

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: P195756

Luminaire Tested: **NAV-AF-06-D-UNV-SLR-7050-800**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P195756
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-7050-800
Description: NAVION ROADWAY AND AREA LUMINAIRE
(6) 70 CRI, 5000K, 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: 25705 lumens
Efficiency: N/A
Efficacy: 103.2 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

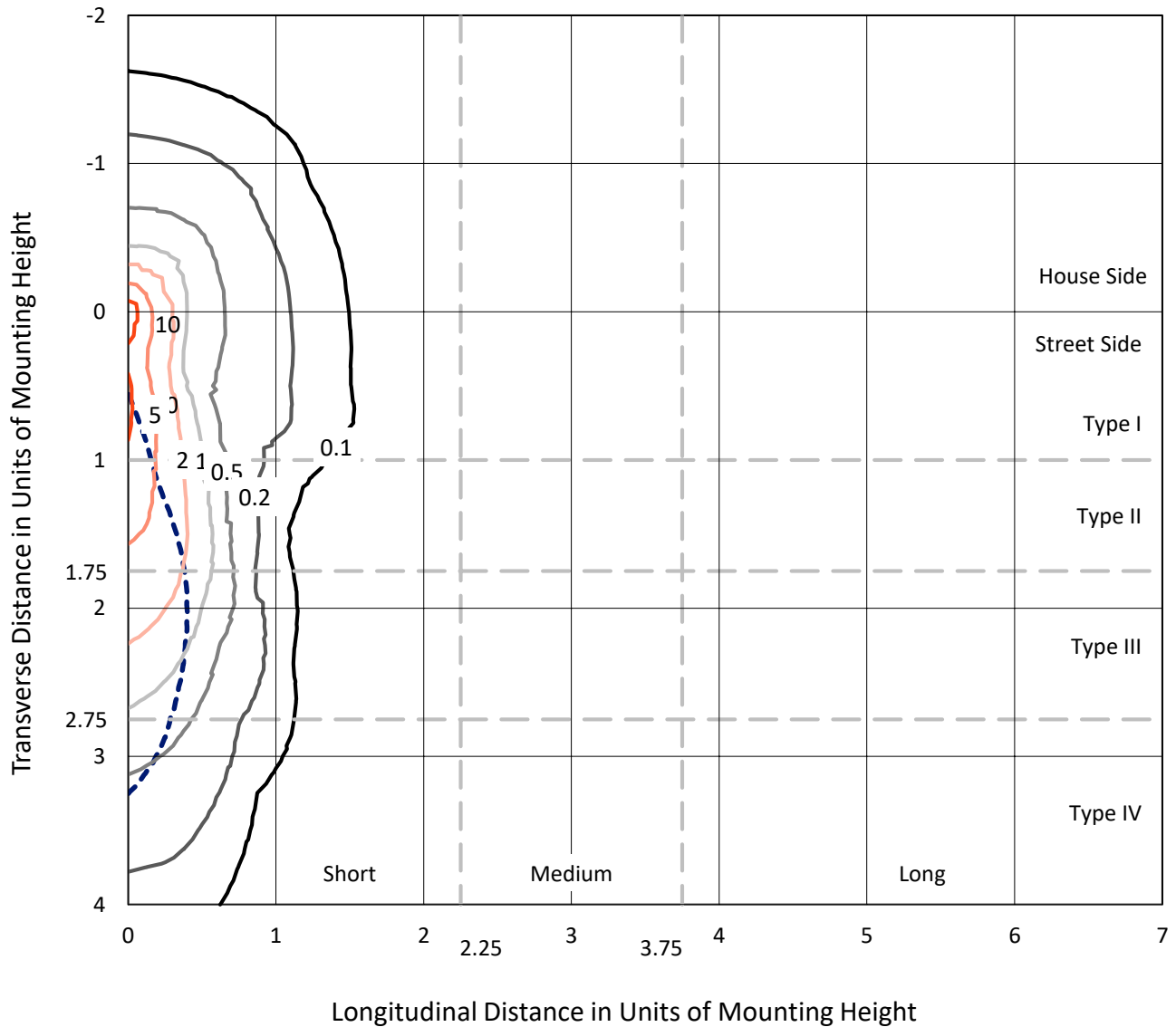
Input Watts (W): 249
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

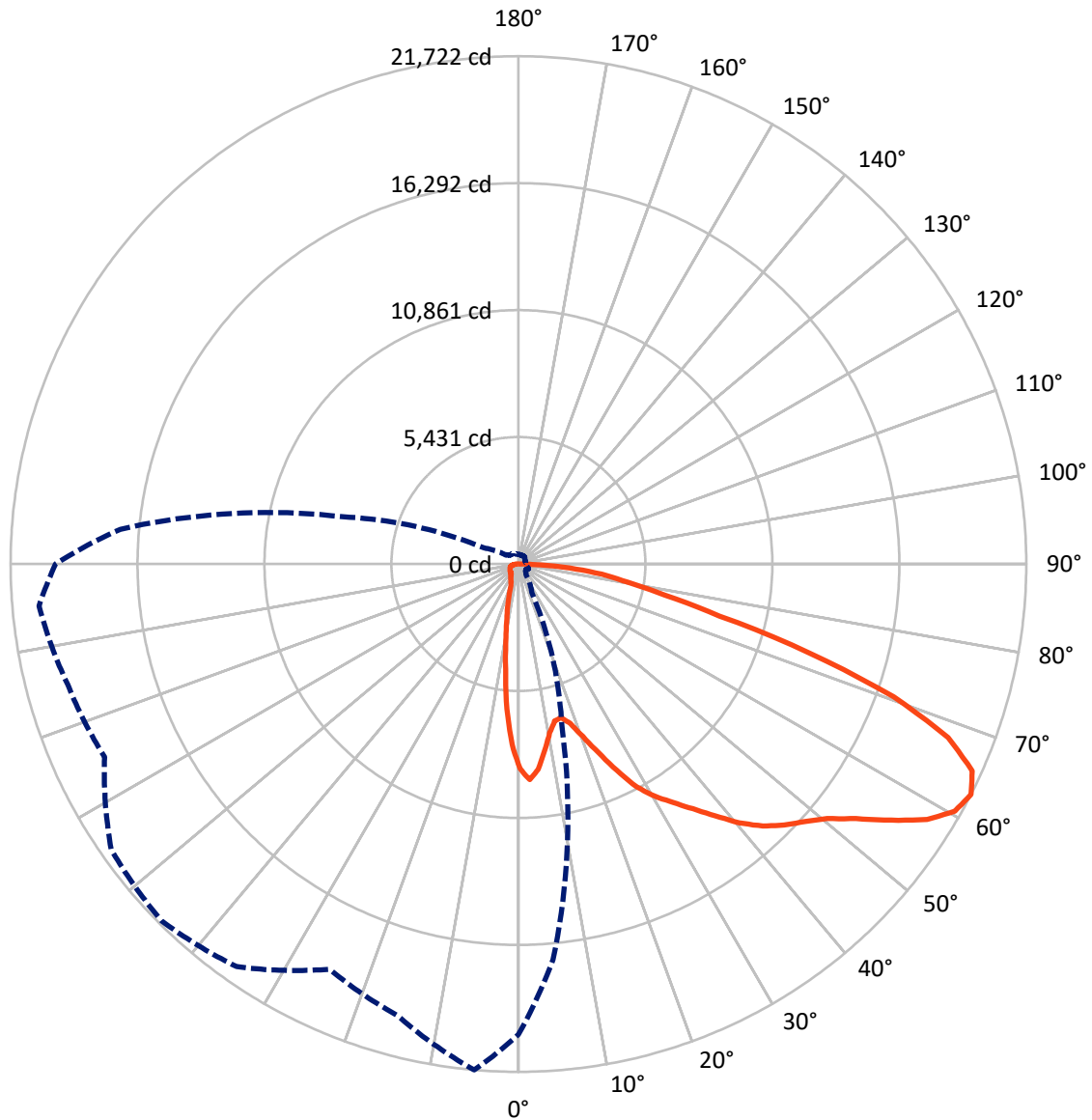
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 14 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	4553.7	0.0	4553.7
	% Fixture	17.7	0.0	17.7
Street Side	Lumens	21151.3	0.0	21151.3
	% Fixture	82.3	0.0	82.3
Total	Lumens	25705.0	0.0	25705.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	637.3	2.5
10°-20°	1164.0	4.5
20°-30°	1674.2	6.5
30°-40°	2564.2	10.0
40°-50°	3748.9	14.6
50°-60°	5454.8	21.2
60°-70°	6320.1	24.6
70°-80°	3294.6	12.8
80°-90°	846.9	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°	25705.0	100.0
0°-180°	25705.0	100.0



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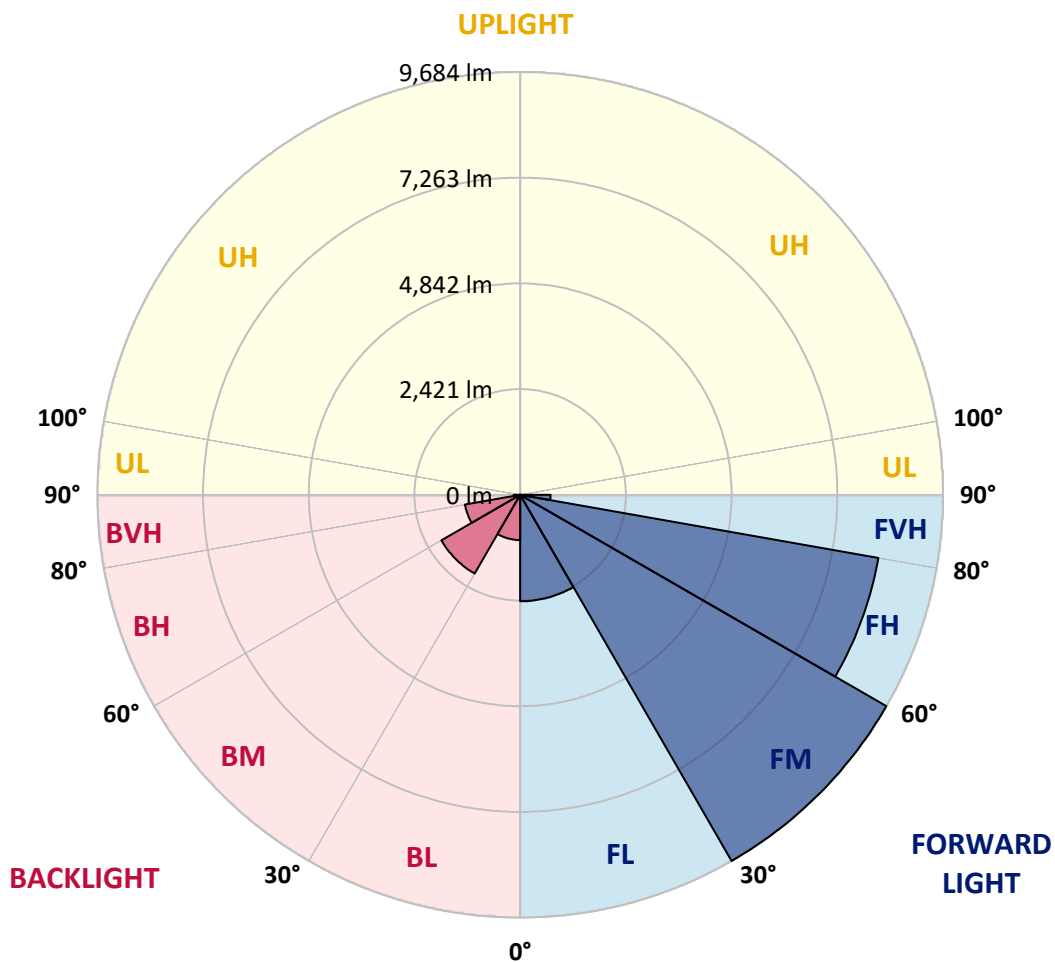
CATALOG NUMBER: NAV-AF-06-D-UNV-SLR-7050-800

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	2439.5	9.5			
FM (30°-60°)	9684.5	37.7			
FH (60°-80°)	8330.6	32.4			G4/12000
FVH (80°-90°)	696.7	2.7			G4/750
BL (0°-30°)	1036.0	4.0	B3/2500		
BM (30°-60°)	2083.5	8.1	B2/2500		
BH (60°-80°)	1284.0	5.0	B3/2500		G3/2500
