

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: P195761

Luminaire Tested: **NAV-AF-05-D-UNV-SLR-7050**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P195761  
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-05-D-UNV-SLR-7050  
Description: NAVION ROADWAY AND AREA LUMINAIRE  
(5) 70 CRI, 5000K, 1050mA 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: 26558 lumens  
Efficiency: N/A  
Efficacy: 95.2 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

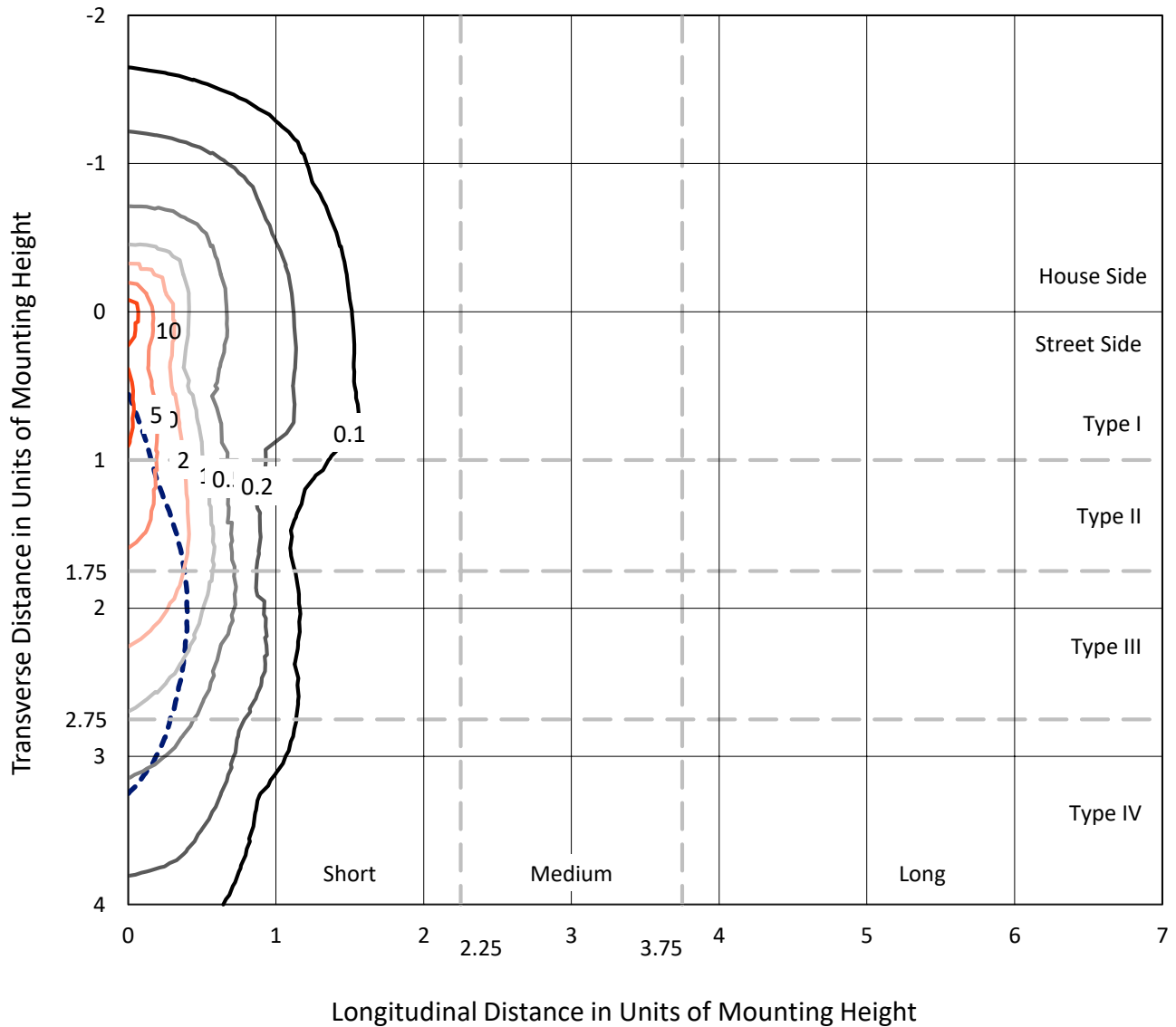
Input Watts (W): 279  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



