.4	89.7	100.2	114.3	117.8	85.3	54.5	55.4	73.0	58.0	28.1
85°	7.9	10.6	60.7	56.3	40.4	26.4	26.4	28.1	38.7	34.3	15.8
87.5°	0.0	0.0	10.6	15.8	8.8	9.7	9.7	10.6	14.9	14.9	7.9
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°	4560.0	4560.0	4560.0	4560.0	4560.0	4560.0	4560.0	4560.0	4560.0	4560.0	4560.0
2.5°	4563.6	4472.1	4287.5	4109.8	3959.5	3814.4	3649.1	3485.5	3409.0	3378.3	3346.6
5°	4571.5	4383.3	4002.6	3619.2	3221.8	2863.9	2558.8	2245.7	2089.2	2020.6	1989.0
7.5°	4582.0	4295.4	3679.9	3036.2	2396.1	1910.7	1486.9	1214.3	1096.5	1078.0	1032.3
10°	4583.8	4189.0	3305.3	2392.6	1606.5	1151.9	886.3	745.6	693.8	685.0	670.0
12.5°	4587.3	4063.2	2889.4	1771.8	1071.0	770.3	641.0	594.4	580.3	579.5	579.5
15°	4597.9	3931.3	2457.6	1276.7	769.4	610.2	562.8	544.3	539.0	541.6	540.8
17.5°	4597.9	3775.7	2033.8	951.4	621.7	548.7	522.3	510.0	508.2	510.9	511.8
20°	4564.4	3586.7	1645.2	740.4	551.3	509.1	485.4	473.9	469.5	471.3	472.2
22.5°	4484.4	3354.5	1328.6	612.9	504.7	473.1	447.6	430.0	422.9	423.8	423.8
25°	4359.6	3079.3	1039.3	530.2	466.9	434.4	404.5	384.3	379.9	379.0	380.7
27.5°	4199.5	2775.1	827.4	466.9	422.1	391.3	361.4	344.7	341.2	342.0	342.9
30°	4042.1	2459.4	652.4	413.3	371.9	342.9	320.1	312.2	312.2	314.8	315.7
32.5°	3897.9	2156.0	516.1	366.7	327.1	300.7	287.5	286.7	291.0	292.8	293.7
35°	3774.0	1875.5	427.3	330.6	291.9	269.1	264.7	268.2	273.5	277.0	277.9
37.5°	3686.0	1624.9	373.7	300.7	264.7	246.2	245.3	252.4	259.4	267.3	269.1
40°	3649.1	1413.0	336.8	274.3	242.7	228.6	226.0	235.7	248.8	260.3	262.0
42.5°	3618.3	1239.8	305.1	248.8	225.1	204.9	204.0	216.3	232.1	243.6	246.2
45°	3591.9	1100.9	276.1	221.6	202.2	175.9	178.5	194.3	206.6	218.9	221.6
47.5°	3537.4	986.6	244.4	192.6	167.1	150.4	155.6	169.7	179.4	197.8	200.5
50°	3439.8	893.4	211.9	157.4	136.3	130.1	138.1	147.7	160.0	175.9	177.6
52.5°	3373.9	823.0	183.8	131.9	112.6	114.3	122.2	125.7	132.8	138.9	137.2
55°	3336.1	784.3	160.9	114.3	95.8	101.1	102.9	98.5	95.0	88.8	86.2
57.5°	3331.7	749.2	143.3	99.4	84.4	87.1	80.9	65.9	53.6	46.6	44.8
60°	3324.6	706.1	129.3	83.5	74.7	71.2	58.0	36.1	25.5	23.7	23.7
62.5°	3248.1	639.3	118.7	70.3	63.3	53.6	33.4	16.7	14.1	14.9	14.9
65°	3004.6	546.0	108.2	57.2	50.1	38.7	16.7	9.7	5.3	6.2	6.2
67.5°	2554.4	435.3	96.7	44.0	37.8	24.6	9.7	4.4	0.0	0.0	0.0
70°	1710.2	269.9	81.8	30.8	24.6	14.9	7.0	0.9	0.0	0.0	0.0
72.5°	656.0	146.0	65.9	18.5	15.8	10.6	4.4	0.0	0.0	0.0	0.0
75°	147.7	95.8	45.7	13.2	11.4	7.0	1.8	0.0	0.0	0.0	0.0
77.5°	56.3	69.5	26.4	8.8	7.9	4.4	0.0	0.0	0.0	0.0	0.0
80°	27.3	41.3	12.3	5.3	4.4	1.8	0.0	0.0	0.0	0.0	0.0
82.5°	14.1	15.8	5.3	2.6	1.8	0.0	0.0	0.0	0.0	0.0	0.0
85°	7.9	7.9	2.6	1.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	4.4	2.6	0.9	0.9	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)