

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: P196913

Luminaire Tested: **NAV-AF-05-D-UNV-5NQ-8030**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P196913  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24130)  
Test Lab: INNOVATION CENTER P2  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: LUMARK  
Catalog Number: NAV-AF-05-D-UNV-5NQ-8030  
Description: NAVION ROADWAY AND AREA LUMINAIRE  
(5) 80 CRI, 3000K, 1050mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE V  
NARROW OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 25224 lumens  
Efficiency: N/A  
Efficacy: 90.4 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1.5' x H: 0')  
IES Classification: Type V - Short - Full Cutoff  
BUG Rating: B4 - U0 - G2

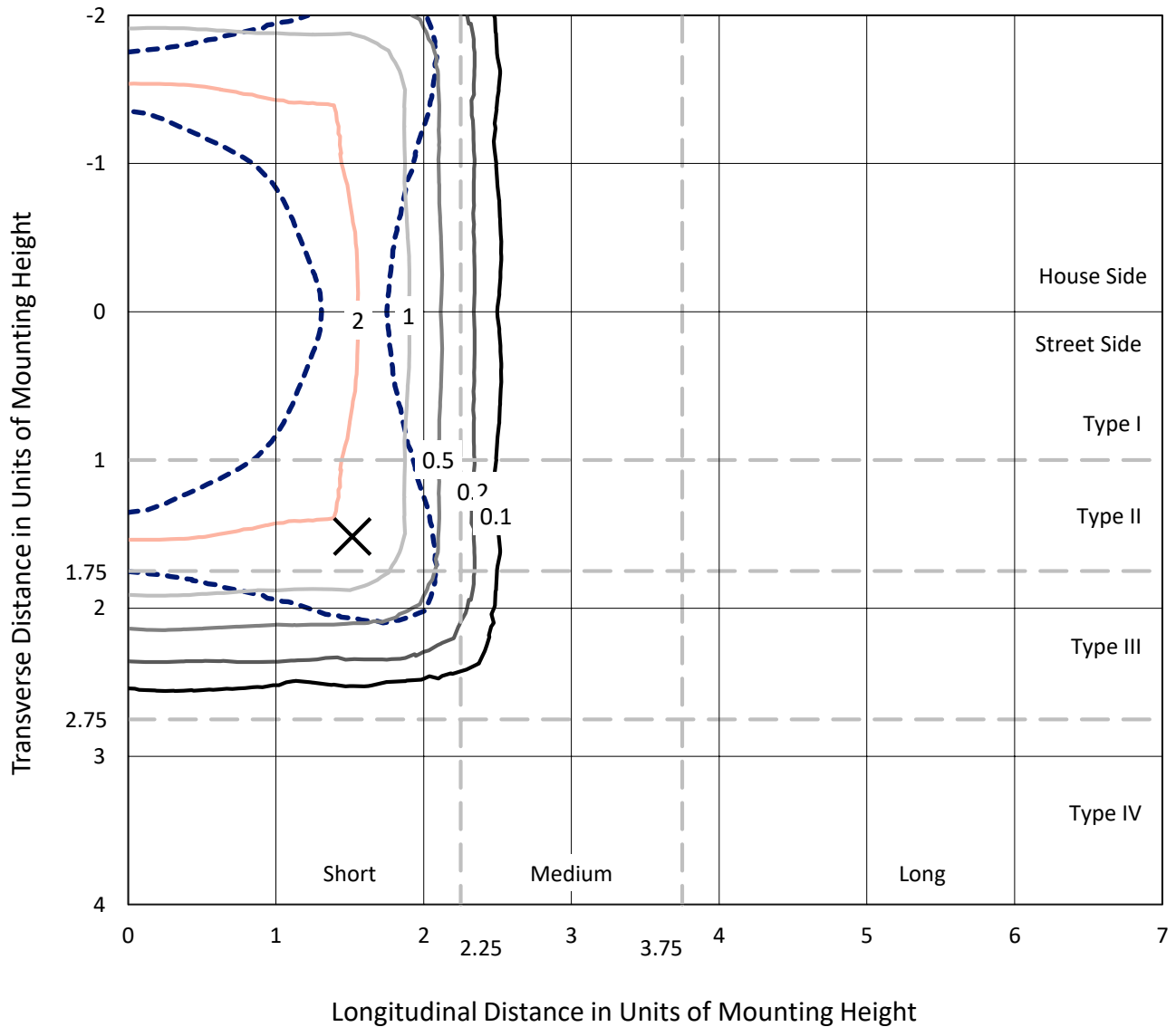
Input Watts (W): 279  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Iso-Footcandle Lines of Horizontal Illumination