REPORT NUMBER: P195761  
 CATALOG NUMBER: NAV-AF-05-D-UNV-SLR-7050

### Iso-Footcandle Lines of Horizontal Illumination

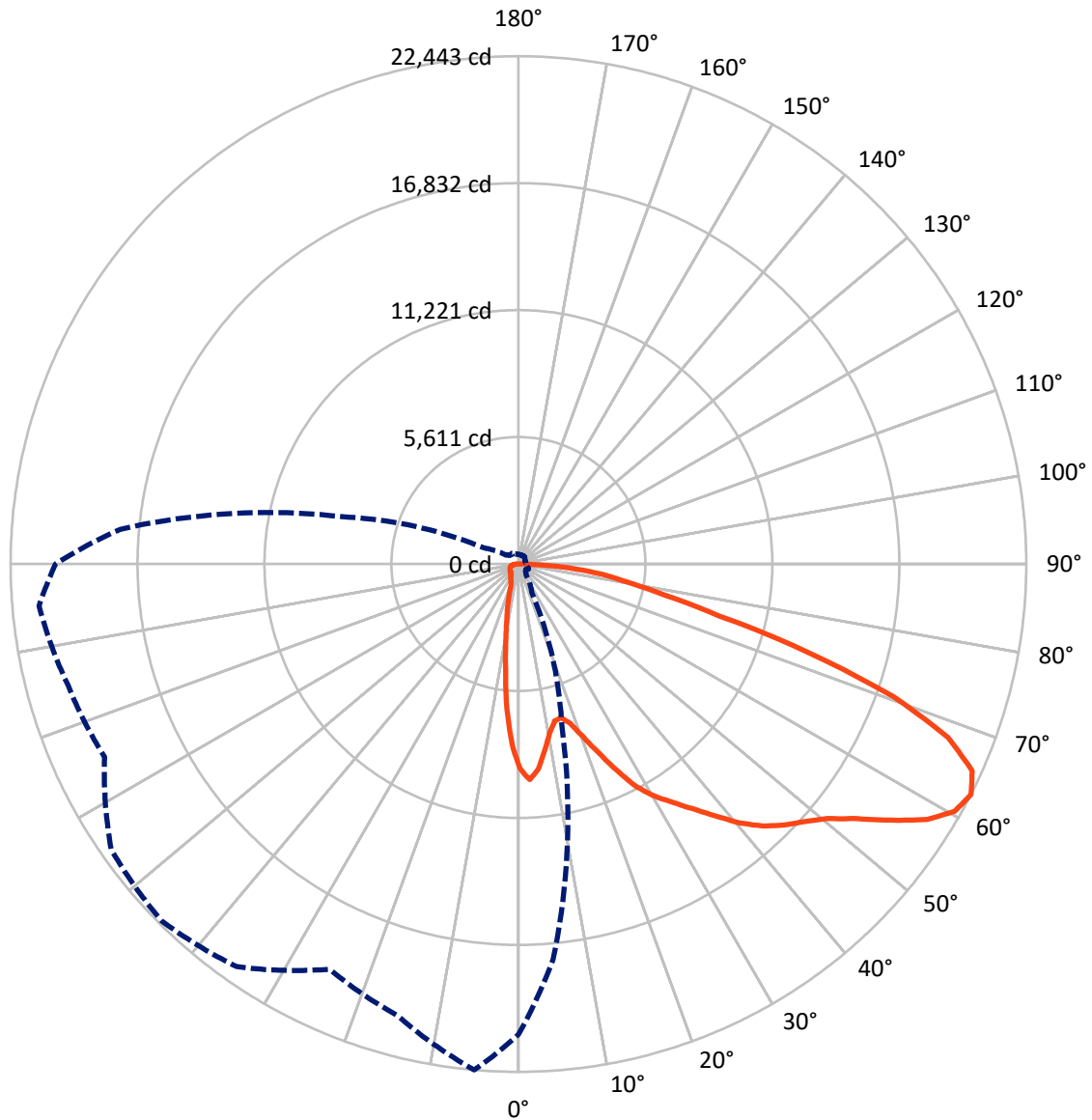
× Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 14.5 fc  
 Type IV - Short - Non-Cutoff

