

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: LUMARK

Report Number: P196473

Luminaire Tested: **NAV-AF-03-D-UNV-AFL-7030-800-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P196473
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24283)
Test Lab: INNOVATION CENTER P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-AF-03-D-UNV-AFL-7030-800-HSS
Description: NAVION ROADWAY AND AREA LUMINAIRE
(3) 70 CRI, 3000K, 800mA 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: 11880.9 lumens
Efficiency: N/A
Efficacy: 95.8 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1.5' x H: 0')
IES Classification: Type II - Short - Full Cutoff
BUG Rating: B1 - U0 - G2

Input Watts (W): 124
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

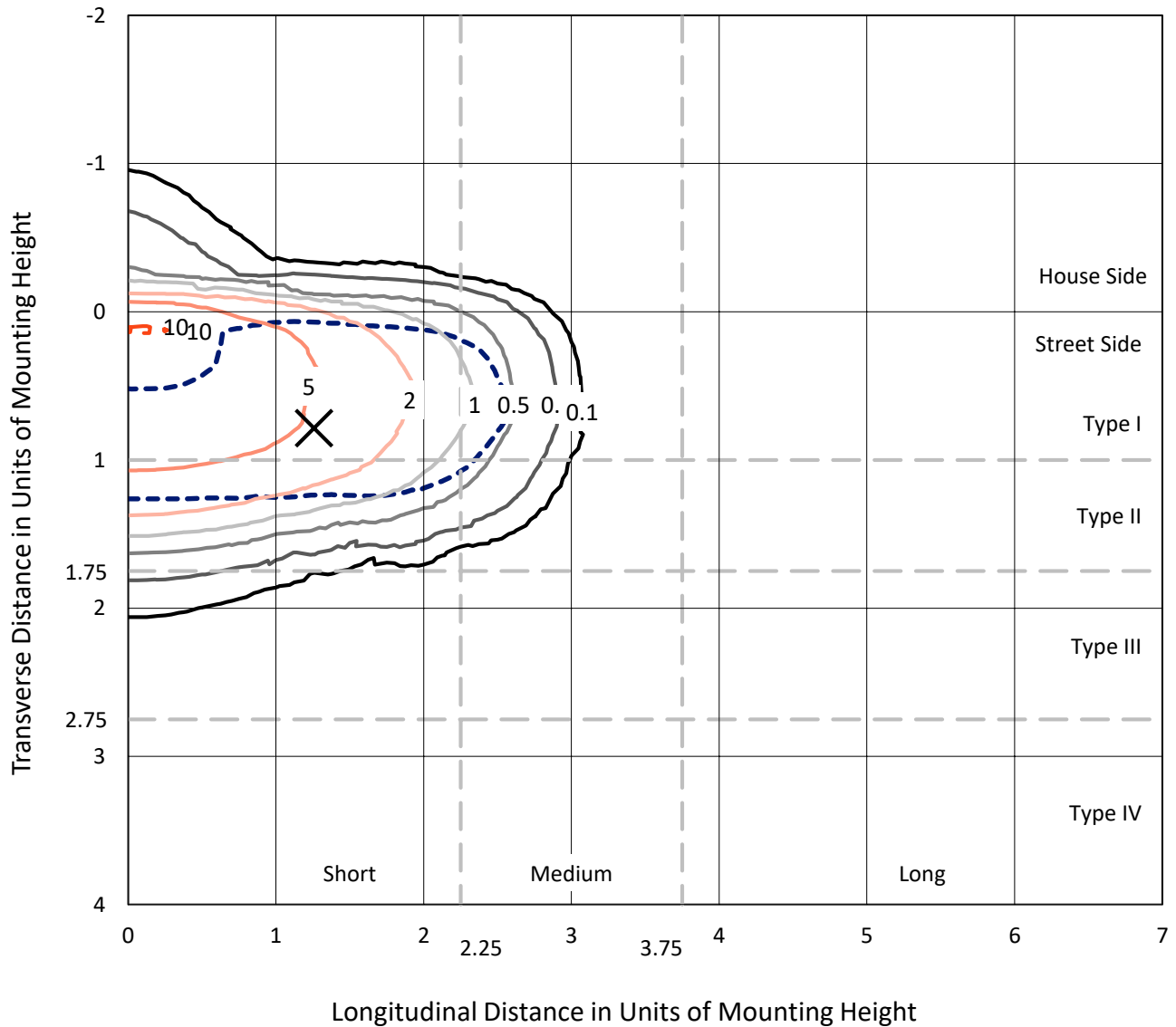


REPORT NUMBER: P196473

CATALOG NUMBER: NAV-AF-03-D-UNV-AFL-7030-800-HSS

Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd
 - - - 1/2 Max cd

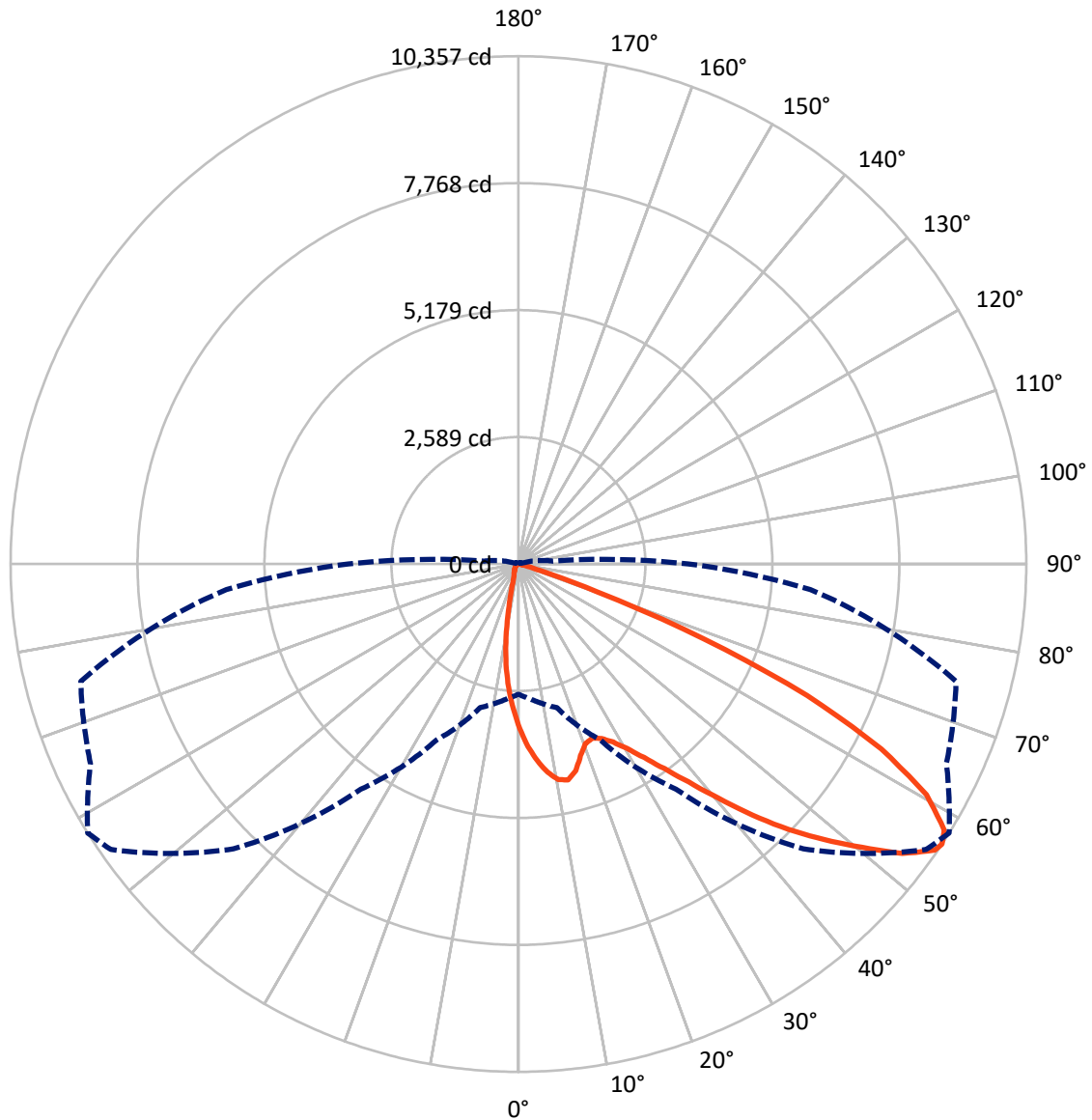


Based on 20 foot mounting height. Maximum calculated value = 10.5 fc
 Type II - Short - Full Cutoff

