

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: P270695

Luminaire Tested: **NAV-AF-06-D-UNV-SLR-7027-800**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P270695
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24264)
Test Lab: INNOVATION CENTER P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-AF-06-D-UNV-SLR-7027-800
Description: NAVION ROADWAY AND AREA LUMINAIRE
(6) 70 CRI, 2700K, 800mA LIGHTSQUARES WITH 16 LEDS EACH AND SPILL LIGHT
ELIMINATOR RIGHT OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 22332.7 lumens
Efficiency: N/A
Efficacy: 89.7 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1.5' x H: 0')
IES Classification: Type IV - Short - Non-Cutoff
BUG Rating: B3 - U0 - G4

Input Watts (W): 249
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

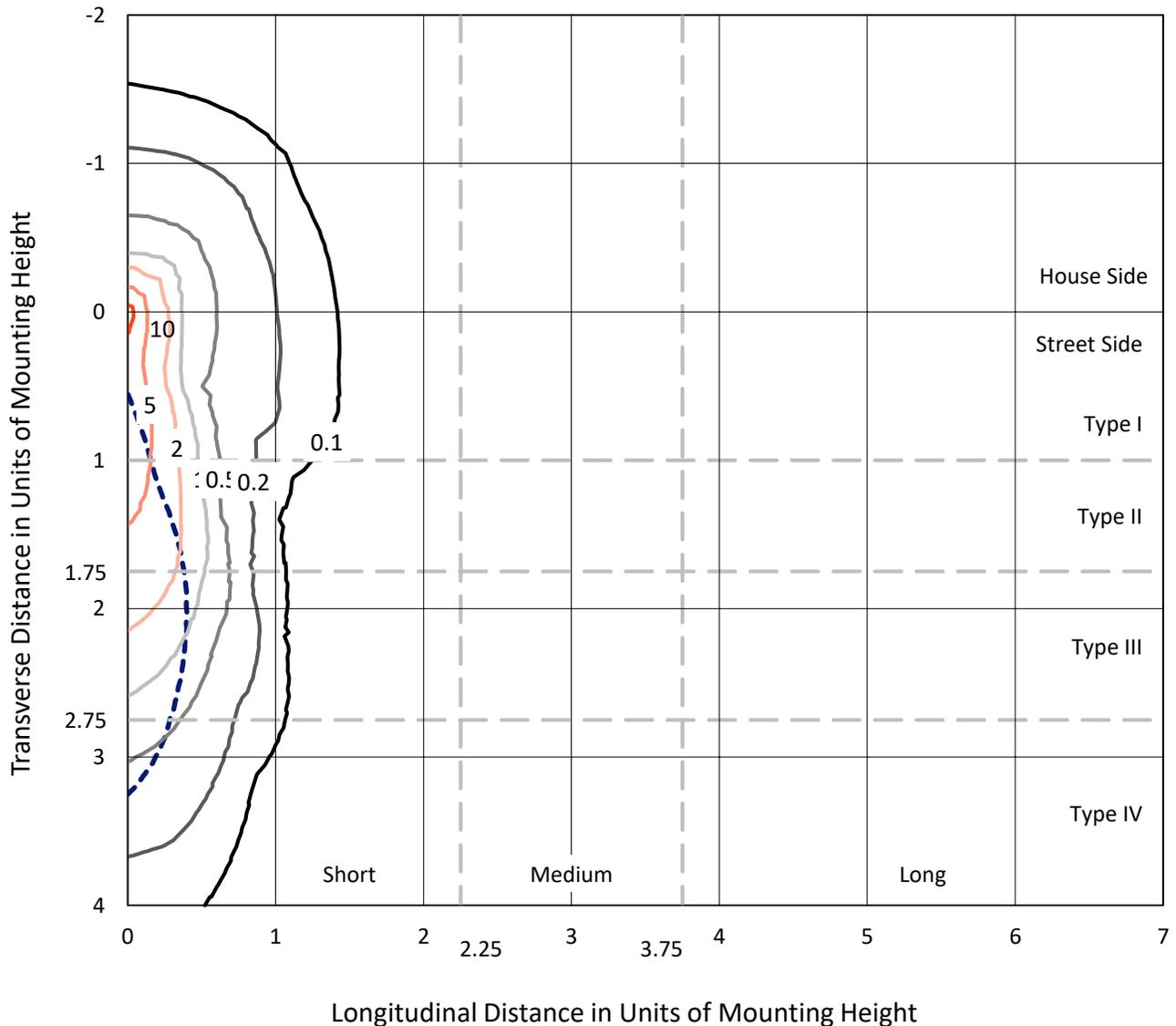


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Iso-Footcandle Lines of Horizontal Illumination

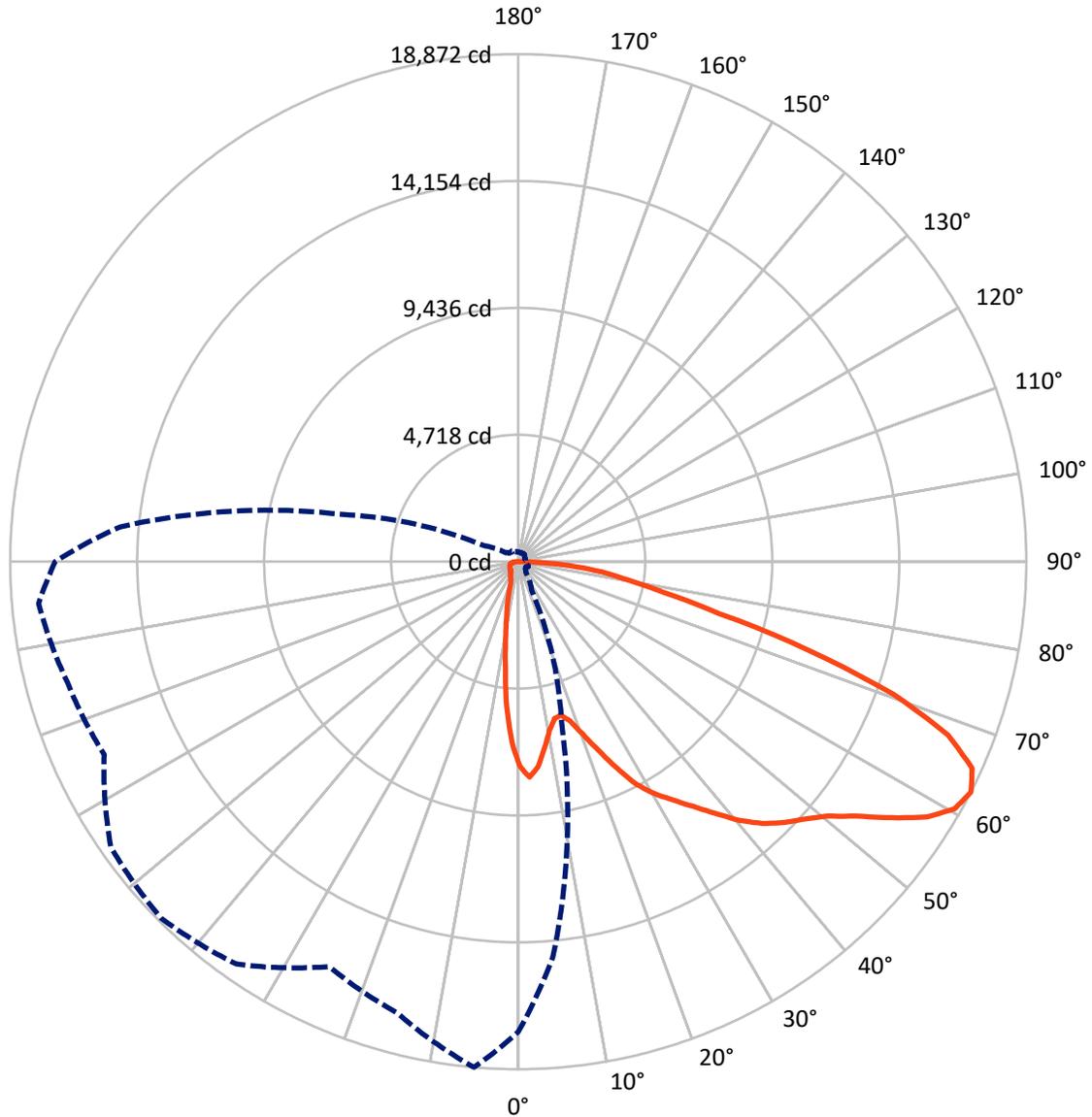
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 12.2 fc
 Type IV - Short - Non-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 355-Deg Lateral - - - Horizontal Cone Through 62.5-Deg Vertical

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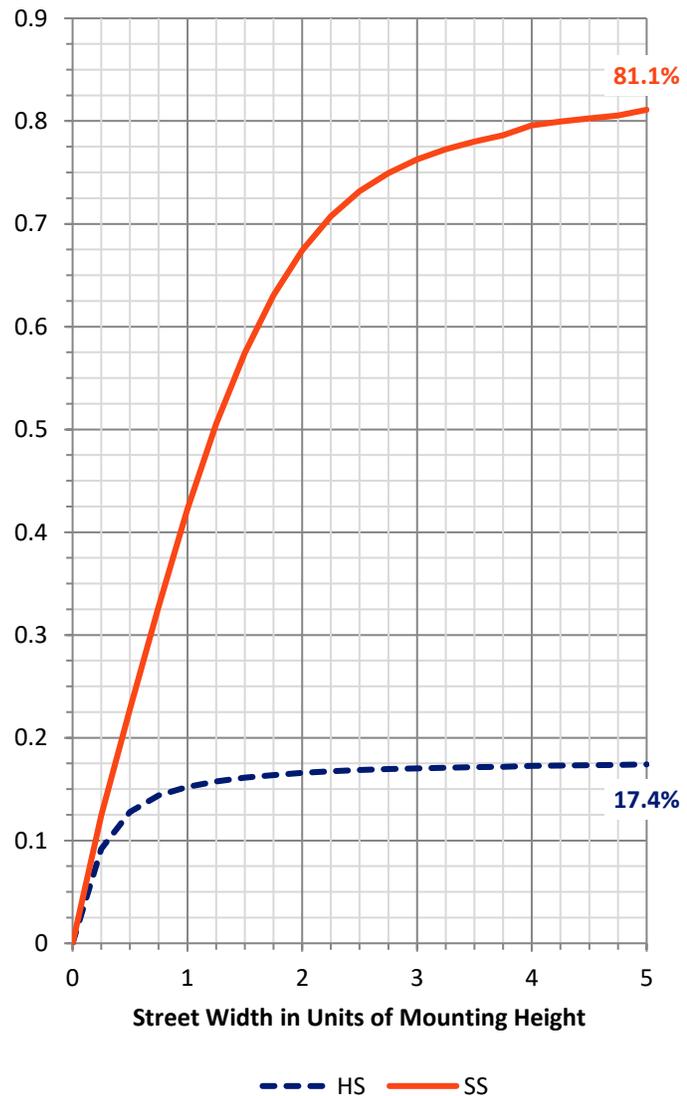
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	3956.3	0.0	3956.3
	% Fixture	17.7	0.0	17.7
Street Side	Lumens	18376.4	0.0	18376.4
	% Fixture	82.3	0.0	82.3
Total	Lumens	22332.7	0.0	22332.7
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	553.7	2.5
10°-20°	1011.3	4.5
20°-30°	1454.6	6.5
30°-40°	2227.8	10.0
40°-50°	3257.1	14.6
50°-60°	4739.1	21.2
60°-70°	5490.9	24.6
70°-80°	2862.3	12.8