BVH (80°-90°)	150.2	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°	8763.3	8763.3	8763.3	8763.3	8763.3	8763.3	8763.3	8763.3	8763.3	8763.3	8763.3
2.5°	9046.6	8919.9	8627.3	8370.1	8049.5	7809.1	7516.5	7361.8	7248.1	7171.7	7110.2
5°	8450.2	8144.6	7585.5	7095.3	6566.0	6183.9	5736.6	5492.5	5341.5	5259.5	5222.2
7.5°	7565.0	7160.5	6437.4	5779.5	5117.9	4640.7	4301.5	3940.0	3748.0	3623.1	3582.1
10°	6791.5	6334.9	5472.0	4732.1	4221.4	3882.2	3591.4	3259.7	3013.7	2799.4	2719.2
12.5°	6342.3	5811.2	4827.1	4158.0	3729.4	3365.9	3058.4	2700.6	2441.5	2217.9	2132.1
15°	6247.3	5654.6	4556.9	3792.7	3267.2	2829.2	2460.1	2070.6	1817.2	1632.6	1573.0
17.5°	6534.3	5803.7	4443.2	3459.1	2825.4	2290.5	1835.8	1418.3	1207.7	1107.1	1082.8
20°	7125.1	6131.7	4389.1	3159.1	2396.8	1763.1	1269.2	963.6	859.2	829.4	827.5
22.5°	7902.3	6664.8	4448.8	2913.0	1994.2	1300.9	930.0	792.1	749.2	732.5	732.5
25°	8780.1	7386.0	4607.2	2724.8	1640.1	1012.0	801.4	726.9	691.5	674.7	676.5
27.5°	9853.6	8263.9	4823.4	2551.5	1386.6	887.1	749.2	685.9	650.4	633.7	635.5
30°	10662.5	9018.7	5009.8	2393.1	1256.2	836.8	721.3	661.6	622.5	598.3	596.4
32.5°	11419.2	9684.0	5160.7	2279.4	1181.6	747.4	652.3	607.6	574.0	546.1	540.5
35°	12256.0	10310.3	5231.5	2275.6	1133.2	674.7	596.4	542.4	508.8	477.1	471.5
37.5°	13204.7	11076.3	5291.2	2298.0	1107.1	628.1	570.3	518.1	490.2	458.5	451.0
40°	14192.4	11825.5	5337.8	2316.6	1103.3	596.4	549.8	503.2	475.3	441.7	434.3
42.5°	15040.5	12489.0	5401.1	2309.2	1077.2	590.8	536.8	490.2	464.1	430.5	421.2
45°	15718.9	13016.4	5499.9	2307.3	1038.1	603.9	533.0	486.4	454.8	419.3	411.9
