

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: P270452

Luminaire Tested: **NAV-AF-03-D-UNV-SLL-7027-1200**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P270452  
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-03-D-UNV-SLL-7027-1200  
Description: NAVION ROADWAY AND AREA LUMINAIRE  
(3) 70 CRI, 2700K, 1200mA LIGHTSQUARES WITH 16 LEDS EACH AND SPILL LIGHT  
ELIMINATOR LEFT OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 15247.3 lumens  
Efficiency: N/A  
Efficacy: 79.8 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 1.5' x H: 0')  
IES Classification: Type IV - Short - Non-Cutoff  
BUG Rating: B2 - U0 - G3

Input Watts (W): 191  
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

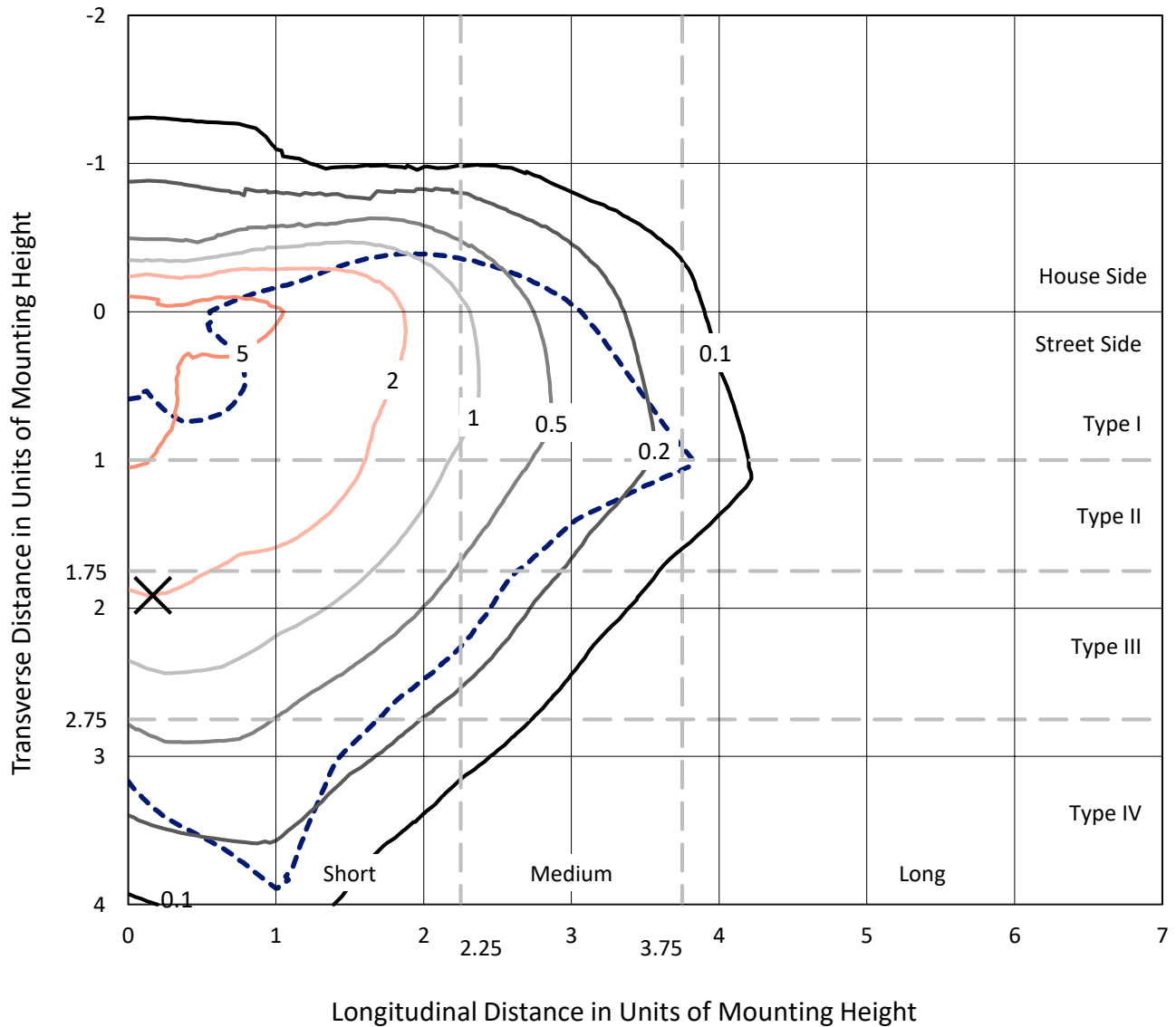


REPORT NUMBER: P270452

CATALOG NUMBER: NAV-AF-03-D-UNV-SLL-7027-1200

### Iso-Footcandle Lines of Horizontal Illumination

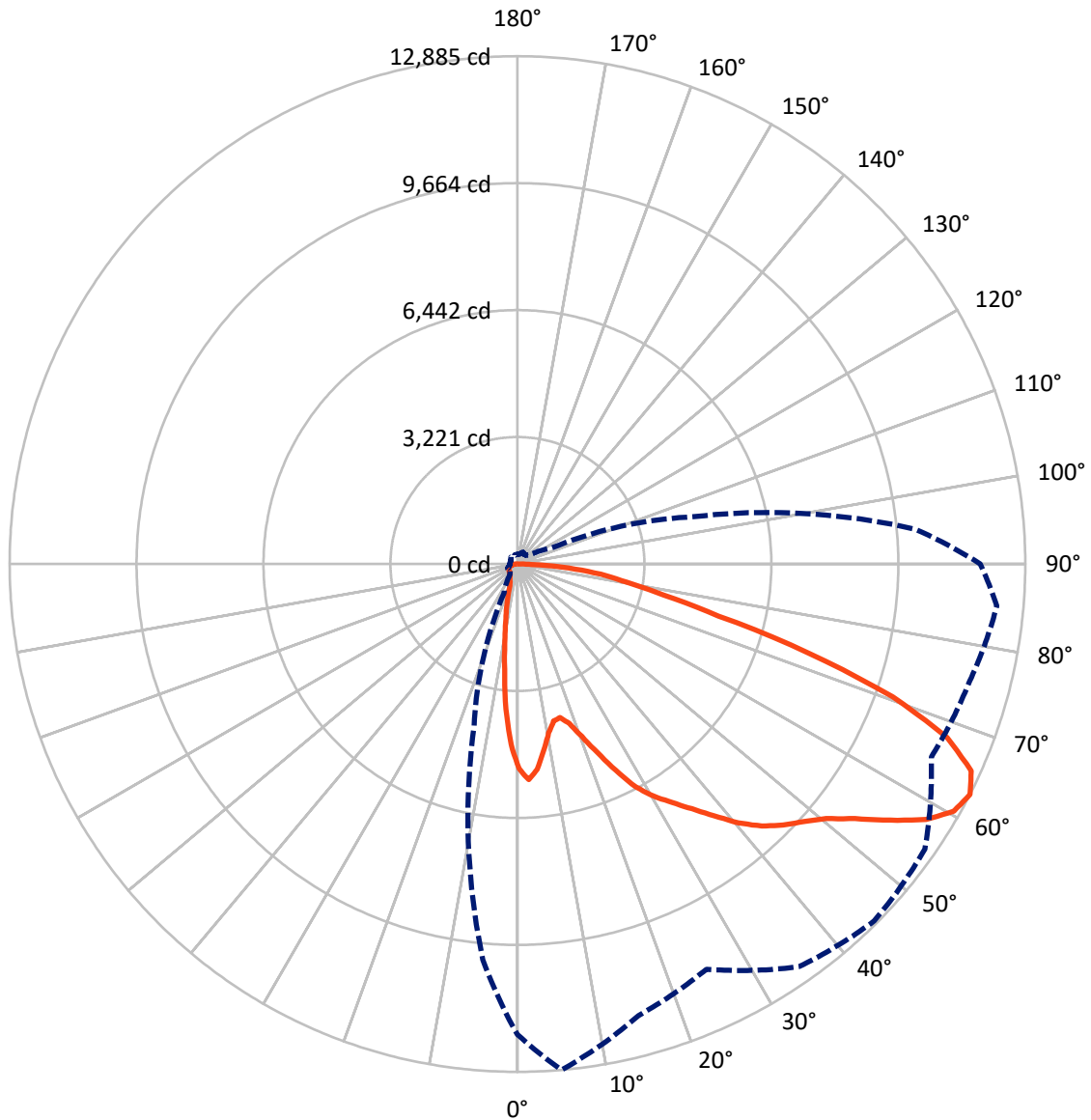
× Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 9.5 fc  
 Type IV - Short - Non-Cutoff