80°-90°	735.8	3.3
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°	22332.7	100.0
0°-180°	22332.7	100.0



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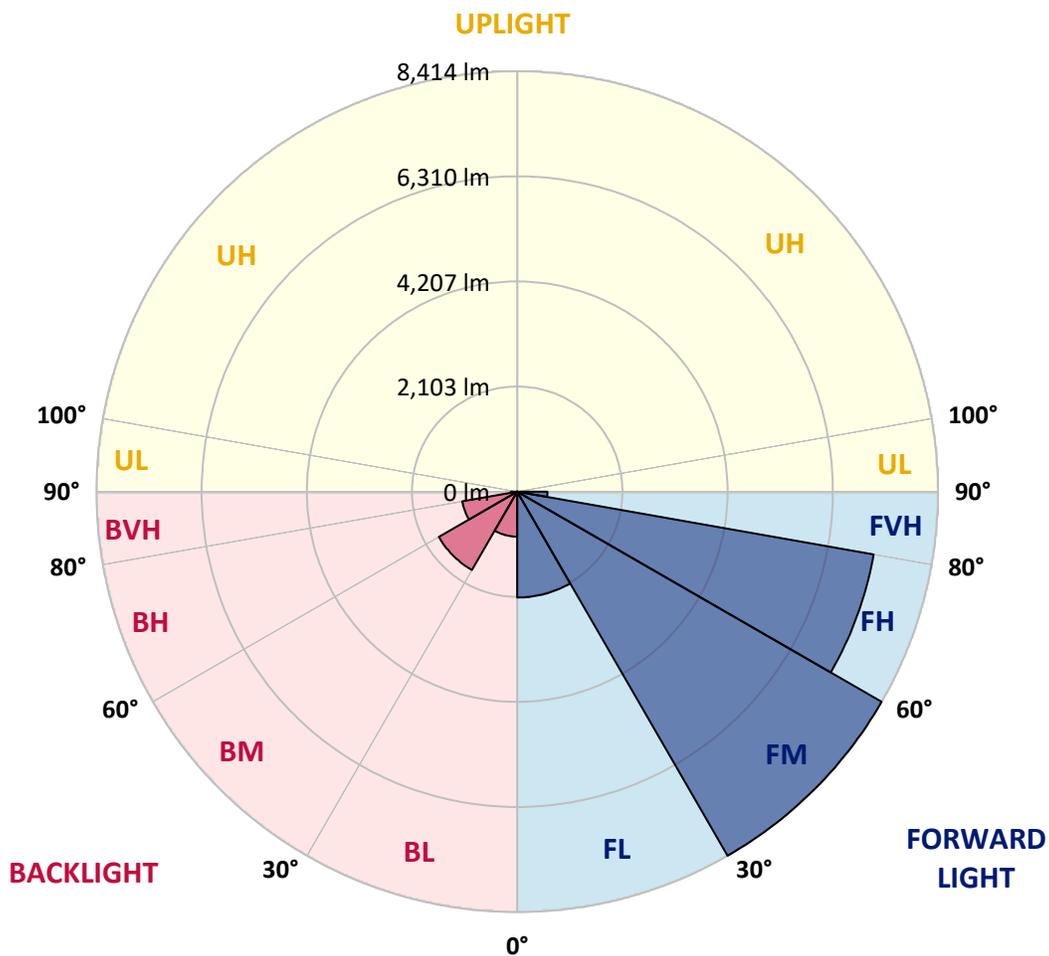
CATALOG NUMBER: NAV-AF-06-D-UNV-SLR-7027-800

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2119.5	9.5			
FM	(30°-60°)	8413.9	37.7			
FH	(60°-80°)	7237.7	32.4			G3/7500
FVH	(80°-90°)	605.3	2.7			G4/750
BL	(0°-30°)	900.1	4.0	B2/1000		
BM	(30°-60°)	1810.1	8.1	B2/2500		
BH	(60°-80°)	1115.6	5.0	B3/2500		G3/2500
BVH	(80°-90°)	130.5	0.6			G2/225
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G4

Type IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	7613.7	7613.7	7613.7	7613.7	7613.7	7613.7	7613.7	7613.7	7613.7	7613.7	7613.7
2.5°	7859.8	7749.7	7495.5	7272.0	6993.5	6784.5	6530.4	6396.0	6297.2	6230.9	6177.4
5°	7341.6	7076.0	6590.2	6164.3	5704.5	5372.7	4983.9	4771.8	4640.7	4569.5	4537.1
7.5°	6572.4	6221.1	5592.8	5021.3	4446.4	4032.0	3737.2	3423.0	3256.3	3147.8	3112.2
10°	5900.4	5503.7	4754.1	4111.3	3667.6	3372.9	3120.3	2832.0	2618.3	2432.2	2362.5
12.5°	5510.3	5048.7	4193.7	3612.5	3240.0	2924.3	2657.1	2346.3	2121.2	1926.9	1852.5
15°	5427.6	4912.7	3959.0	3295.2	2838.6	2458.0	2137.3	1798.9	1578.7	1418.5	1366.6
17.5°	5677.0	5042.2	3860.2	3005.3	2454.8	1990.0	1594.9	1232.3	1049.3	961.8	940.7
20°	6190.3	5327.3	3813.2	2744.6	2082.4	1531.8	1102.7	837.1	746.5	720.6	719.0
22.5°	6865.6	5790.4	3865.0	2530.9	1732.7	1130.2	807.9	688.2	650.9	636.4	636.4
25°	7628.1	6417.0	4002.8	2367.4	1424.9	879.3	696.2	631.5	600.7	586.1	587.9
27.5°	8560.8	7179.7	4190.6	2216.7	1204.6	770.7	650.9	595.8	565.2	550.5	552.2
30°	9263.6	7835.5	4352.5	2079.0	1091.4	727.1	626.7	574.8	540.8	519.8	518.1