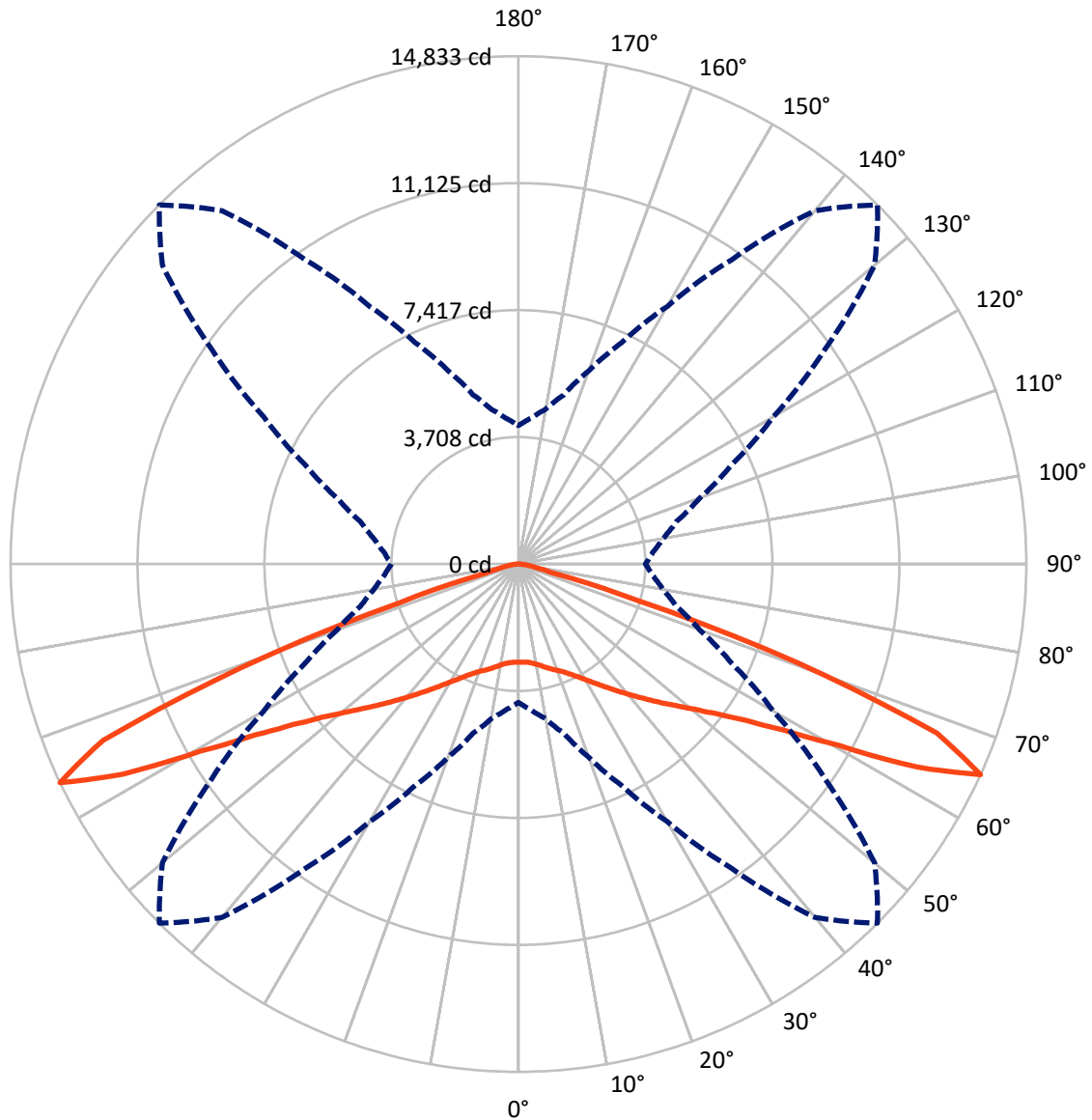
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 4.6 fc  
 Type V - Short - Full Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 45-Deg Lateral      - - - Horizontal Cone Through 65-Deg Vertical