REPORT NUMBER: P196473

CATALOG NUMBER: NAV-AF-03-D-UNV-AFL-7030-800-HSS

Luminous Intensity Polar Plot



— Vertical Plane Through 58-Deg Lateral - - - Horizontal Cone Through 56-Deg Vertical

REPORT NUMBER: P196473

CATALOG NUMBER: NAV-AF-03-D-UNV-AFL-7030-800-HSS

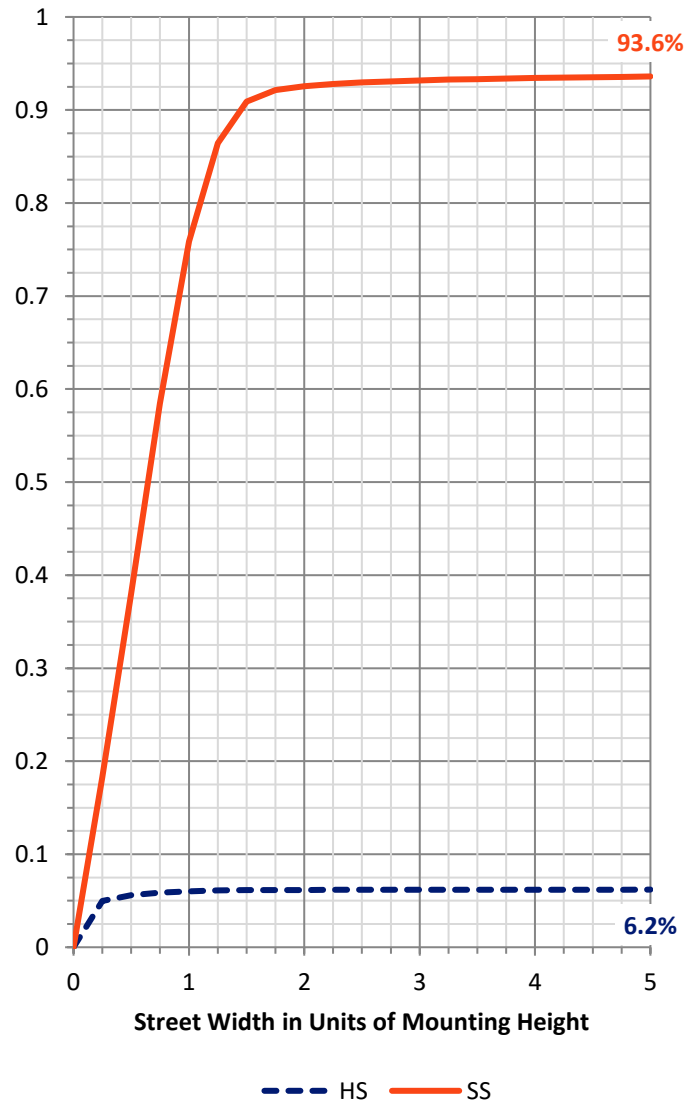
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	741.6	0.0	741.6
	% Fixture	6.2	0.0	6.2
Street Side	Lumens	11139.2	0.0	11139.2
	% Fixture	93.8	0.0	93.8
Total	Lumens	11880.9	0.0	11880.9
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	287.0	2.4
10°-20°	667.7	5.6
20°-30°	1123.5	9.5
30°-40°	1923.9	16.2
40°-50°	2903.2	24.4
50°-60°	3017.8	25.4
60°-70°	1694.1	14.3
70°-80°	232.2	2.0
80°-90°	31.5	0.3
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°	11880.9	100.0
0°-180°	11880.9	100.0