32.5°	9921.1	8413.5	4483.7	1980.4	1026.7	649.4	566.7	527.8	498.6	474.5	469.5
35°	10648.1	8957.5	4545.2	1977.1	984.5	586.1	518.1	471.3	442.1	414.5	409.6
37.5°	11472.3	9623.2	4596.9	1996.6	961.8	545.7	495.4	450.1	425.8	398.3	391.8
40°	12330.5	10274.0	4637.5	2012.7	958.6	518.1	477.7	437.1	413.0	383.8	377.3
42.5°	13067.3	10850.4	4692.6	2006.3	935.9	513.3	466.3	425.8	403.2	374.1	366.0
45°	13656.7	11308.8	4778.4	2004.6	901.9	524.6	463.0	422.7	395.1	364.4	357.9
47.5°	14205.5	11825.3	4959.7	1998.1	864.7	521.3	481.0	419.4	391.8	361.1	356.3
50°	14833.8	12519.9	5269.0	1949.5	812.8	498.6	513.3	416.2	383.8	356.3	351.3
52.5°	15708.2	13536.7	5727.2	1862.1	741.6	474.5	518.1	414.5	370.8	346.6	340.1
55°	16736.4	14626.6	6221.1	1735.9	647.7	432.4	492.2	408.0	357.9	332.0	322.2
57.5°	17531.4	15431.4	6566.0	1554.4	555.4	408.0	438.8	393.5	341.6	315.8	307.7
60°	17754.9	15466.9	6627.5	1337.4	508.4	391.8	377.3	429.1	328.7	301.2	293.0
62.5°	17487.8	14759.3	6226.0	1185.3	492.2	375.8	343.3	409.6	315.8	288.3	280.1
65°	16695.9	13564.3	5327.3	1162.5	508.4	361.1	325.5	327.2	302.8	275.3	267.2
67.5°	14846.7	11805.9	4197.1	1177.1	527.8	346.6	312.5	298.0	288.3	263.9	254.2
70°	12074.7	9504.8	3306.5	1203.1	545.7	327.2	296.4	278.6	270.4	244.5	239.7
72.5°	9301.0	7607.1	2608.6	1185.3	563.4	307.7	273.7	259.2	249.4	225.0	220.3
75°	6604.9	6044.5	1917.2	1016.9	516.5	280.1	247.8	234.7	226.7	200.9	199.2
77.5°	4760.6	4527.4	1334.3	764.3	408.0	246.1	218.6	207.2	202.4	173.3	173.3
80°	3797.0	3445.7	798.2	498.6	298.0	204.1	183.0	178.1	173.3	144.1	145.7
82.5°	2728.4	2390.0	510.1	311.0	218.6	155.4	142.6	140.9	132.8	106.9	106.9
85°	1399.0	1220.8	327.2	208.9	153.8	100.4	94.0	90.6	85.8	66.4	66.4