REPORT NUMBER: P195761  
CATALOG NUMBER: NAV-AF-05-D-UNV-SLR-7050

### Luminous Intensity Polar Plot



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

REPORT NUMBER: P195761

CATALOG NUMBER: NAV-AF-05-D-UNV-SLR-7050

**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	4704.8	0.0	4704.8
	% Fixture	17.7	0.0	17.7
<b>Street Side</b>	Lumens	21853.2	0.0	21853.2
	% Fixture	82.3	0.0	82.3
<b>Total</b>	Lumens	26558.0	0.0	26558.0
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	658.5	2.5
10°-20°	1202.7	4.5
20°-30°	1729.8	6.5
30°-40°	2649.3	10.0
40°-50°	3873.4	14.6
50°-60°	5635.8	21.2
60°-70°	6529.8	24.6
70°-80°	3403.9	12.8
80°-90°	875.0	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°	26558.0	100.0
0°-180°	26558.0	100.0



REPORT NUMBER: P195761

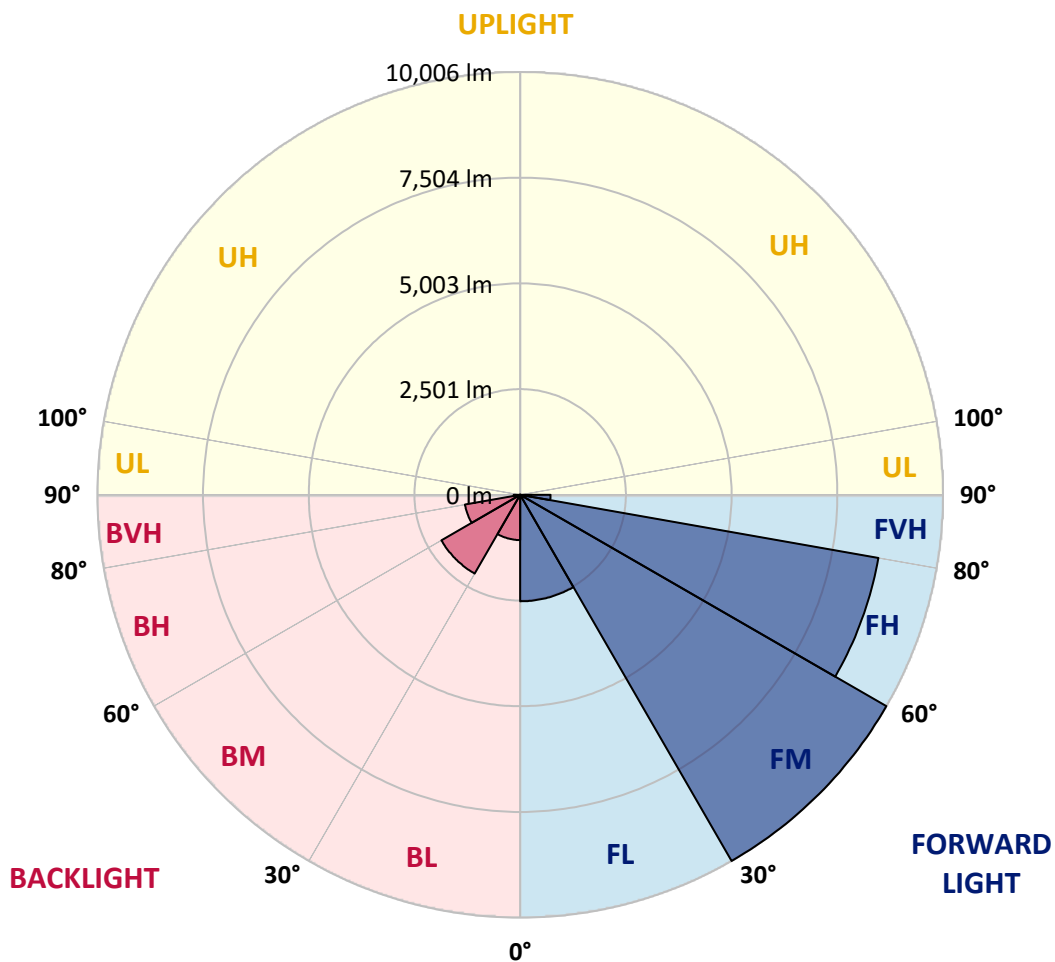
CATALOG NUMBER: NAV-AF-05-D-UNV-SLR-7050