47.5°	16350.7	13611.0	5708.7	2299.9	995.2	600.1	553.5	482.7	451.0	415.6	410.0
50°	17073.8	14410.5	6064.6	2244.0	935.6	574.0	590.8	479.0	441.7	410.0	404.4
52.5°	18080.2	15580.9	6592.1	2143.3	853.6	546.1	596.4	477.1	426.8	398.8	391.4
55°	19263.7	16835.2	7160.5	1997.9	745.5	497.6	566.6	469.7	411.9	382.1	370.9
57.5°	20178.8	17761.5	7557.5	1789.2	639.3	469.7	505.1	452.9	393.3	363.4	354.1
60°	20436.0	17802.5	7628.3	1539.5	585.2	451.0	434.3	493.9	378.3	346.7	337.3
62.5°	20128.5	16988.1	7166.1	1364.3	566.6	432.4	395.1	471.5	363.4	331.7	322.4
65°	19217.1	15612.6	6131.7	1338.2	585.2	415.6	374.6	376.5	348.5	316.8	307.5
67.5°	17088.7	13588.6	4830.8	1354.9	607.6	398.8	359.7	342.9	331.7	303.8	292.6
70°	13898.0	10940.2	3805.8	1384.8	628.1	376.5	341.1	320.6	311.2	281.4	275.8
72.5°	10705.4	8755.9	3002.5	1364.3	648.6	354.1	315.0	298.2	287.0	259.1	253.5
75°	7602.2	6957.4	2206.7	1170.4	594.5	322.4	285.2	270.2	260.9	231.1	229.2
77.5°	5479.4	5211.0	1535.7	879.7	469.7	283.3	251.6	238.6	233.0	199.4	199.4
80°	4370.5	3966.1	918.8	574.0	342.9	234.8	210.6	205.0	199.4	165.9	167.7
82.5°	3140.4	2750.9	587.1	357.8	251.6	178.9	164.0	162.1	152.8	123.0	123.0
85°	1610.3	1405.3	376.5	240.4	177.1	115.6	108.1	104.4	98.8	76.4	76.4
87.5°	313.1	430.5	208.7	117.4	85.7	41.0	41.0	35.4	41.0	28.0	29.8
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°	8763.3	8763.3	8763.3	8763.3	8763.3	8763.3	8763.3	8763.3	8763.3	8763.3	8763.3
2.5°	7227.6	7190.3	7164.3	7151.2	7339.4	7417.7	7507.2	7635.8	7723.4	7686.1	7805.4
5°	5397.4	5423.5	5483.1	5576.3	5839.1	5964.0	6044.1	6150.4	6226.8	6150.4	6277.1