REPORT NUMBER: P270452  
CATALOG NUMBER: NAV-AF-03-D-UNV-SLL-7027-1200

### Luminous Intensity Polar Plot



— Vertical Plane Through 5-Deg Lateral      - - - Horizontal Cone Through 62.5-Deg Vertical

REPORT NUMBER: P270452

CATALOG NUMBER: NAV-AF-03-D-UNV-SLL-7027-1200

**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	2701.1	0.0	2701.1
	% Fixture	17.7	0.0	17.7
<b>Street Side</b>	Lumens	12546.2	0.0	12546.2
	% Fixture	82.3	0.0	82.3
<b>Total</b>	Lumens	15247.3	0.0	15247.3
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	378.0	2.5
10°-20°	690.5	4.5
20°-30°	993.1	6.5
30°-40°	1521.0	10.0
40°-50°	2223.7	14.6
50°-60°	3235.6	21.2
60°-70°	3748.8	24.6
70°-80°	1954.2	12.8
80°-90°	502.3	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°	15247.3	100.0
0°-180°	15247.3	100.0

**Coefficient of Utilization**



REPORT NUMBER: P270452

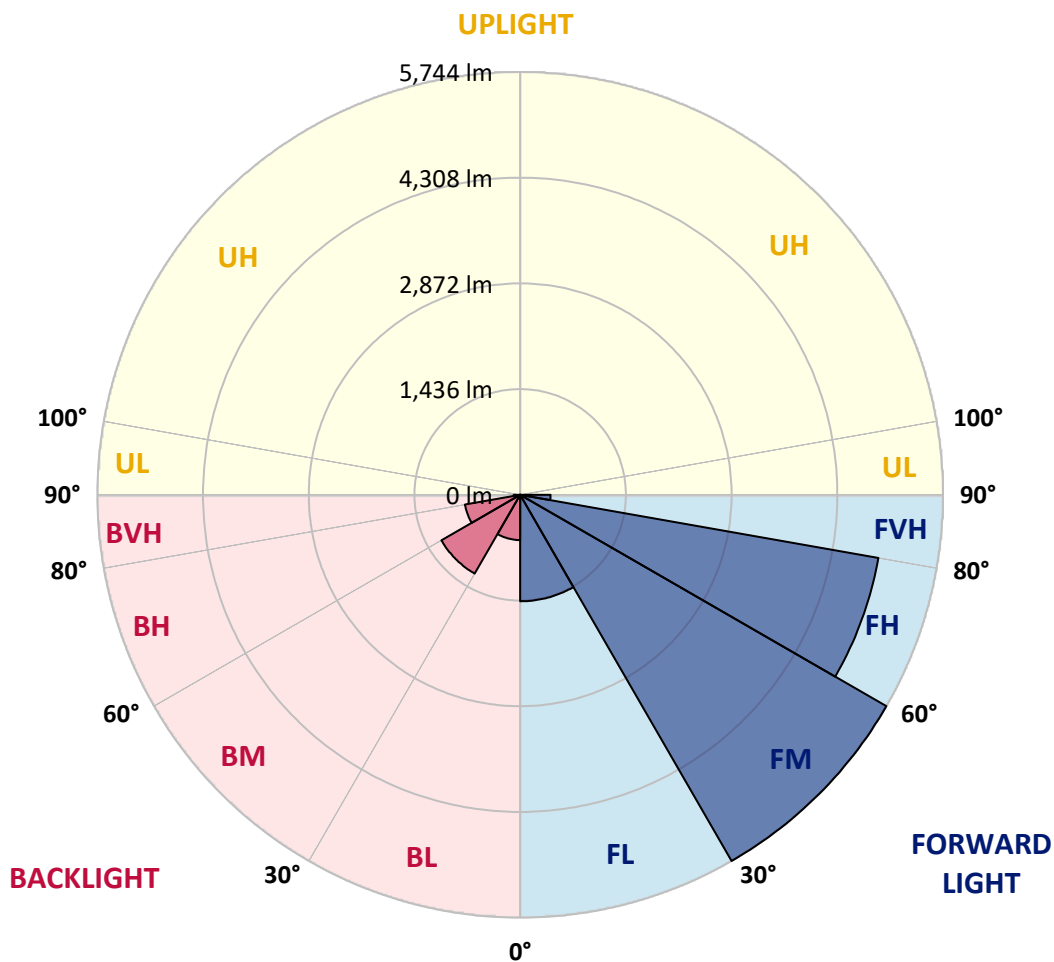
CATALOG NUMBER: NAV-AF-03-D-UNV-SLL-7027-1200