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

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2520.5	9.5			
FM	(30°-60°)	10005.8	37.7			
FH	(60°-80°)	8607.1	32.4			G4/12000
FVH	(80°-90°)	719.8	2.7			G4/750
BL	(0°-30°)	1070.4	4.0	B3/2500		
BM	(30°-60°)	2152.6	8.1	B2/2500		
BH	(60°-80°)	1326.6	5.0	B3/2500		G3/2500
BVH	(80°-90°)	155.2	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





REPORT NUMBER: P195761

CATALOG NUMBER: NAV-AF-05-D-UNV-SLR-7050

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	9054.2	9054.2	9054.2	9054.2	9054.2	9054.2	9054.2	9054.2	9054.2	9054.2	9054.2
2.5°	9346.8	9215.9	8913.6	8647.9	8316.6	8068.2	7765.9	7606.1	7488.6	7409.7	7346.1
5°	8730.7	8414.9	7837.2	7330.7	6783.9	6389.1	5927.0	5674.7	5518.8	5434.0	5395.5
7.5°	7816.0	7398.1	6651.0	5971.3	5287.7	4794.7	4444.3	4070.7	3872.4	3743.4	3701.0
10°	7016.9	6545.1	5653.5	4889.1	4361.5	4011.0	3710.6	3367.9	3113.7	2892.2	2809.4
12.5°	6552.8	6004.0	4987.3	4296.0	3853.1	3477.6	3159.9	2790.2	2522.5	2291.5	2202.9
15°	6454.6	5842.3	4708.1	3918.6	3375.6	2923.1	2541.8	2139.3	1877.5	1686.8	1625.2
17.5°	6751.1	5996.3	4590.6	3573.9	2919.2	2366.6	1896.7	1465.4	1247.8	1143.8	1118.8
20°	7361.6	6335.2	4534.8	3263.9	2476.3	1821.6	1311.3	995.5	887.7	856.9	855.0
22.5°	8164.5	6885.9	4596.4	3009.7	2060.4	1344.1	960.9	818.4	774.1	756.8	756.8
25°	9071.5	7631.1	4760.1	2815.2	1694.5	1045.6	828.0	751.0	714.4	697.1	699.0
27.5°	10180.6	8538.1	4983.4	2636.1	1432.6	916.6	774.1	708.6	672.0	654.7	656.6
30°	11016.3	9318.0	5176.0	2472.5	1297.9	864.6	745.2	683.6	643.1	618.1	616.2
32.5°	11798.1	10005.4	5332.0	2355.0	1220.8	772.2	674.0	627.7	593.1	564.2	558.4
35°	12662.7	10652.4	5405.1	2351.2	1170.8	697.1	616.2	560.3	525.7	493.0	487.2
