

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: P884848

Luminaire Tested: **NAV-SB5D-835-U-T3-HSS**

Issue Date: 10/7/2024

Test Information

Test Method: LM-79-08
Report Number: P884848
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-6)
Test Lab: INNOVATION CENTER
Issue Date: 10/7/2024
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB5D-835-U-T3-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(5) 80 CRI, 3500K, 900mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE III
OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 34170 lumens
Efficiency: N/A
Efficacy: 93.6 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1.5' x H: 0')
IES Classification: Type III - Short
BUG Rating: B3 - U0 - G4

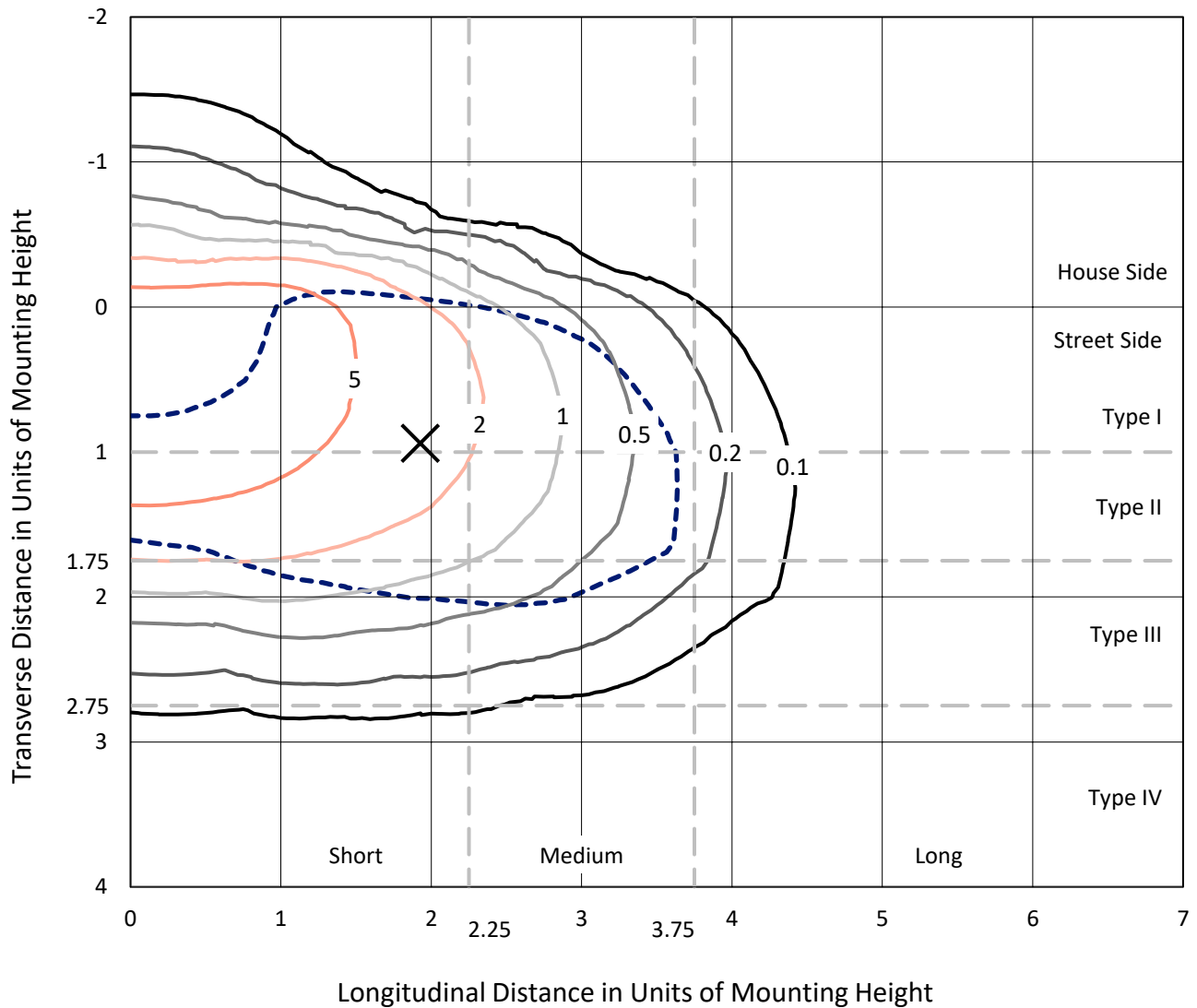
Input Watts (W): 364.9
Input Voltage (V): 120.0
Input Current (Ain): 3.094
Voltage Rise (V): NR
Power Factor: 0.998
Total Harmonic Distortion (THDi): 3.28
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