7.5°	3690.2	3729.4	3856.1	4048.1	4364.9	4504.7	4532.6	4534.5	4517.7	4392.9	4478.6
10°	2717.3	2639.1	2667.0	2804.9	3088.2	3213.1	3226.1	3192.6	3187.0	3136.7	3233.6
12.5°	2106.0	1997.9	1934.6	1956.9	2169.4	2271.9	2288.7	2307.3	2383.7	2408.0	2527.2
15°	1571.1	1515.2	1468.6	1448.1	1587.9	1668.1	1677.4	1722.1	1802.2	1824.6	1927.1
17.5°	1105.2	1120.1	1144.3	1153.7	1254.3	1306.5	1291.6	1291.6	1304.6	1299.0	1356.8
20°	844.3	874.1	920.7	965.4	1056.7	1086.6	1049.3	1002.7	972.9	958.0	971.0
22.5°	745.5	766.0	795.8	853.6	930.0	944.9	896.5	859.2	831.2	816.3	818.2
25°	691.5	712.0	736.2	782.8	848.0	855.5	810.7	786.5	764.1	749.2	745.5
27.5°	644.9	657.9	672.8	702.6	769.7	773.5	743.6	728.7	713.8	702.6	698.9
30°	602.0	607.6	613.2	643.0	693.3	698.9	684.0	676.5	670.9	663.5	663.5
32.5°	546.1	553.5	562.9	588.9	637.4	644.9	635.5	629.9	620.6	616.9	611.3
35°	479.0	497.6	518.1	549.8	602.0	605.7	594.5	577.8	555.4	549.8	546.1
37.5°	451.0	454.8	480.8	518.1	572.2	575.9	561.0	533.0	516.3	518.1	521.8
40°	432.4	438.0	452.9	490.2	544.2	549.8	536.8	516.3	499.5	501.3	506.9
42.5°	417.5	424.9	434.3	458.5	512.5	523.7	520.0	501.3	484.6	488.3	495.8
45°	410.0	415.6	415.6	432.4	484.6	501.3	503.2	488.3	475.3	479.0	488.3
47.5°	406.3	406.3	400.7	413.8	465.9	482.7	486.4	479.0	471.5	475.3	484.6
50°	400.7	393.3	387.7	398.8	451.0	465.9	469.7	464.1	467.8	475.3	480.8
52.5°	383.9	376.5	376.5	383.9	436.1	451.0	452.9	449.2	456.6	465.9	475.3
55°	363.4	363.4	365.3	372.7	428.7	439.8	438.0	434.3	441.7	452.9	462.2
57.5°	344.8	342.9	352.2	361.6	419.3	426.8	423.1	423.1	428.7	438.0	447.3
60°	333.6	324.3	331.7	346.7	410.0	417.5	411.9	410.0	419.3	426.8	434.3