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**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	12612.0	0.0	12612.0
	% Fixture	50.0	0.0	50.0
<b>Street Side</b>	Lumens	12612.0	0.0	12612.0
	% Fixture	50.0	0.0	50.0
<b>Total</b>	Lumens	25224.0	0.0	25224.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	279.4	1.1
10°-20°	895.5	3.6
20°-30°	1670.5	6.6
30°-40°	2816.8	11.2
40°-50°	4575.3	18.1
50°-60°	7168.7	28.4
60°-70°	6766.9	26.8
70°-80°	912.0	3.6
80°-90°	138.9	0.6
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°	25224.0	100.0
0°-180°	25224.0	100.0

**Coefficient of Utilization**



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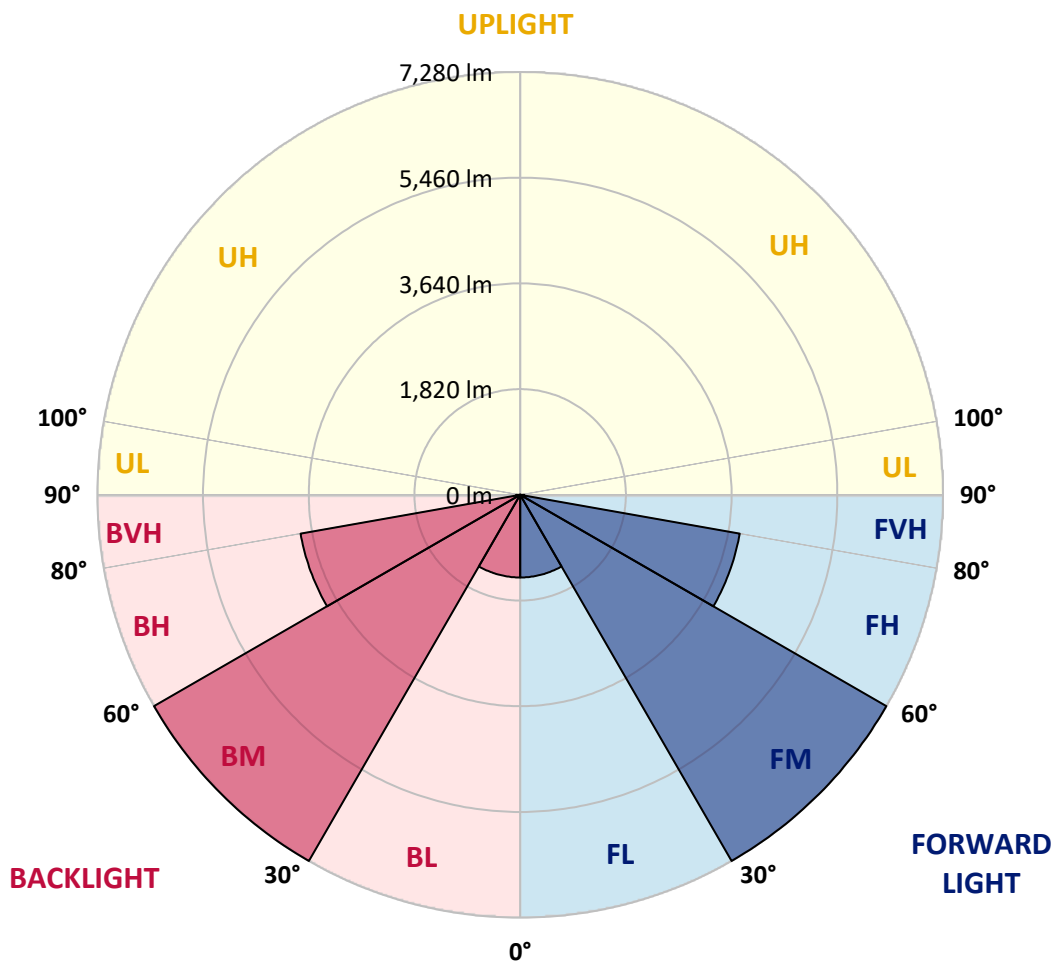
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1422.7	5.6			
FM	(30°-60°)	7280.4	28.9			
FH	(60°-80°)	3839.4	15.2			G2/5000
FVH	(80°-90°)	69.5	0.3			G1/100
BL	(0°-30°)	1422.7	5.6	B3/2500		
BM	(30°-60°)	7280.4	28.9	B4/8500		
BH	(60°-80°)	3839.4	15.2	B4/5000		G2/5000
BVH	(80°-90°)	69.5	0.3			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B4-U0-G2**