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

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1447.0	9.5			
FM (30°-60°)	5744.5	37.7			
FH (60°-80°)	4941.4	32.4			G2/5000
FVH (80°-90°)	413.3	2.7			G3/500
BL (0°-30°)	614.5	4.0	B2/1000		
BM (30°-60°)	1235.8	8.1	B2/2500		
BH (60°-80°)	761.6	5.0	B2/1000		G2/1000
BVH (80°-90°)	89.1	0.6			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B2-U0-G3**

Type IV Short





REPORT NUMBER: P270452

CATALOG NUMBER: NAV-AF-03-D-UNV-SLL-7027-1200

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	5198.1	5198.1	5198.1	5198.1	5198.1	5198.1	5198.1	5198.1	5198.1	5198.1	5198.1
2.5°	5366.1	5480.0	5610.5	5780.8	5896.8	5943.2	5982.0	5916.6	5853.6	5735.4	5693.4
5°	5012.5	5231.3	5590.6	5932.1	6232.9	6405.4	6458.5	6337.9	6123.4	5813.9	5650.2
7.5°	4487.3	4775.7	5281.0	5784.0	6215.3	6502.7	6523.6	6284.8	5862.5	5355.1	5089.7
10°	4028.4	4354.7	4939.4	5502.1	5958.6	6252.7	6195.3	5860.4	5350.7	4773.7	4474.0
12.5°	3762.0	4088.1	4684.0	5255.7	5685.6	5797.3	5680.2	5398.3	4915.0	4336.8	4035.0
15°	3705.7	4041.7	4593.5	5075.5	5341.9	5269.9	5153.8	5011.3	4667.5	4194.2	3902.4
17.5°	3875.9	4251.8	4713.9	4978.0	4967.1	4794.7	4697.2	4724.9	4666.3	4349.1	4044.0
20°	4226.3	4670.7	5020.1	4951.5	4668.6	4426.5	4370.1	4586.7	4857.7	4737.1	4402.1
22.5°	4687.4	5193.7	5438.0	5027.9	4512.6	4251.8	4240.8	4579.0	5205.9	5324.2	4916.2
25°	5208.1	5798.4	5859.3	5162.6	4496.0	4236.2	4226.3	4698.4	5624.8	5905.6	5492.1
27.5°	5844.8	6408.7	6210.7	5342.8	4569.0	4281.6	4288.2	4901.8	6061.6	6480.6	6141.2
30°	6324.6	6842.0	6427.5	5519.8	4686.3	4361.2	4377.8	5121.9	6296.9	6879.6	6659.7
32.5°	6773.5	7212.3	6635.3	5694.4	4857.7	4479.6	4537.0	5395.9	6580.1	7222.4	7149.3
35°	7269.9	7626.9	6866.4	5881.4	5103.0	4687.4	4770.3	5656.8	6860.9	7564.9	7634.6
37.5°	7832.5	8101.2	7117.4	6145.6	5456.8	5072.1	5118.5	5923.3	7056.5	7944.3	8155.4
40°	8418.5	8632.9	7391.4	6498.2	5970.9	5591.7	5613.8	6264.9	7210.2	8336.7	8660.6
42.5°	8921.4	9088.4	7666.8	6936.0	6561.2	6121.2	6140.1	6633.1	7357.2	8674.9	9065.2
45°	9323.9	9446.5	7926.6	7397.0	7191.3	6782.4	6777.9	7007.9	7553.9	8960.1	9375.8
47.5°	9698.6	9763.9	8216.2	7845.7	7844.7	7633.5	7475.4	7450.1	7816.0	9200.0	9646.7
50°	10127.6	10151.9	8598.7	8299.1	8643.0	8609.7	8317.9	8011.7	8155.4	9469.8	9930.9
52.5°	10724.5	10725.7	9072.9	8741.2	9524.0	9629.0	9289.6	8647.4	8657.2	9994.9	10421.6
55°	11426.6	11475.2	9690.9	9270.8	10446.0	10625.1	10305.5	9402.4	9378.0	10841.7	11217.7
57.5°	11969.3	12227.0	10410.5	9933.0	11307.1	11540.4	11282.8	10185.1	10263.6	11715.1	11874.2
60°	12121.9	12724.4	11128.1	10675.9	12035.8	12386.1	12124.2	11030.7	11130.3	12282.3	12063.2
62.5°	11939.6	12884.7	11858.9	11341.5	12467.9	12804.0	12616.1	11584.6	11836.6	12209.3	11743.8
65°	11399.0	12652.5	12493.4	11624.4	12219.3	12338.6	12288.9	11613.4	12220.4	11519.4	10860.6
67.5°	10136.5	11757.0	12210.4	11019.8	11057.3	10929.0	10863.8	10824.0	11789.1	10406.1	9467.5
70°	8243.7	10102.2	10860.6	9222.2	8943.5	8819.7	8605.4	9135.9	10596.3	8866.2	7791.7
72.5°	6350.1	7728.7	8908.2	6991.2	6411.9	6454.0	6210.7	6985.7	8777.8	6854.2	5948.8
75°	4509.4	5269.9	7110.7	5023.4	4256.2	4254.1	4235.1	5027.9	6926.0	4919.5	4352.4
77.5°	3250.2	3794.1	5570.7	3361.8	3020.2	3059.0	2997.0	3417.2	5399.4	3538.8	3224.7
80°	2592.4	2809.1	3600.6	2242.0	2248.5	2339.2	2326.0	2337.0	3552.0	2562.5	2411.1
82.5°	1862.7	2132.5	2752.8	1718.0	1487.0	1583.2	1601.9	1733.4	2506.2	1811.9	1589.7
85°	955.2	1300.0	2532.7	1488.0	929.7	770.6	886.5	1367.5	2176.8	1085.6	775.0
87.5°	185.7	360.4	1856.2	826.9	417.9	211.1	348.3	579.2	1265.8	196.8	96.2
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: P270452