Coefficient of Utilization



REPORT NUMBER: P196473

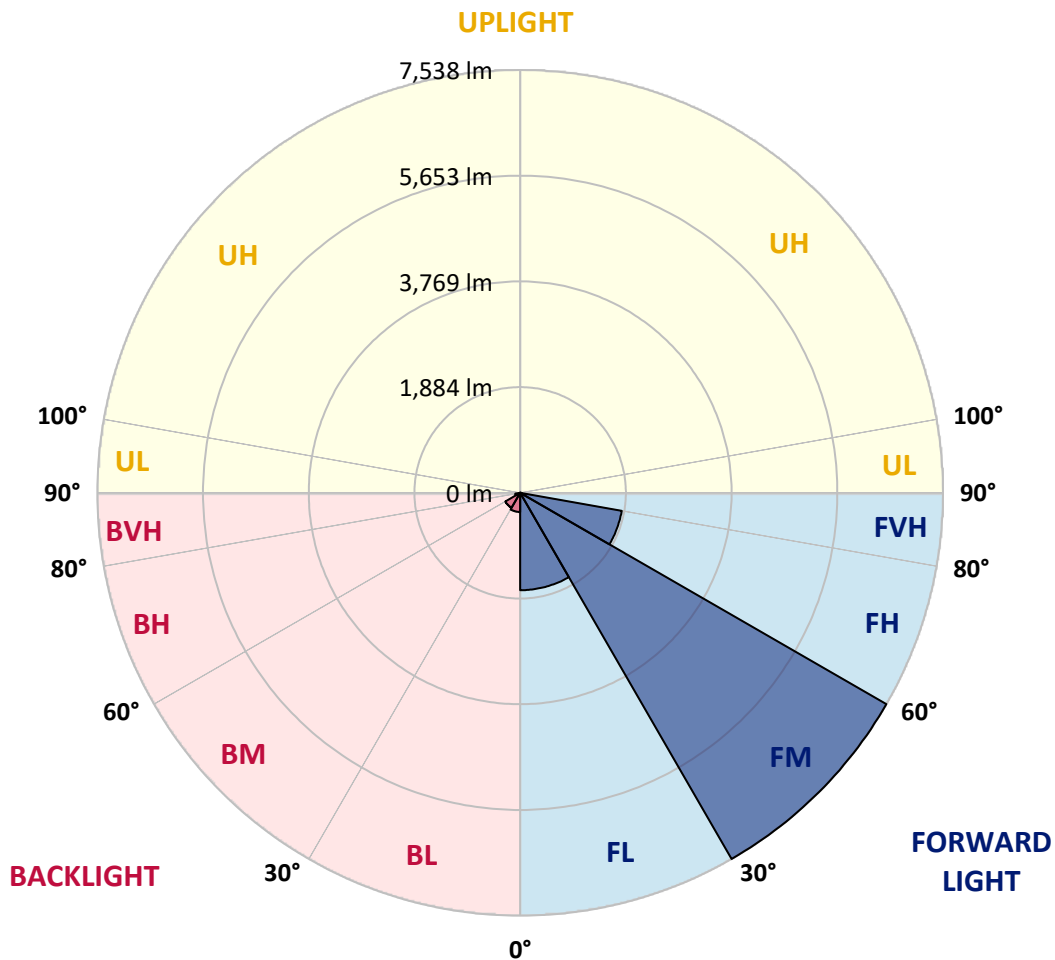
CATALOG NUMBER: NAV-AF-03-D-UNV-AFL-7030-800-HSS

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1736.1	14.6			
FM	(30°-60°)	7537.7	63.4			
FH	(60°-80°)	1838.4	15.5			G2/5000
FVH	(80°-90°)	27.1	0.2			G1/100
BL	(0°-30°)	342.1	2.9	B1/500		
BM	(30°-60°)	307.2	2.6	B1/1000		
BH	(60°-80°)	88.0	0.7	B0/110		G0/110
BVH	(80°-90°)	4.4	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