62.5°	322.4	313.1	318.7	333.6	397.0	402.6	398.8	398.8	408.2	413.8	421.2
65°	305.7	301.9	305.7	320.6	385.8	387.7	387.7	389.5	397.0	400.7	408.2
67.5°	290.7	290.7	292.6	307.5	376.5	372.7	372.7	382.1	383.9	387.7	395.1
70°	272.1	275.8	275.8	294.5	369.0	356.0	357.8	365.3	369.0	372.7	374.6
72.5°	251.6	253.5	257.2	281.4	357.8	339.2	341.1	346.7	348.5	354.1	356.0
75°	229.2	231.1	236.7	268.4	350.4	322.4	318.7	322.4	326.2	329.9	328.0
77.5°	203.1	206.9	212.5	260.9	326.2	318.7	290.7	294.5	298.2	298.2	296.3
80°	171.5	177.1	186.4	249.7	275.8	307.5	259.1	260.9	262.8	262.8	259.1
82.5°	128.6	139.8	152.8	206.9	216.2	262.8	223.6	227.4	221.8	218.1	216.2
85°	83.9	93.2	111.8	143.5	158.4	206.9	184.5	186.4	175.2	173.3	173.3
87.5°	33.5	35.4	50.3	72.7	95.1	128.6	132.3	136.1	126.7	126.7	130.5
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°	8763.3	8763.3	8763.3	8763.3	8763.3	8763.3	8763.3	8763.3	8763.3	8763.3	8763.3
2.5°	7986.2	8172.5	8386.9	8604.9	8783.8	9015.0	9238.6	9477.2	9598.3	9669.1	9868.5
5°	6474.7	6730.0	7033.8	7374.9	7658.1	8142.7	8664.6	9246.1	9525.6	9801.5	10323.3
7.5°	4631.4	4881.2	5235.3	5677.0	6079.5	6718.8	7406.5	8193.0	8580.7	9028.0	9883.5
10°	3438.6	3703.3	4023.8	4398.4	4795.4	5460.8	6232.4	7115.8	7542.6	8047.7	9020.5
12.5°	2788.2	3097.6	3429.3	3764.8	4105.8	4553.1	5362.0	6344.2	6802.7	7311.5	8286.2
15°	2175.0	2506.7	2864.6	3229.9	3569.1	4068.6	4894.2	6055.3	6579.0	7071.1	7868.7
17.5°	1539.5	1852.6	2255.1	2698.7	3190.7	3781.5	4793.6	6182.1	6817.6	7332.0	7866.9
20°	1049.3	1265.5	1668.1	2193.6	2801.2	3550.4	4830.8	6627.5	7421.4	7986.2	8189.3