87.5°	272.0	374.1	181.4	102.0	74.5	35.7	35.7	30.7	35.7	24.3	26.0
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):

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°	185°
0°	7613.7	7613.7	7613.7	7613.7	7613.7	7613.7	7613.7	7613.7	7613.7	7613.7	7613.7
2.5°	6279.4	6247.1	6224.4	6212.9	6376.6	6444.5	6522.2	6634.1	6710.1	6677.7	6781.3
5°	4689.3	4712.0	4763.8	4844.7	5073.1	5181.6	5251.2	5343.5	5409.9	5343.5	5453.6
7.5°	3206.1	3240.0	3350.1	3517.0	3792.3	3913.6	3938.0	3939.5	3925.1	3816.4	3891.0
10°	2360.8	2292.8	2317.1	2436.9	2683.1	2791.6	2802.9	2773.7	2768.8	2725.2	2809.4
12.5°	1829.8	1735.9	1680.8	1700.2	1884.9	1973.8	1988.4	2004.6	2071.0	2092.1	2195.6
15°	1365.1	1316.5	1276.0	1258.2	1379.5	1449.2	1457.3	1496.1	1565.7	1585.1	1674.4
17.5°	960.2	973.1	994.2	1002.2	1089.7	1135.1	1122.2	1122.2	1133.4	1128.6	1178.8
20°	733.6	759.3	799.9	838.7	918.1	943.9	911.6	871.1	845.2	832.3	843.6
22.5°	647.7	665.6	691.4	741.6	807.9	821.0	778.8	746.5	722.1	709.2	710.9
25°	600.7	618.6	639.7	680.0	736.8	743.3	704.5	683.3	663.8	650.9	647.7
27.5°	560.3	571.6	584.5	610.5	668.8	672.0	646.2	633.1	620.2	610.5	607.3
30°	523.1	527.8	532.8	558.7	602.4	607.3	594.3	587.9	582.9	576.4	576.4
32.5°	474.5	481.0	488.9	511.7	553.7	560.3	552.2	547.2	539.3	536.0	531.1
35°	416.2	432.4	450.1	477.7	523.1	526.2	516.5	502.0	482.5	477.7	474.5
37.5°	391.8	395.1	417.7	450.1	497.1	500.4	487.4	463.0	448.6	450.1	453.4
40°	375.8	380.5	393.5	425.8	472.8	477.7	466.3	448.6	433.9	435.6	440.3
42.5°	362.7	369.3	377.3	398.3	445.3	455.0	451.8	435.6	420.9	424.2	430.6
45°	356.3	361.1	361.1	375.8	420.9	435.6	437.1	424.2	413.0	416.2	424.2
47.5°	353.0	353.0	348.2	359.5	404.7	419.4	422.7	416.2	409.6	413.0	420.9