37.5°	13642.8	11443.8	5466.8	2374.3	1143.8	648.9	589.2	535.3	506.4	473.7	466.0
40°	14663.4	12217.9	5514.9	2393.5	1140.0	616.2	568.1	519.9	491.0	456.4	448.7
42.5°	15539.6	12903.4	5580.4	2385.8	1113.0	610.4	554.6	506.4	479.5	444.8	435.2
45°	16240.5	13448.4	5682.4	2383.9	1072.6	623.9	550.7	502.6	469.8	433.3	425.6
47.5°	16893.3	14062.6	5898.1	2376.2	1028.3	620.0	571.9	498.7	466.0	429.4	423.6
50°	17640.4	14888.7	6265.9	2318.4	966.6	593.1	610.4	494.9	456.4	423.6	417.9
52.5°	18680.2	16098.0	6810.8	2214.4	881.9	564.2	616.2	493.0	441.0	412.1	404.4
55°	19903.0	17393.9	7398.1	2064.2	770.2	514.1	585.4	485.3	425.6	394.7	383.2
57.5°	20848.4	18350.9	7808.3	1848.6	660.5	485.3	521.8	467.9	406.3	375.5	365.9
60°	21114.2	18393.3	7881.5	1590.5	604.6	466.0	448.7	510.3	390.9	358.2	348.5
62.5°	20796.4	17551.8	7403.9	1409.5	585.4	446.7	408.2	487.2	375.5	342.8	333.1
65°	19854.8	16130.7	6335.2	1382.6	604.6	429.4	387.0	389.0	360.1	327.4	317.7
67.5°	17655.8	14039.5	4991.1	1399.9	627.7	412.1	371.6	354.3	342.8	313.9	302.3
70°	14359.2	11303.2	3932.1	1430.7	648.9	389.0	352.4	331.2	321.6	290.8	285.0
72.5°	11060.6	9046.4	3102.1	1409.5	670.1	365.9	325.4	308.1	296.5	267.7	261.9
75°	7854.5	7188.2	2279.9	1209.3	614.3	333.1	294.6	279.2	269.6	238.8	236.8
77.5°	5661.3	5384.0	1586.7	908.9	485.3	292.7	260.0	246.5	240.7	206.0	206.0
80°	4515.5	4097.7	949.3	593.1	354.3	242.6	217.6	211.8	206.0	171.4	173.3
82.5°	3244.6	2842.2	606.6	369.7	260.0	184.9	169.5	167.5	157.9	127.1	127.1
85°	1663.7	1451.9	389.0	248.4	182.9	119.4	111.7	107.8	102.1	78.9	78.9
87.5°	323.5	444.8	215.7	121.3	88.6	42.4	42.4	36.6	42.4	28.9	30.8
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: P195761