REPORT NUMBER: P196473

CATALOG NUMBER: NAV-AF-03-D-UNV-AFL-7030-800-HSS

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	58°	65°	75°	85°
0°	3363.9	3363.9	3363.9	3363.9	3363.9	3363.9	3363.9	3363.9	3363.9	3363.9	3363.9
2.5°	4047.3	4022.8	3997.5	3950.3	3906.8	3839.7	3747.3	3724.6	3652.1	3532.5	3420.9
5°	4396.3	4391.7	4374.5	4336.5	4289.3	4207.7	4103.4	4033.8	3921.4	3732.8	3517.9
7.5°	4189.6	4227.7	4290.2	4379.0	4438.8	4430.7	4350.9	4290.2	4178.7	3921.4	3613.1
10°	3531.5	3538.8	3624.9	3811.6	4107.2	4382.7	4486.9	4470.6	4368.1	4086.3	3696.5
12.5°	3299.5	3304.0	3324.0	3383.8	3575.9	3960.3	4432.5	4517.8	4509.5	4243.9	3785.3
15°	3317.5	3320.3	3325.8	3344.8	3399.2	3592.2	4157.0	4373.6	4600.3	4393.6	3872.3
17.5°	3460.8	3459.0	3441.7	3423.6	3440.9	3504.4	3876.0	4104.5	4581.2	4519.5	3943.9
20°	3740.1	3749.1	3691.1	3610.4	3568.7	3571.3	3737.3	3908.6	4474.2	4617.4	3997.5
22.5°	4132.5	4138.8	4043.6	3904.1	3781.7	3720.1	3766.2	3857.0	4350.9	4708.1	4041.0
25°	4601.1	4601.1	4467.8	4269.5	4080.0	3945.0	3904.9	3939.5	4303.8	4810.4	4084.4
27.5°	5106.9	5125.1	4951.0	4690.8	4440.8	4243.1	4118.0	4111.7	4340.1	4939.3	4133.4
30°	5657.1	5673.5	5466.8	5148.7	4852.2	4599.3	4407.2	4365.5	4478.7	5112.3	4205.1
32.5°	6204.7	6218.3	5989.8	5665.3	5320.0	5022.6	4769.7	4703.6	4728.0	5365.2	4310.2
35°	6900.9	6903.5	6614.3	6228.3	5859.2	5510.3	5190.4	5125.1	5097.8	5684.3	4461.5
37.5°	7454.6	7432.9	7249.8	6884.4	6461.1	6096.7	5720.6	5635.4	5570.1	6133.0	4696.3
40°	7585.1	7585.1	7558.0	7448.3	7112.0	6761.2	6396.8	6270.0	6125.7	6661.5	5011.7
42.5°	7245.2	7267.0	7446.4	7684.9	7687.6	7462.7	7106.6	6999.5	6745.7	7263.3	5356.2
45°	6484.7	6491.1	6921.7	7565.2	8002.1	8130.8	7868.0	7720.3	7368.6	7888.8	5671.6
47.5°	6211.0	6230.9	6414.1	7200.8	8025.6	8672.0	8598.6	8395.5	7945.0	8459.8	5966.2
50°	5790.4	5814.9	6038.8	6664.2	7813.5	9019.2	9297.4	9079.9	8469.9	8935.8	6112.2
52.5°	4784.3	4822.2	5138.7	5954.4	7283.3	9033.7	9937.3	9806.9	9007.4	9190.5	6094.9
55°	3292.2	3320.3	3689.2	4648.2	6213.7	8590.4	10212.9	10302.7	9486.9	9247.6	6011.6
56°	2655.9	2761.1	3031.2	3960.3	5604.6	8213.3	10149.5	10357.1	9629.2	9238.5	5975.3
57.5°	1755.8	1775.7	2070.4	2869.8	4500.5	7394.7	9863.1	10241.1	9812.2	9192.3	5949.0
60°	825.8	834.8	940.9	1324.3	2435.6	5388.8	8932.2	9559.4	9879.3	9095.3	5948.1
62.5°	538.4	540.3	553.0	631.8	996.2	2935.0	7404.8	8307.6	9323.7	9084.5	5930.9
65°	443.3	447.8	432.3	442.4	521.1	1106.8	5222.9	6476.6	8019.3	8828.8	5736.8
67.5°	390.7	391.5	370.7	358.9	381.7	485.8	2631.4	4085.3	5998.0	7501.7	4725.4
70°	356.1	355.3	331.7	304.7	305.5	322.7	857.4	1696.9	3318.5	4454.3	2713.0
72.5°	316.3	318.2	304.7	266.5	253.8	228.5	322.7	457.8	1129.4	1430.4	715.2
75°	277.4	273.7	260.1	235.7	212.1	153.2	162.2	194.9	294.6	291.8	154.0
77.5°	210.4	206.7	213.0	201.2	165.8	107.0	88.8	101.5	133.3	124.2	62.5
80°	160.4	158.7	145.0	172.2	151.4	80.7	60.7	62.5	72.5	66.2	30.8
82.5°	116.1	115.2	109.7	106.1	96.0	58.9	46.2	48.9	54.4	46.2	22.6
85°	44.5	44.5	86.1	72.5	66.2	39.9	32.7	35.4	41.7	33.6	15.4
87.5°	7.2	7.2	58.0	48.1	29.9	20.0	20.9	22.6	24.5	20.0	11.8
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