50°	348.2	341.6	336.9	346.6	391.8	404.7	408.0	403.2	406.5	413.0	417.7
52.5°	333.6	327.2	327.2	333.6	378.8	391.8	393.5	390.3	396.7	404.7	413.0
55°	315.8	315.8	317.5	323.8	372.4	382.0	380.5	377.3	383.8	393.5	401.5
57.5°	299.6	298.0	306.1	314.1	364.4	370.8	367.5	367.5	372.4	380.5	388.5
60°	289.9	281.8	288.3	301.2	356.3	362.7	357.9	356.3	364.4	370.8	377.3
62.5°	280.1	272.0	276.9	289.9	344.9	349.8	346.6	346.6	354.7	359.5	366.0
65°	265.5	262.3	265.5	278.6	335.2	336.9	336.9	338.4	344.9	348.2	354.7
67.5°	252.7	252.7	254.2	267.2	327.2	323.8	323.8	332.0	333.6	336.9	343.3
70°	236.4	239.7	239.7	255.8	320.6	309.2	311.0	317.5	320.6	323.8	325.5
72.5°	218.6	220.3	223.5	244.5	311.0	294.7	296.4	301.2	302.8	307.7	309.2
75°	199.2	200.9	205.6	233.2	304.4	280.1	276.9	280.1	283.3	286.6	285.0
77.5°	176.4	179.8	184.6	226.7	283.3	276.9	252.7	255.8	259.2	259.2	257.5
80°	148.9	153.8	162.0	217.0	239.7	267.2	225.0	226.7	228.3	228.3	225.0
82.5°	111.7	121.5	132.8	179.8	187.8	228.3	194.4	197.5	192.6	189.5	187.8
85°	72.9	80.9	97.1	124.7	137.6	179.8	160.3	162.0	152.3	150.6	150.6
87.5°	29.1	30.7	43.7	63.2	82.6	111.7	115.0	118.1	110.1	110.1	113.4
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):

	195°	205°	215°	225°	235°	245°	255°	265°	270°	275°	285°
0°	7613.7	7613.7	7613.7	7613.7	7613.7	7613.7	7613.7	7613.7	7613.7	7613.7	7613.7
2.5°	6938.4	7100.4	7286.5	7476.1	7631.5	7832.2	8026.5	8233.9	8339.1	8400.6	8573.9
5°	5625.2	5847.1	6111.0	6407.3	6653.4	7074.4	7527.8	8033.1	8275.9	8515.6	8968.9
7.5°	4023.8	4240.8	4548.4	4932.1	5281.9	5837.4	6434.7	7118.2	7454.9	7843.6	8586.8
10°	2987.6	3217.4	3495.9	3821.4	4166.2	4744.4	5414.8	6182.2	6553.0	6991.9	7837.2