CATALOG NUMBER: NAV-AF-03-D-UNV-SLL-7027-1200

**CANDELA DISTRIBUTION (continued):**

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°	185°
0°	5198.1	5198.1	5198.1	5198.1	5198.1	5198.1	5198.1	5198.1	5198.1	5198.1	5198.1
2.5°	5621.6	5480.0	5347.4	5210.3	5104.1	4974.9	4847.7	4737.1	4629.9	4559.1	4581.3
5°	5484.4	5139.6	4829.9	4542.5	4374.4	4172.2	3992.0	3840.6	3723.4	3648.1	3693.6
7.5°	4859.8	4393.3	3985.4	3606.2	3367.3	3105.4	2895.3	2747.1	2656.6	2605.8	2679.7
10°	4220.9	3696.9	3239.2	2844.5	2608.9	2386.7	2196.6	2039.7	1918.2	1860.6	1890.5
12.5°	3763.2	3180.5	2700.8	2435.5	2233.1	2034.1	1837.4	1653.8	1499.1	1428.3	1413.9
15°	3591.9	2903.1	2413.3	2117.0	1915.8	1699.1	1487.0	1290.1	1143.2	1082.3	1069.1
17.5°	3667.1	2843.3	2243.1	1892.5	1600.8	1337.7	1098.8	913.1	804.8	770.6	773.9
20°	3931.3	2865.6	2105.9	1661.5	1301.1	989.5	750.7	622.3	576.0	568.3	577.2
22.5°	4293.8	2956.1	2006.5	1462.6	1037.0	719.7	558.2	497.5	485.4	484.1	493.1
25°	4772.4	3133.0	1940.2	1285.7	819.2	570.5	486.4	452.1	442.1	444.4	453.3
27.5°	5336.3	3357.4	1897.1	1133.1	673.3	508.5	454.4	424.4	414.6	416.8	423.5
30°	5851.5	3554.2	1832.9	1018.1	604.6	486.4	436.7	406.8	393.5	393.5	397.9
32.5°	6312.5	3724.5	1757.8	931.9	541.7	436.7	395.8	372.5	362.6	365.9	368.1
35°	6721.5	3814.1	1699.1	881.1	490.8	402.4	361.5	337.1	323.8	326.2	329.5
37.5°	7123.9	3848.2	1660.4	853.5	454.4	381.4	343.8	323.8	309.6	307.3	306.2
40°	7506.4	3840.6	1624.0	845.8	430.1	365.9	332.7	315.0	300.8	297.3	296.4
42.5°	7837.0	3815.1	1589.7	824.7	413.5	354.9	323.8	308.5	294.0	289.7	287.5
45°	8138.7	3799.7	1552.1	785.9	422.4	350.5	319.4	302.9	289.7	284.1	281.9
47.5°	8473.7	3854.9	1510.1	743.9	420.0	351.5	319.4	300.8	287.5	281.9	279.7
50°	8872.7	4041.7	1458.2	686.6	400.1	375.9	318.4	297.3	285.2	281.9	277.4
52.5°	9436.6	4344.7	1386.4	612.5	384.7	401.4	317.3	291.9	281.9	276.4	270.8
55°	10209.3	4647.7	1293.5	534.0	360.4	383.7	319.4	285.2	274.2	268.7	261.9
57.5°	10842.8	4877.4	1176.3	468.7	338.3	362.6	316.2	277.4	265.3	259.8	254.3
60°	10801.9	4899.6	1064.6	426.8	325.0	326.2	323.8	271.9	257.5	253.1	248.7
62.5°	10133.2	4626.6	960.6	405.8	315.0	297.3	330.5	265.3	249.9	245.4	242.2
65°	9019.9	3990.9	905.4	405.8	306.2	281.9	288.5	256.5	242.2	237.7	235.4
67.5°	7608.1	3207.0	853.5	414.6	294.0	270.8	261.9	247.7	234.4	230.0	227.7
70°	6098.1	2523.9	817.0	410.2	283.1	258.7	247.7	235.4	222.2	221.2	218.8
72.5°	4783.6	2027.6	800.4	410.2	266.4	244.2	233.3	224.4	211.1	210.1	206.7
75°	3832.8	1522.3	731.8	402.4	249.9	225.6	215.6	207.9	194.6	195.7	193.4
77.5°	2968.3	1076.8	611.3	362.6	228.9	204.5	196.8	191.2	175.8	176.8	176.8
80°	2321.6	700.9	474.2	300.8	204.5	180.2	174.7	170.3	153.7	155.9	155.9
82.5°	1590.8	416.8	343.8	242.2	175.8	153.7	152.5	146.0	128.3	129.4	131.5
85°	868.9	274.2	228.9	179.1	138.2	125.0	122.7	119.4	102.9	102.9	103.9
87.5°	160.3	147.1	134.8	118.2	92.9	89.6	86.2	89.6	77.3	75.2	75.2
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: P270452