REPORT NUMBER: P196473

CATALOG NUMBER: NAV-AF-03-D-UNV-AFL-7030-800-HSS

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	3363.9	3363.9	3363.9	3363.9	3363.9	3363.9	3363.9	3363.9	3363.9	3363.9	3363.9
2.5°	3354.8	3294.0	3160.8	3032.1	2919.6	2796.4	2733.8	2661.3	2634.1	2579.7	2585.2
5°	3389.2	3262.3	2994.9	2713.0	2454.6	2191.7	2005.0	1829.2	1731.3	1634.3	1634.3
7.5°	3424.5	3230.6	2817.2	2366.8	1931.6	1481.1	1162.1	906.5	764.2	669.0	666.3
10°	3449.0	3189.9	2615.1	1965.1	1323.4	763.1	460.5	362.6	327.2	311.8	311.0
12.5°	3480.8	3149.0	2384.9	1492.1	735.1	362.6	287.4	271.9	265.6	262.0	262.0
15°	3508.0	3091.0	2105.7	1003.4	386.1	271.9	247.5	242.0	241.1	240.3	241.1
17.5°	3514.4	3008.5	1771.2	587.4	280.1	237.5	226.6	222.2	222.2	221.1	221.1
20°	3499.8	2899.7	1401.4	362.6	242.0	218.4	206.7	201.2	200.3	200.3	200.3
22.5°	3469.8	2761.1	1036.1	274.7	220.2	201.2	185.8	180.4	180.4	181.3	182.3
25°	3432.7	2597.0	711.6	236.5	204.0	183.1	167.7	162.2	164.1	165.8	166.8
27.5°	3385.6	2401.2	465.9	204.9	182.3	165.0	151.4	147.7	151.4	155.0	156.8
30°	3338.4	2186.4	315.4	177.6	157.8	145.0	136.9	135.9	141.4	149.5	150.4
32.5°	3307.6	1966.1	238.4	159.5	138.6	127.9	124.2	125.9	134.2	143.2	145.0
35°	3304.9	1751.2	203.0	145.0	125.9	116.1	114.1	119.6	128.7	135.9	137.7
37.5°	3347.4	1550.1	184.0	134.2	116.1	106.1	103.4	113.3	121.5	128.7	130.6
40°	3433.6	1369.7	171.3	124.2	107.8	96.0	94.3	102.3	110.6	118.8	121.5
42.5°	3541.5	1201.1	156.8	114.1	98.8	85.2	83.4	89.7	97.9	109.7	111.5
45°	3634.8	1044.2	141.4	103.4	88.8	73.4	72.5	79.8	86.1	97.0	98.8
47.5°	3713.7	913.7	126.8	91.6	76.2	65.2	64.4	68.0	71.6	81.6	83.4
50°	3671.9	803.2	112.4	75.3	61.6	56.2	55.2	55.2	59.9	69.8	71.6
52.5°	3569.6	734.2	98.8	62.5	50.8	48.1	45.4	46.2	50.8	55.2	56.2
55°	3487.1	701.6	87.0	55.2	42.6	39.9	37.1	36.3	37.1	35.4	33.6
56°	3467.2	697.9	84.3	53.4	40.8	37.1	33.6	31.6	30.8	27.2	26.3
57.5°	3458.0	697.9	79.8	49.8	38.0	33.6	29.0	25.3	21.8	19.0	19.0
60°	3450.9	702.5	74.3	43.4	32.7	27.2	20.9	15.4	12.7	12.7	12.7
62.5°	3435.4	700.7	68.0	36.3	28.1	20.9	12.7	10.0	9.1	10.0	10.9
65°	3262.3	650.8	59.9	29.0	21.8	14.5	7.2	7.2	8.2	10.0	10.9
67.5°	2628.7	493.1	48.9	22.6	15.4	10.9	6.3	6.3	8.2	10.0	10.9
70°	1444.0	260.1	41.7	16.3	11.8	9.1	6.3	5.5	8.2	10.0	10.9
72.5°	352.6	108.8	38.0	12.7	10.9	8.2	5.5	5.5	8.2	10.0	10.9
75°	87.0	81.6	30.8	10.0	9.1	7.2	5.5	5.5	8.2	10.0	10.9
77.5°	40.8	107.8	20.9	9.1	8.2	6.3	5.5	5.5	8.2	10.0	10.0
80°	24.5	81.6	12.7	8.2	7.2	6.3	5.5	5.5	8.2	10.0	10.9
82.5°	14.5	23.6	9.1	8.2	7.2	5.5	5.5	5.5	8.2	10.0	10.9
85°	12.7	11.8	9.1	8.2	7.2	6.3	5.5	5.5	9.1	10.9	10.9
87.5°	10.0	9.1	8.2	7.2	7.2	6.3	5.5	5.5	8.2	10.0	10.9
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)