12.5°	2422.4	2691.1	2979.4	3270.9	3567.2	3955.7	4658.5	5511.9	5910.2	6352.3	7199.0
15°	1889.7	2177.9	2488.8	2806.1	3100.8	3534.8	4252.0	5261.0	5715.8	6143.4	6836.5
17.5°	1337.4	1609.6	1959.3	2344.7	2772.1	3285.5	4164.6	5371.0	5923.2	6370.2	6834.8
20°	911.6	1099.4	1449.2	1905.8	2433.7	3084.6	4197.1	5758.0	6447.8	6938.4	7114.9
22.5°	728.6	817.6	1054.2	1518.9	2142.3	2939.0	4329.8	6289.2	7200.8	7798.2	7625.0
25°	662.3	712.4	835.6	1199.9	1883.1	2841.8	4588.9	6990.3	8044.3	8650.0	8238.6
27.5°	621.7	665.6	744.9	986.1	1659.7	2778.5	4917.6	7816.1	8994.9	9491.9	8878.3
30°	595.8	639.7	712.4	885.6	1491.4	2684.7	5205.9	8570.5	9754.2	10076.5	9223.2
32.5°	545.7	579.6	639.7	793.5	1365.1	2574.6	5455.1	9245.9	10471.6	10578.4	9637.6
35°	493.9	529.6	589.4	719.0	1290.5	2488.8	5586.4	9845.0	11182.5	11080.5	10049.0
37.5°	474.5	503.6	558.7	665.6	1250.0	2432.2	5636.5	10434.4	11945.1	11635.8	10335.5
40°	461.5	487.4	536.0	629.9	1238.8	2378.6	5625.2	10994.5	12685.1	12210.7	10560.7
42.5°	451.8	474.5	519.8	605.5	1208.0	2328.4	5587.9	11478.7	13277.7	12706.2	10776.0
45°	443.7	467.9	513.3	618.6	1151.3	2273.4	5565.3	11920.8	13732.7	13123.9	11064.2
47.5°	440.3	467.9	514.9	615.2	1089.7	2211.8	5646.2	12411.4	14129.4	13475.2	11448.0
50°	435.6	466.3	550.5	586.1	1005.6	2135.8	5919.9	12996.0	14545.5	13870.4	11945.1
52.5°	427.5	464.8	587.9	563.4	897.0	2030.4	6363.7	13821.9	15264.4	14639.5	12680.2
55°	417.7	467.9	561.9	527.8	782.1	1894.4	6807.3	14953.6	16430.4	15879.8	13736.0
57.5°	406.5	463.0	531.1	495.4	686.6	1722.9	7144.1	15881.5	17392.2	17159.1	15033.0
60°	398.3	474.5	477.7	476.0	625.0	1559.3	7176.4	15821.6	17669.1	17989.6	16302.4
62.5°	388.5	484.1	435.6	461.5	594.3	1407.1	6776.5	14841.8	17201.1	17882.7	17337.2