22.5°	838.7	941.2	1213.3	1748.2	2465.7	3382.7	4983.7	7238.8	8288.1	8975.8	8776.4
25°	762.3	820.0	961.7	1381.0	2167.5	3270.9	5281.9	8045.8	9259.1	9956.1	9482.8
27.5°	715.7	766.0	857.3	1135.0	1910.3	3198.2	5660.2	8996.3	10353.1	10925.3	10218.9
30°	685.9	736.2	820.0	1019.5	1716.5	3090.1	5992.0	9864.8	11227.2	11598.1	10615.9
32.5°	628.1	667.2	736.2	913.2	1571.1	2963.4	6279.0	10642.0	12052.9	12175.9	11093.0
35°	568.4	609.4	678.4	827.5	1485.4	2864.6	6429.9	11331.6	12871.0	12753.6	11566.4
37.5°	546.1	579.6	643.0	766.0	1438.8	2799.4	6487.7	12010.0	13748.9	13392.9	11896.3
40°	531.2	561.0	616.9	725.0	1425.8	2737.8	6474.7	12654.9	14600.6	14054.5	12155.4
42.5°	520.0	546.1	598.3	697.0	1390.4	2680.1	6431.8	13212.1	15282.7	14624.8	12403.2
45°	510.7	538.6	590.8	712.0	1325.1	2616.7	6405.7	13720.9	15806.5	15105.7	12735.0
47.5°	506.9	538.6	592.7	708.2	1254.3	2545.9	6498.9	14285.6	16263.1	15510.1	13176.7
50°	501.3	536.8	633.7	674.7	1157.4	2458.3	6813.9	14958.4	16742.1	15964.9	13748.9
52.5°	492.0	534.9	676.5	648.6	1032.5	2337.1	7324.5	15909.0	17569.6	16850.2	14595.0
55°	480.8	538.6	646.7	607.6	900.2	2180.6	7835.2	17211.7	18911.5	18277.8	15810.2
57.5°	467.8	533.0	611.3	570.3	790.2	1983.0	8222.9	18279.6	20018.5	19750.1	17303.0
60°	458.5	546.1	549.8	547.9	719.4	1794.8	8260.1	18210.7	20337.2	20706.2	18764.2
62.5°	447.3	557.3	501.3	531.2	684.0	1619.6	7799.8	17083.1	19798.6	20583.2	19955.2
65°	432.4	486.4	475.3	516.3	684.0	1526.4	6728.1	15206.3	18309.5	19420.3	20601.9
67.5°	417.5	441.7	456.6	495.8	698.9	1438.8	5406.7	12826.3	15961.1	17543.5	19875.0