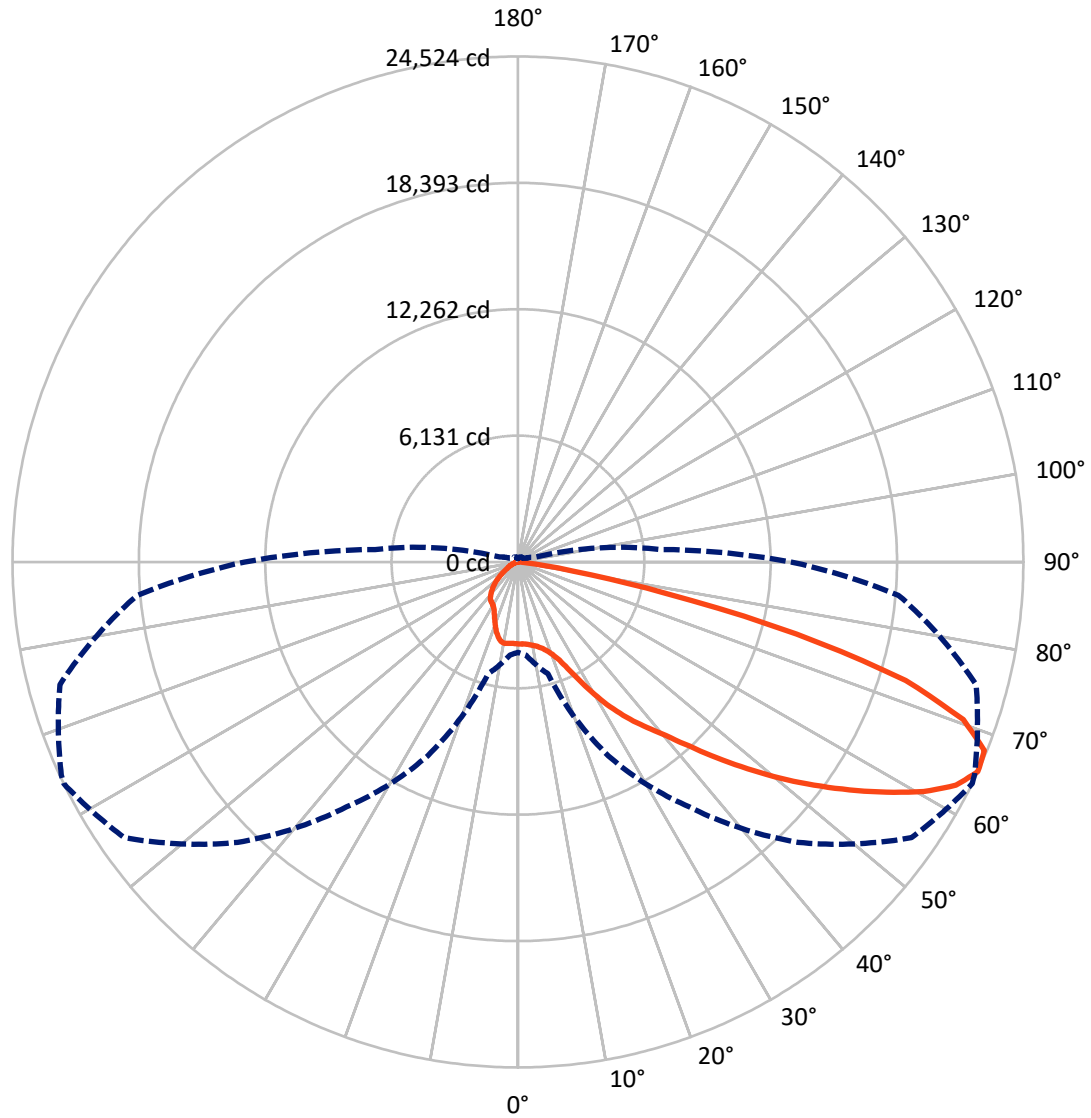
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 10 fc
 Type III - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 64-Deg Lateral - - - Horizontal Cone Through 65-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	4569.6	0.0	4569.6
	% Fixture	13.4	0.0	13.4
Street Side	Lumens	29600.4	0.0	29600.4
	% Fixture	86.6	0.0	86.6
Total	Lumens	34170.0	0.0	34170.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	366.7	1.1
10°-20°	994.5	2.9
20°-30°	1884.5	5.5
30°-40°	3813.4	11.2
40°-50°	6496.1	19.0
50°-60°	8834.3	25.9
60°-70°	8295.8	24.3
70°-80°	3323.7	9.7
80°-90°	161.0	0.5
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°	34170.0	100.0
0°-180°	34170.0	100.0