Type V Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	2869.2	2869.2	2869.2	2869.2	2869.2	2869.2	2869.2	2869.2	2869.2	2869.2	2869.2
2.5°	2892.8	2892.8	2897.5	2895.9	2889.6	2884.9	2880.2	2873.9	2870.8	2867.6	2866.1
5°	2908.5	2908.5	2913.2	2911.6	2906.9	2900.6	2897.5	2892.8	2888.1	2884.9	2886.5
7.5°	2947.8	2949.3	2950.9	2949.3	2944.6	2939.9	2933.6	2932.1	2925.8	2921.1	2924.2
10°	3007.5	3007.5	3009.0	3010.6	3007.5	2996.5	2996.5	2993.3	2987.0	2980.8	2982.3
12.5°	3073.5	3073.5	3075.0	3075.0	3075.0	3068.8	3070.3	3068.8	3060.9	3057.8	3060.9
15°	3137.9	3139.5	3139.5	3142.6	3142.6	3144.2	3150.5	3150.5	3147.3	3145.7	3145.7
17.5°	3213.3	3216.5	3218.0	3222.7	3224.3	3227.5	3233.7	3235.3	3236.9	3232.2	3233.7
20°	3313.9	3315.5	3320.2	3321.7	3328.0	3328.0	3331.2	3329.6	3326.4	3320.2	3320.2
22.5°	3427.0	3430.2	3439.6	3439.6	3447.4	3442.7	3444.3	3439.6	3431.7	3428.6	3425.4
25°	3574.7	3579.4	3587.3	3584.1	3587.3	3579.4	3579.4	3579.4	3574.7	3570.0	3568.4
27.5°	3761.7	3753.8	3761.7	3755.4	3753.8	3747.6	3749.1	3746.0	3741.3	3739.7	3733.4
30°	3956.5	3947.1	3951.8	3953.4	3950.3	3948.7	3942.4	3937.7	3929.8	3931.4	3926.7
32.5°	4179.7	4170.2	4175.0	4176.5	4173.4	4176.5	4175.0	4164.0	4154.5	4160.8	4160.8
35°	4445.2	4438.9	4451.5	4456.2	4446.8	4442.1	4435.8	4423.2	4409.1	4418.5	4420.1
37.5°	4764.2	4756.3	4765.8	4778.3	4761.0	4751.6	4726.5	4707.6	4698.2	4702.9	4709.2
40°	5095.7	5097.3	5124.0	5127.2	5108.3	5097.3	5072.2	5043.9	5017.2	5017.2	5025.0
42.5°	5444.6	5449.3	5480.7	5491.7	5485.4	5465.0	5430.4	5395.9	5361.3	5367.6	5377.0
45°	5839.0	5832.7	5865.7	5892.4	5887.7	5881.4	5848.4	5785.5	5754.1	5752.5	5768.3
47.5°	6253.8	6266.4	6300.9	6346.5	6344.9	6329.2	6286.8	6228.6	6170.5	6175.2	6194.1
50°	6737.7	6755.0	6813.2	6858.7	6865.0	6860.3	6810.0	6742.5	6660.8	6665.5	6690.6
52.5°	7171.4	7196.6	7264.1	7358.4	7416.6	7443.3	7410.3	7347.4	7264.1	7268.8	7295.6
55°	7564.3	7603.5	7704.1	7832.9	7949.2	8057.6	8106.4	8104.8	8043.5	8057.6	8092.2
57.5°	7810.9	7865.9	8018.4	8225.8	8456.8	8675.2	8863.7	9041.3	9080.6	9154.4	9154.4
60°	7479.4	7608.3	7810.9	8166.1	8620.2	9110.4	9641.5	10158.5	10491.6	10754.0	10612.6
62.5°	6245.9	6436.1	6720.5	7188.7	7895.8	8771.0	9837.9	11040.0	12293.9	13060.7	12498.1
65°	4041.4	4280.2	4589.8	5116.2	6007.1	7133.7	8687.7	10848.3	13472.4	14833.1	13576.1
67.5°	1601.2	1763.0	1951.6	2325.5	3098.6	4204.8	5949.0	8613.9	11896.3	13180.1	11770.6
70°	765.2	791.9	828.1	908.2	1101.5	1486.5	2390.0	4244.1	7295.6	8648.5	7121.1
72.5°	553.1	557.8	575.1	601.8	658.4	736.9	895.6	1297.9	2515.7	3658.0	2518.8
75°	419.5	425.8	435.3	449.4	479.2	517.0	576.7	691.4	861.1	993.1	859.5
77.5°	319.0	325.3	333.1	347.3	363.0	389.7	411.7	457.2	529.5	557.8	554.7
80°	232.6	243.6	256.1	268.7	279.7	292.3	293.8	315.8	356.7	383.4	375.5
82.5°	147.7	157.1	190.1	204.3	205.8	209.0	207.4	209.0	231.0	249.8	243.6
85°	94.3	100.6	117.8	133.6	130.4	136.7	136.7	133.6	124.1	106.8	127.3
87.5°	47.1	48.7	56.6	70.7	67.6	59.7	58.1	58.1	42.4	36.1	39.3
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):**