70°	397.0	417.5	436.1	477.1	691.5	1377.3	4254.9	10280.4	13135.7	14947.3	17864.0
72.5°	378.3	393.3	411.9	449.2	691.5	1349.4	3418.1	8064.4	10028.8	11555.2	14798.2
75°	350.4	363.4	380.2	421.2	678.4	1233.8	2566.4	6461.6	7337.6	8293.7	11676.4
77.5°	322.4	331.7	344.8	385.8	611.3	1030.7	1815.3	5004.2	5436.6	5965.9	9102.5
80°	287.0	294.5	303.8	344.8	506.9	799.5	1181.6	3913.9	4064.8	4320.2	5988.2
82.5°	246.0	257.2	259.1	296.3	408.2	579.6	702.6	2681.9	2680.1	3054.7	4225.1
85°	201.3	206.9	210.6	233.0	301.9	385.8	462.2	1464.9	1306.5	1830.2	3669.7
87.5°	151.0	145.4	151.0	156.6	199.4	227.4	247.9	270.2	162.1	331.7	2134.0
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-7050-800

CANDELA DISTRIBUTION (continued):

	295°	305°	315°	325°	335°	345°	355°	360°
0°	8763.3	8763.3	8763.3	8763.3	8763.3	8763.3	8763.3	8763.3
2.5°	9974.8	10084.7	10019.5	9941.2	9745.5	9458.5	9238.6	9046.6
5°	10684.9	10888.0	10798.6	10507.8	10000.9	9425.0	8819.3	8450.2
7.5°	10595.4	10998.0	10962.6	10478.0	9751.1	8903.1	8051.4	7565.0
10°	9879.7	10444.4	10541.4	10045.6	9275.9	8327.2	7341.3	6791.5
12.5°	9100.7	9575.9	9773.5	9585.3	8860.3	7896.7	6892.1	6342.3
15°	8448.4	8688.8	8884.5	9005.6	8556.5	7743.9	6813.9	6247.3
17.5°	7965.7	7919.1	8083.1	8373.8	8392.5	7947.0	7168.0	6534.3
20°	7732.7	7367.4	7462.4	7870.6	8347.7	8463.3	7874.3	7125.1
22.5°	7719.6	7149.3	7168.0	7607.8	8476.3	9167.8	8755.9	7902.3
25°	7920.9	7125.1	7141.9	7579.9	8703.7	9877.9	9775.4	8780.1
27.5°	8263.9	7229.5	7218.3	7702.9	9007.5	10470.5	10804.2	9853.6
30°	8634.7	7380.4	7352.5	7900.4	9305.7	10835.8	11534.7	10662.5
32.5°	9097.0	7648.8	7551.9	8189.3	9600.2	11186.2	12159.1	11419.2