Coefficient of Utilization



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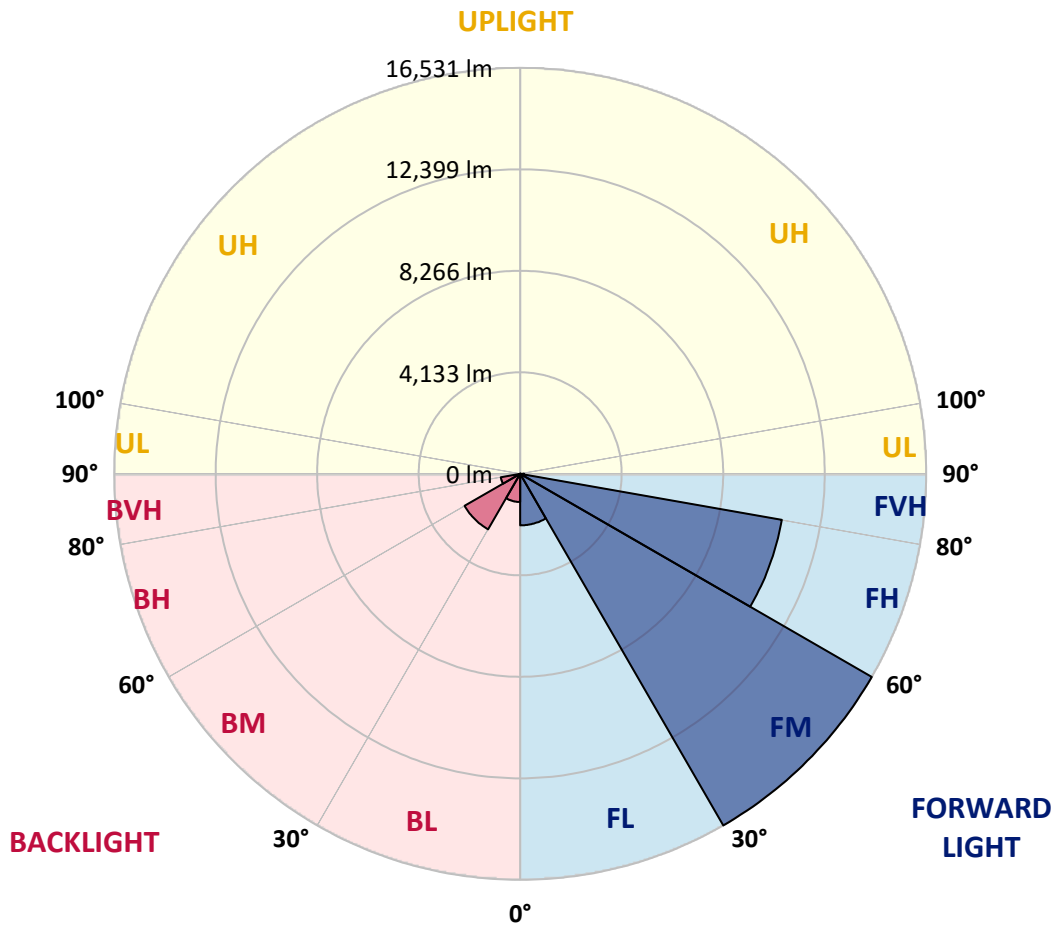
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	2098.4	6.1			
FM (30°-60°)	16531.4	48.4			
FH (60°-80°)	10817.4	31.7			G4/12000
FVH (80°-90°)	153.2	0.4			G2/225
BL (0°-30°)	1147.3	3.4	B3/2500		
BM (30°-60°)	2612.4	7.6	B3/5000		
BH (60°-80°)	802.0	2.3	B2/1000		G2/1000
BVH (80°-90°)	7.9	0.0			G0/10
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G4