	55°	60°	65°	70°	75°	80°	85°	90°
0°	2869.2	2869.2	2869.2	2869.2	2869.2	2869.2	2869.2	2869.2
2.5°	2861.3	2864.5	2859.8	2859.8	2858.2	2861.3	2856.6	2856.6
5°	2883.3	2888.1	2886.5	2886.5	2889.6	2892.8	2891.2	2889.6
7.5°	2922.6	2925.8	2928.9	2930.5	2933.6	2932.1	2935.2	2933.6
10°	2982.3	2979.2	2983.9	2979.2	2980.8	2977.6	2979.2	2979.2
12.5°	3057.8	3053.0	3049.9	3046.8	3046.8	3040.5	3040.5	3042.0
15°	3144.2	3136.3	3130.0	3126.9	3123.8	3123.8	3119.0	3122.2
17.5°	3229.0	3221.2	3210.2	3210.2	3205.5	3202.3	3199.2	3207.0
20°	3318.6	3310.7	3304.5	3302.9	3293.5	3290.3	3291.9	3301.3
22.5°	3422.3	3417.6	3417.6	3414.4	3408.2	3403.4	3403.4	3414.4
25°	3562.1	3552.7	3554.3	3555.9	3552.7	3552.7	3549.6	3557.4
27.5°	3733.4	3725.6	3730.3	3733.4	3730.3	3735.0	3730.3	3736.6
30°	3934.5	3929.8	3934.5	3939.3	3931.4	3931.4	3928.3	3933.0
32.5°	4175.0	4168.7	4171.8	4171.8	4160.8	4151.4	4138.8	4148.2
35°	4438.9	4431.1	4437.4	4442.1	4429.5	4420.1	4401.2	4409.1
37.5°	4729.6	4732.8	4740.6	4761.0	4757.9	4742.2	4728.1	4734.3
40°	5054.9	5070.6	5105.2	5119.3	5116.2	5100.5	5081.6	5084.7
42.5°	5422.6	5443.0	5479.1	5502.7	5491.7	5469.7	5446.1	5455.6
45°	5823.3	5854.7	5901.8	5925.4	5911.2	5887.7	5854.7	5872.0
47.5°	6247.5	6310.4	6373.2	6404.6	6399.9	6366.9	6324.5	6329.2
50°	6755.0	6838.3	6918.4	6949.9	6926.3	6876.0	6816.3	6814.7
52.5°	7386.7	7476.3	7542.3	7534.4	7476.3	7397.7	7330.1	7327.0
55°	8175.5	8205.3	8195.9	8128.4	8026.2	7903.7	7817.2	7803.1
57.5°	9129.3	9028.7	8881.0	8676.7	8447.3	8214.8	8057.6	7999.5
60°	10295.2	9841.1	9313.1	8756.9	8249.3	7869.1	7628.7	7482.5
62.5°	11258.4	9943.2	8763.2	7796.8	7006.4	6536.6	6208.2	6005.5
65°	10928.4	8590.3	6880.7	5634.7	4772.0	4286.5	3939.3	3708.3
67.5°	8442.6	5740.0	3994.3	2768.6	2099.3	1777.1	1552.4	1406.3
70°	4256.7	2201.4	1334.0	941.2	804.5	747.9	710.2	688.2
72.5°	1249.2	834.4	692.9	612.8	564.1	529.5	507.5	496.5
75°	691.4	564.1	498.1	452.5	421.1	397.5	383.4	374.0
77.5°	476.1	410.1	377.1	347.3	322.1	304.8	293.8	284.4
80°	333.1	300.1	286.0	270.3	251.4	237.3	221.6	215.3
82.5°	221.6	207.4	204.3	191.7	180.7	165.0	136.7	127.3
85°	130.4	128.8	128.8	124.1	116.3	102.1	81.7	81.7
87.5°	45.6	47.1	48.7	51.9	50.3	42.4	34.6	33.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)