35°	9536.8	8042.1	7902.3	8603.1	9915.1	11575.7	12858.0	12256.0
37.5°	9986.0	8629.2	8550.9	9199.5	10360.6	11998.8	13657.6	13204.7
40°	10561.9	9464.1	9426.8	10066.1	10955.1	12461.0	14554.0	14192.4
42.5°	11182.5	10351.3	10319.6	11061.3	11693.2	12925.1	15321.9	15040.5
45°	11814.3	11426.6	11434.1	12123.7	12470.3	13363.1	15925.7	15718.9
47.5°	12559.8	12602.7	12869.2	13225.2	13227.0	13851.4	16460.6	16350.7
50°	13506.6	14022.8	14514.9	14570.8	13991.2	14496.2	17114.8	17073.8
52.5°	14578.2	15661.1	16233.3	16056.2	14736.7	15295.8	18082.1	18080.2
55°	15851.2	17373.9	17912.5	17610.6	15629.4	16337.6	19345.7	19263.7
57.5°	17170.7	19021.4	19455.7	19062.4	16745.8	17550.9	20613.1	20178.8
60°	18596.5	20439.7	20881.4	20290.6	17998.2	18760.5	21451.7	20436.0
62.5°	19530.2	21269.1	21585.9	21019.4	19120.2	19992.4	21722.0	20128.5
65°	19578.7	20717.4	20801.3	20600.0	19597.3	21062.2	21330.6	19217.1
67.5°	18248.0	18315.1	18425.0	18641.2	18577.8	20585.1	19821.0	17088.7
70°	15402.0	14507.4	14869.0	15077.7	15547.4	18309.5	17030.9	13898.0
72.5°	11777.0	10470.5	10880.6	10809.7	11786.3	15018.1	13029.5	10705.4
75°	8476.3	7140.0	7171.7	7175.4	8468.9	11987.6	8884.5	7602.2
77.5°	5760.8	5052.6	5157.0	5091.8	5667.7	9391.4	6396.4	5479.4
80°	3940.0	3921.3	3943.7	3790.9	3779.7	6070.2	4735.8	4370.5
82.5°	2922.4	2700.6	2668.9	2506.7	2896.3	4640.7	3595.2	3140.4
85°	2305.5	1494.7	1299.0	1567.4	2508.6	4269.8	2191.8	1610.3
87.5°	976.6	587.1	356.0	704.5	1394.1	3129.2	607.6	313.1
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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