CATALOG NUMBER: NAV-AF-05-D-UNV-SLR-7050

**CANDELA DISTRIBUTION (continued):**

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°	185°
0°	9054.2	9054.2	9054.2	9054.2	9054.2	9054.2	9054.2	9054.2	9054.2	9054.2	9054.2
2.5°	7467.5	7428.9	7402.0	7388.5	7583.0	7663.9	7756.3	7889.2	7979.7	7941.2	8064.4
5°	5576.5	5603.5	5665.1	5761.4	6032.9	6161.9	6244.7	6354.5	6433.4	6354.5	6485.4
7.5°	3812.7	3853.1	3984.1	4182.4	4509.7	4654.2	4683.0	4685.0	4667.6	4538.6	4627.2
10°	2807.5	2726.6	2755.5	2898.0	3190.7	3319.7	3333.2	3298.5	3292.8	3240.8	3340.9
12.5°	2175.9	2064.2	1998.8	2021.9	2241.4	2347.3	2364.6	2383.9	2462.8	2487.9	2611.1
15°	1623.3	1565.5	1517.4	1496.2	1640.6	1723.4	1733.0	1779.3	1862.1	1885.2	1991.1
17.5°	1141.9	1157.3	1182.3	1191.9	1295.9	1349.8	1334.4	1334.4	1347.9	1342.1	1401.8
20°	872.3	903.1	951.2	997.5	1091.8	1122.6	1084.1	1036.0	1005.2	989.8	1003.2
22.5°	770.2	791.4	822.2	881.9	960.9	976.3	926.2	887.7	858.8	843.4	845.3
25°	714.4	735.6	760.6	808.8	876.1	883.8	837.6	812.6	789.5	774.1	770.2
27.5°	666.3	679.7	695.1	725.9	795.3	799.1	768.3	752.9	737.5	725.9	722.1
30°	622.0	627.7	633.5	664.3	716.3	722.1	706.7	699.0	693.2	685.5	685.5
32.5°	564.2	571.9	581.5	608.5	658.6	666.3	656.6	650.9	641.2	637.4	631.6
35°	494.9	514.1	535.3	568.1	622.0	625.8	614.3	596.9	573.8	568.1	564.2
37.5°	466.0	469.8	496.8	535.3	591.2	595.0	579.6	550.7	533.4	535.3	539.2
40°	446.7	452.5	467.9	506.4	562.3	568.1	554.6	533.4	516.1	518.0	523.8
42.5°	431.3	439.0	448.7	473.7	529.5	541.1	537.2	518.0	500.7	504.5	512.2
45°	423.6	429.4	429.4	446.7	500.7	518.0	519.9	504.5	491.0	494.9	504.5
47.5°	419.8	419.8	414.0	427.5	481.4	498.7	502.6	494.9	487.2	491.0	500.7
50°	414.0	406.3	400.5	412.1	466.0	481.4	485.3	479.5	483.3	491.0	496.8
52.5°	396.7	389.0	389.0	396.7	450.6	466.0	467.9	464.1	471.8	481.4	491.0
55°	375.5	375.5	377.4	385.1	442.9	454.4	452.5	448.7	456.4	467.9	477.5
57.5°	356.2	354.3	363.9	373.6	433.3	441.0	437.1	437.1	442.9	452.5	462.1
60°	344.7	335.1	342.8	358.2	423.6	431.3	425.6	423.6	433.3	441.0	448.7
62.5°	333.1	323.5	329.3	344.7	410.2	415.9	412.1	412.1	421.7	427.5	435.2
65°	315.8	311.9	315.8	331.2	398.6	400.5	400.5	402.4	410.2	414.0	421.7
67.5°	300.4	300.4	302.3	317.7	389.0	385.1	385.1	394.7	396.7	400.5	408.2
70°	281.1	285.0	285.0	304.2	381.3	367.8	369.7	377.4	381.3	385.1	387.0
72.5°	260.0	261.9	265.7	290.8	369.7	350.5	352.4	358.2	360.1	365.9	367.8
75°	236.8	238.8	244.6	277.3	362.0	333.1	329.3	333.1	337.0	340.8	338.9
77.5°	209.9	213.7	219.5	269.6	337.0	329.3	300.4	304.2	308.1	308.1	306.2
80°	177.2	182.9	192.6	258.0	285.0	317.7	267.7	269.6	271.5	271.5	267.7
82.5°	132.9	144.4	157.9	213.7	223.4	271.5	231.1	234.9	229.1	225.3	223.4
85°	86.7	96.3	115.5	148.3	163.7	213.7	190.6	192.6	181.0	179.1	179.1
87.5°	34.7	36.6	52.0	75.1	98.2	132.9	136.7	140.6	130.9	130.9	134.8
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: P195761  
 CATALOG NUMBER: NAV-AF-05-D-UNV-SLR-7050