65°	375.8	422.7	413.0	448.6	594.3	1326.2	5845.5	13211.4	15907.4	16872.4	17899.0
67.5°	362.7	383.8	396.7	430.6	607.3	1250.0	4697.3	11143.6	13867.1	15241.8	17267.5
70°	344.9	362.7	378.8	414.5	600.7	1196.6	3696.7	8931.7	11412.3	12986.3	15520.3
72.5°	328.7	341.6	357.9	390.3	600.7	1172.3	2969.6	7006.4	8713.1	10039.3	12856.7
75°	304.4	315.8	330.3	366.0	589.4	1071.9	2229.8	5613.9	6374.9	7205.6	10144.5
77.5°	280.1	288.3	299.6	335.2	531.1	895.4	1577.2	4347.6	4723.3	5183.2	7908.4
80°	249.4	255.8	263.9	299.6	440.3	694.7	1026.7	3400.4	3531.5	3753.4	5202.7
82.5°	213.7	223.5	225.0	257.5	354.7	503.6	610.5	2330.1	2328.4	2654.0	3670.8
85°	174.9	179.8	183.0	202.4	262.3	335.2	401.5	1272.7	1135.1	1590.1	3188.3
87.5°	131.2	126.3	131.2	136.1	173.3	197.5	215.4	234.7	140.9	288.3	1854.0
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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CATALOG NUMBER: NAV-AF-06-D-UNV-SLR-7027-800

CANDELA DISTRIBUTION (continued):

	295°	305°	315°	325°	335°	345°	355°	360°
0°	7613.7	7613.7	7613.7	7613.7	7613.7	7613.7	7613.7	7613.7
2.5°	8666.2	8761.7	8704.9	8637.1	8467.0	8217.6	8026.5	7859.8
5°	9283.1	9459.5	9381.9	9129.3	8688.8	8188.5	7662.3	7341.6
7.5°	9205.3	9555.1	9524.3	9103.3	8471.8	7735.0	6995.1	6572.4
10°	8583.6	9074.1	9158.4	8727.7	8059.0	7234.7	6378.1	5900.4
12.5°	7906.7	8319.7	8491.3	8327.6	7697.8	6860.6	5987.9	5510.3
15°	7340.1	7548.8	7718.9	7824.1	7434.0	6727.9	5919.9	5427.6
17.5°	6920.6	6880.1	7022.6	7275.3	7291.5	6904.5	6227.6	5677.0
20°	6718.2	6400.9	6483.3	6838.0	7252.6	7352.9	6841.2	6190.3
22.5°	6706.8	6211.4	6227.6	6609.6	7364.2	7965.0	7607.1	6865.6
25°	6881.7	6190.3	6205.0	6585.5	7561.8	8582.0	8492.8	7628.1