Type III Short



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	64°	65°	75°	85°
0°	3974.3	3974.3	3974.3	3974.3	3974.3	3974.3	3974.3	3974.3	3974.3	3974.3	3974.3
2.5°	3960.6	3988.1	3981.2	3974.3	3972.0	3976.6	3978.9	3976.6	3976.6	3976.6	3978.9
5°	3885.0	3907.9	3907.9	3923.9	3946.8	3974.3	3994.9	3999.5	4004.1	4011.0	4008.7
7.5°	3740.7	3759.0	3772.7	3825.4	3882.7	3956.0	4017.8	4049.9	4054.5	4079.7	4088.9
10°	3642.2	3665.1	3688.0	3743.0	3825.4	3935.4	4040.8	4118.6	4130.1	4189.6	4217.1
12.5°	3637.6	3660.5	3690.3	3749.8	3846.0	3962.9	4091.2	4203.4	4224.0	4311.1	4368.3
15°	3685.7	3713.2	3740.7	3814.0	3917.1	4059.1	4196.5	4336.3	4356.9	4480.6	4542.4
17.5°	3784.2	3820.9	3841.5	3914.8	4024.7	4182.8	4363.7	4524.1	4542.4	4686.7	4764.6
20°	3978.9	4022.4	4029.3	4088.9	4196.5	4366.0	4581.4	4780.6	4803.6	4968.5	5055.5
22.5°	4382.1	4443.9	4388.9	4418.7	4514.9	4684.4	4918.1	5170.1	5202.1	5390.0	5467.8
25°	5092.2	5179.2	5037.2	4986.8	5028.0	5204.4	5497.6	5816.0	5852.7	6003.9	6042.8
27.5°	6487.2	6375.0	6159.6	5948.9	5825.2	5926.0	6255.8	6649.8	6695.7	6842.3	6796.4
30°	8019.7	7921.2	7630.2	7162.9	6869.7	6853.7	7158.4	7598.2	7650.9	7790.6	7650.9
32.5°	9554.4	9460.5	9144.4	8569.4	8060.9	7808.9	8019.7	8507.6	8535.1	8624.4	8418.2
35°	11064.0	10967.8	10651.7	10062.9	9437.6	8864.9	8823.7	9373.5	9382.6	9476.5	9169.6
37.5°	12582.7	12502.5	12165.8	11588.5	10972.3	10182.1	9799.5	10193.5	10205.0	10296.6	9978.2
40°	13666.2	13700.5	13469.2	13022.5	12493.4	11629.8	10894.5	11066.3	10997.5	11151.0	10960.9
42.5°	14596.2	14664.9	14463.3	14238.9	13931.9	13171.4	12250.5	12220.8	12110.8	12193.3	11996.3
45°	15400.2	15457.5	15276.5	15223.8	15217.0	14683.2	13732.6	13553.9	13400.5	13384.4	13148.5
47.5°	15695.7	15805.7	15883.6	16059.9	16403.5	16179.1	15265.1	14987.9	14816.1	14690.1	14316.7
50°	15808.0	15924.8	16190.5	16703.6	17516.8	17613.0	16790.7	16479.1	16268.4	16039.3	15489.6
52.5°	15656.8	15865.2	16222.6	17086.2	18265.9	18762.9	18254.4	17981.8	17741.3	17367.9	16552.4
55°	14765.7	14974.2	15704.9	17081.6	18639.2	19569.3	19638.0	19516.6	19246.3	18657.6	17411.4
57.5°	12887.4	13196.6	14353.4	16499.8	18632.4	20263.3	20994.1	21081.1	20778.7	19935.8	18087.2
60°	10285.1	10704.3	12115.4	15210.1	18057.4	20639.0	22182.9	22618.2	22297.5	21195.6	18634.7
62.5°	7176.7	7662.3	8997.8	13189.7	16742.6	20368.7	23051.1	23855.1	23612.3	22322.7	18845.4
65°	4377.5	4533.3	5609.9	10379.1	14506.9	19237.1	23319.1	24524.0	24443.8	23012.1	18533.9
67.5°	2916.0	3046.6	3355.8	7117.1	11261.0	16976.2	22677.7	24407.2	24430.1	22899.9	17393.1
70°	1756.9	1869.2	2070.8	4139.3	7298.1	13437.1	20691.7	22918.2	23051.1	21399.5	15230.7
72.5°	723.9	799.4	982.7	1876.1	3779.6	8528.2	16476.8	19676.9	19986.2	17993.3	11689.3
75°	410.0	449.0	577.3	941.5	1640.1	3974.3	9980.5	13968.6	14424.4	12401.7	7032.4
77.5°	272.6	290.9	373.4	609.3	923.1	1356.1	4265.2	7277.5	8147.9	6773.5	3044.3
80°	183.3	199.3	256.6	407.7	600.2	581.8	1358.4	2696.1	3316.9	2327.3	742.2
82.5°	123.7	126.0	183.3	268.0	380.3	281.8	400.9	838.4	1053.7	673.5	281.8