**CANDELA DISTRIBUTION (continued):**

	195°	205°	215°	225°	235°	245°	255°	265°	270°	275°	285°
0°	9054.2	9054.2	9054.2	9054.2	9054.2	9054.2	9054.2	9054.2	9054.2	9054.2	9054.2
2.5°	8251.2	8443.7	8665.2	8890.5	9075.3	9314.1	9545.2	9791.7	9916.8	9990.0	10196.0
5°	6689.5	6953.3	7267.2	7619.6	7912.3	8412.9	8952.1	9552.9	9841.7	10126.7	10665.9
7.5°	4785.1	5043.1	5409.0	5865.4	6281.3	6941.8	7652.3	8464.9	8865.4	9327.6	10211.4
10°	3552.7	3826.2	4157.4	4544.4	4954.6	5642.0	6439.2	7351.9	7792.9	8314.7	9319.9
12.5°	2880.7	3200.3	3543.1	3889.7	4242.1	4704.2	5539.9	6554.7	7028.4	7554.1	8561.2
15°	2247.2	2589.9	2959.6	3337.1	3687.5	4203.6	5056.6	6256.3	6797.4	7305.7	8129.9
17.5°	1590.5	1914.0	2330.0	2788.3	3296.6	3907.0	4952.6	6387.2	7043.8	7575.3	8127.9
20°	1084.1	1307.5	1723.4	2266.4	2894.2	3668.3	4991.1	6847.4	7667.7	8251.2	8461.1
22.5°	866.5	972.4	1253.6	1806.2	2547.6	3495.0	5149.0	7479.0	8563.1	9273.7	9067.6
25°	787.6	847.3	993.6	1426.9	2239.5	3379.4	5457.1	8312.8	9566.4	10286.5	9797.4
27.5°	739.4	791.4	885.8	1172.7	1973.7	3304.3	5848.0	9294.9	10696.7	11287.8	10558.0
30°	708.6	760.6	847.3	1053.3	1773.5	3192.6	6190.8	10192.2	11599.8	11983.0	10968.2
32.5°	648.9	689.4	760.6	943.5	1623.3	3061.7	6487.3	10995.2	12452.8	12579.9	11461.1
35°	587.3	629.7	700.9	855.0	1534.7	2959.6	6643.3	11707.6	13298.2	13176.9	11950.2
37.5°	564.2	598.9	664.3	791.4	1486.6	2892.2	6703.0	12408.5	14205.1	13837.3	12291.1
40°	548.8	579.6	637.4	749.1	1473.1	2828.7	6689.5	13074.8	15085.1	14520.9	12558.7
42.5°	537.2	564.2	618.1	720.2	1436.5	2769.0	6645.2	13650.5	15789.9	15110.1	12814.8
45°	527.6	556.5	610.4	735.6	1369.1	2703.5	6618.3	14176.2	16331.0	15607.0	13157.6
47.5°	523.8	556.5	612.3	731.7	1295.9	2630.4	6714.6	14759.7	16802.7	16024.8	13614.0
50°	518.0	554.6	654.7	697.1	1195.8	2539.9	7040.0	15454.8	17297.6	16494.7	14205.1
52.5°	508.4	552.6	699.0	670.1	1066.8	2414.7	7567.6	16436.9	18152.6	17409.3	15079.3
55°	496.8	556.5	668.2	627.7	930.1	2252.9	8095.2	17782.9	19539.0	18884.3	16334.8
57.5°	483.3	550.7	631.6	589.2	816.5	2048.8	8495.7	18886.2	20682.8	20405.5	17877.2
60°	473.7	564.2	568.1	566.1	743.3	1854.3	8534.2	18815.0	21012.1	21393.4	19386.9
62.5°	462.1	575.8	518.0	548.8	706.7	1673.3	8058.6	17650.0	20455.6	21266.3	20617.4
65°	446.7	502.6	491.0	533.4	706.7	1577.1	6951.4	15710.9	18917.1	20064.7	21285.5
67.5°	431.3	456.4	471.8	512.2	722.1	1486.6	5586.2	13251.9	16490.8	18125.6	20534.6
70°	410.2	431.3	450.6	493.0	714.4	1423.0	4396.1	10621.6	13571.6	15443.3	18456.8
72.5°	390.9	406.3	425.6	464.1	714.4	1394.1	3531.5	8332.1	10361.6	11938.7	15289.2
75°	362.0	375.5	392.8	435.2	700.9	1274.7	2651.5	6676.0	7581.1	8568.9	12063.9
77.5°	333.1	342.8	356.2	398.6	631.6	1064.9	1875.5	5170.2	5617.0	6163.8	9404.6
80°	296.5	304.2	313.9	356.2	523.8	826.1	1220.8	4043.8	4199.7	4463.5	6186.9
82.5°	254.2	265.7	267.7	306.2	421.7	598.9	725.9	2770.9	2769.0	3156.1	4365.3
85°	208.0	213.7	217.6	240.7	311.9	398.6	477.5	1513.5	1349.8	1890.9	3791.5
87.5°	156.0	150.2	156.0	161.8	206.0	234.9	256.1	279.2	167.5	342.8	2204.8
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: P195761