27.5°	7179.7	6280.9	6271.2	6692.4	7825.8	9096.9	9386.7	8560.8
30°	7501.9	6412.2	6387.8	6863.9	8084.8	9414.2	10021.4	9263.6
32.5°	7903.5	6645.3	6561.1	7114.9	8340.7	9718.7	10563.9	9921.1
35°	8285.6	6986.9	6865.6	7474.3	8614.3	10057.1	11171.1	10648.1
37.5°	8675.9	7497.1	7429.1	7992.5	9001.3	10424.7	11865.7	11472.3
40°	9176.1	8222.5	8190.0	8745.4	9517.8	10826.3	12644.6	12330.5
42.5°	9715.3	8993.2	8965.8	9610.2	10159.1	11229.4	13311.8	13067.3
45°	10264.4	9927.4	9933.9	10533.2	10834.3	11610.0	13836.4	13656.7
47.5°	10912.0	10949.4	11180.8	11490.1	11491.7	12034.1	14301.0	14205.5
50°	11734.6	12183.2	12610.5	12659.2	12155.5	12594.3	14869.5	14833.8
52.5°	12665.7	13606.4	14103.5	13949.7	12803.4	13289.0	15709.7	15708.2
55°	13771.6	15094.5	15562.4	15300.1	13578.9	14194.2	16807.6	16736.4
57.5°	14918.1	16525.8	16903.1	16561.5	14548.8	15248.3	17908.7	17531.4
60°	16156.7	17758.1	18141.9	17628.6	15636.9	16299.1	18637.3	17754.9
62.5°	16967.9	18478.8	18753.9	18261.7	16611.7	17369.4	18872.2	17487.8
65°	17010.0	17999.3	18072.3	17897.4	17026.3	18299.0	18532.2	16695.9
67.5°	15853.9	15912.1	16007.7	16195.6	16140.6	17884.4	17220.6	14846.7
70°	13381.3	12604.1	12918.3	13099.7	13507.6	15907.4	14796.5	12074.7
72.5°	10232.0	9096.9	9453.0	9391.6	10240.0	13047.8	11320.1	9301.0
75°	7364.2	6203.2	6230.9	6234.1	7357.7	10414.9	7718.9	6604.9
77.5°	5005.0	4389.7	4480.4	4423.8	4924.1	8159.3	5557.3	4760.6
80°	3423.0	3406.8	3426.2	3293.5	3283.8	5273.9	4114.4	3797.0
82.5°	2539.0	2346.3	2318.7	2177.9	2516.3	4032.0	3123.4	2728.4
85°	2003.0	1298.6	1128.6	1361.8	2179.5	3709.7	1904.1	1399.0
87.5°	848.4	510.1	309.2	612.0	1211.2	2718.7	527.8	272.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)