85°	71.0	68.7	135.1	155.8	169.5	116.8	121.4	252.0	329.9	284.0	160.3
87.5°	9.2	13.7	52.7	41.2	22.9	25.2	25.2	43.5	64.1	68.7	34.4
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°	3974.3	3974.3	3974.3	3974.3	3974.3	3974.3	3974.3	3974.3	3974.3	3974.3	3974.3
2.5°	3978.9	3976.6	3969.7	3962.9	3946.8	3937.7	3942.3	3937.7	3935.4	3937.7	3946.8
5°	4008.7	4001.8	3983.5	3960.6	3928.5	3889.6	3864.4	3827.7	3793.4	3772.7	3777.3
7.5°	4088.9	4082.0	4056.8	3992.7	3889.6	3726.9	3578.0	3447.5	3349.0	3291.7	3294.0
10°	4217.1	4205.7	4166.7	4024.7	3754.4	3399.4	3103.9	2858.8	2698.4	2622.8	2616.0
12.5°	4368.3	4354.6	4285.9	3994.9	3497.9	2943.5	2535.8	2263.2	2114.3	2047.9	2041.0
15°	4547.0	4528.7	4393.5	3852.9	3124.5	2439.6	2066.2	1862.3	1766.1	1706.6	1708.8
17.5°	4769.2	4737.1	4473.7	3639.9	2719.0	2054.7	1777.6	1624.1	1539.3	1482.1	1477.5
20°	5057.8	5005.1	4537.8	3385.6	2345.7	1811.9	1582.9	1454.6	1390.4	1340.0	1330.9
22.5°	5461.0	5385.4	4615.7	3110.7	2082.2	1644.7	1438.5	1344.6	1291.9	1234.7	1225.5
25°	5960.3	5871.0	4711.9	2856.5	1901.3	1500.4	1333.2	1255.3	1193.4	1127.0	1120.1
27.5°	6659.0	6498.7	4826.5	2648.0	1745.5	1376.7	1237.0	1149.9	1078.9	1023.9	1012.5
30°	7437.8	7174.4	4927.2	2522.0	1603.5	1262.2	1111.0	1023.9	957.5	918.6	911.7
32.5°	8175.4	7818.1	4993.7	2467.1	1475.2	1131.6	973.5	879.6	829.2	817.8	824.6
35°	8871.8	8399.9	4986.8	2414.4	1360.7	1001.0	838.4	742.2	703.2	710.1	710.1
37.5°	9673.5	9020.7	4938.7	2331.9	1266.7	881.9	721.6	636.8	602.4	604.7	613.9
40°	10605.8	9737.7	4908.9	2176.1	1163.7	772.0	625.4	556.6	531.4	522.3	520.0
42.5°	11600.0	10431.7	4913.5	1999.8	1035.4	673.5	558.9	501.7	478.8	471.9	469.6
45°	12598.7	11093.8	4920.4	1816.5	900.2	597.9	510.8	462.7	449.0	439.8	439.8
47.5°	13537.9	11657.3	4792.1	1619.5	767.4	540.6	471.9	439.8	428.4	416.9	416.9
50°	14412.9	12032.9	4482.9	1390.4	662.0	494.8	442.1	419.2	407.7	396.3	396.3
52.5°	15093.3	12092.5	3972.0	1154.5	588.7	460.4	423.8	403.2	389.4	378.0	375.7
55°	15395.6	11719.1	3245.9	934.6	531.4	430.6	405.4	384.8	368.8	357.3	355.1
57.5°	15317.8	10933.4	2531.2	751.3	476.5	400.9	382.5	368.8	350.5	332.1	329.9
60°	14935.2	9882.0	1908.1	625.4	426.1	368.8	357.3	345.9	320.7	293.2	288.6
62.5°	14273.2	8560.3	1360.7	517.7	371.1	332.1	327.6	318.4	281.8	231.4	226.8
65°	13260.7	6954.5	916.3	430.6	318.4	290.9	293.2	277.2	229.1	171.8	167.2
67.5°	11781.0	5085.3	586.4	352.8	265.7	242.8	245.1	235.9	194.7	146.6	139.7
70°	9895.7	3367.3	382.5	268.0	213.0	187.8	201.6	203.9	164.9	119.1	114.5
72.5°	7254.6	1988.3	268.0	199.3	155.8	130.6	164.9	169.5	132.9	89.3	84.8
75°	4134.7	943.8	201.6	144.3	96.2	91.6	128.3	128.3	91.6	59.6	55.0
77.5°	1736.3	394.0	142.0	93.9	55.0	52.7	87.0	80.2	45.8	27.5	27.5
80°	501.7	176.4	75.6	45.8	22.9	20.6	34.4	25.2	11.5	4.6	4.6
82.5°	197.0	77.9	29.8	18.3	9.2	9.2	4.6	0.0	0.0	0.0	0.0
85°	116.8	32.1	13.7	6.9	2.3	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	29.8	6.9	4.6	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	0.0

(END OF REPORT)