CATALOG NUMBER: NAV-AF-05-D-UNV-SLR-7050

**CANDELA DISTRIBUTION (continued):**

	295°	305°	315°	325°	335°	345°	355°	360°
0°	9054.2	9054.2	9054.2	9054.2	9054.2	9054.2	9054.2	9054.2
2.5°	10305.8	10419.4	10352.0	10271.1	10068.9	9772.4	9545.2	9346.8
5°	11039.4	11249.3	11156.9	10856.5	10332.7	9737.7	9111.9	8730.7
7.5°	10947.0	11362.9	11326.4	10825.7	10074.7	9198.6	8318.6	7816.0
10°	10207.6	10791.0	10891.2	10379.0	9583.7	8603.6	7584.9	7016.9
12.5°	9402.7	9893.7	10097.8	9903.3	9154.3	8158.7	7120.9	6552.8
15°	8728.7	8977.1	9179.3	9304.5	8840.4	8000.9	7040.0	6454.6
17.5°	8230.0	8181.9	8351.3	8651.7	8671.0	8210.7	7405.8	6751.1
20°	7989.3	7611.9	7710.1	8131.8	8624.7	8744.1	8135.6	7361.6
22.5°	7975.8	7386.6	7405.8	7860.3	8757.6	9472.0	9046.4	8164.5
25°	8183.8	7361.6	7378.9	7831.4	8992.5	10205.7	10099.7	9071.5
27.5°	8538.1	7469.4	7457.8	7958.5	9306.4	10818.0	11162.7	10180.6
30°	8921.3	7625.4	7596.5	8162.6	9614.5	11195.4	11917.5	11016.3
32.5°	9398.8	7902.6	7802.5	8461.1	9918.7	11557.4	12562.6	11798.1
35°	9853.3	8308.9	8164.5	8888.5	10244.2	11959.9	13284.7	12662.7
37.5°	10317.3	8915.5	8834.6	9504.7	10704.4	12397.0	14110.8	13642.8
40°	10912.4	9778.2	9739.7	10400.1	11318.7	12874.5	15037.0	14663.4
42.5°	11553.6	10694.8	10662.0	11428.4	12081.2	13354.0	15830.3	15539.6
45°	12206.4	11805.8	11813.5	12526.0	12884.2	13806.5	16454.2	16240.5
47.5°	12976.6	13020.9	13296.2	13664.0	13666.0	14311.0	17006.9	16893.3
50°	13954.8	14488.2	14996.5	15054.3	14455.4	14977.3	17682.7	17640.4
52.5°	15062.0	16180.8	16771.9	16589.0	15225.7	15803.4	18682.1	18680.2
55°	16377.2	17950.4	18506.9	18195.0	16148.0	16879.8	19987.7	19903.0
57.5°	17740.5	19652.6	20101.3	19695.0	17301.5	18133.3	21297.1	20848.4
60°	19213.6	21118.0	21574.4	20964.0	18595.5	19383.0	22163.6	21114.2
62.5°	20178.3	21974.9	22302.2	21716.9	19754.7	20655.9	22442.8	20796.4
65°	20228.4	21404.9	21491.6	21283.6	20247.6	21761.2	22038.4	19854.8
67.5°	18853.5	18922.8	19036.4	19259.8	19194.3	21268.2	20478.7	17655.8
70°	15913.1	14988.8	15362.4	15578.1	16063.3	18917.1	17596.1	14359.2
72.5°	12167.8	10818.0	11241.6	11168.5	12177.5	15516.5	13461.8	11060.6
75°	8757.6	7377.0	7409.7	7413.5	8749.9	12385.4	9179.3	7854.5
77.5°	5952.0	5220.3	5328.1	5260.7	5855.7	9703.1	6608.6	5661.3
80°	4070.7	4051.5	4074.6	3916.7	3905.1	6271.7	4892.9	4515.5
82.5°	3019.3	2790.2	2757.5	2589.9	2992.4	4794.7	3714.5	3244.6
85°	2382.0	1544.3	1342.1	1619.4	2591.9	4411.5	2264.5	1663.7
87.5°	1009.0	606.6	367.8	727.9	1440.3	3233.1	627.7	323.5
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)