CATALOG NUMBER: NAV-AF-03-D-UNV-SLL-7027-1200

**CANDELA DISTRIBUTION (continued):**

	195°	205°	215°	225°	235°	245°	255°	265°	270°	275°	285°
0°	5198.1	5198.1	5198.1	5198.1	5198.1	5198.1	5198.1	5198.1	5198.1	5198.1	5198.1
2.5°	4529.3	4453.0	4400.0	4353.5	4241.8	4249.6	4265.1	4287.3	4217.5	4254.1	4299.4
5°	3648.1	3585.1	3537.6	3463.5	3307.6	3252.5	3217.0	3201.6	3097.6	3119.8	3168.4
7.5°	2689.7	2688.5	2672.0	2589.2	2401.2	2287.4	2212.2	2188.9	2124.9	2149.1	2223.1
10°	1893.7	1913.6	1905.9	1831.9	1663.8	1581.9	1565.3	1611.7	1612.9	1660.4	1787.5
12.5°	1368.6	1357.6	1347.5	1286.8	1160.8	1147.6	1185.1	1249.3	1264.8	1315.6	1448.2
15°	1021.6	995.0	989.5	942.0	859.0	871.1	898.8	931.9	933.1	968.5	1077.8
17.5°	766.2	766.2	775.0	743.9	684.2	678.8	664.3	655.6	642.3	656.8	716.4
20°	594.8	622.3	644.5	626.8	572.7	546.1	518.5	500.7	490.8	491.9	509.7
22.5°	509.7	531.7	560.5	551.6	506.4	472.1	454.4	442.1	434.5	434.5	444.4
25°	466.5	481.0	507.5	503.1	464.3	436.7	422.4	410.2	401.4	400.1	410.2
27.5°	432.3	441.1	458.8	456.6	416.8	399.0	390.3	382.5	377.0	375.9	385.8
30°	401.4	405.8	414.6	411.2	381.4	363.8	360.4	357.0	353.8	354.9	369.3
32.5°	373.6	377.0	382.5	378.0	349.4	333.9	328.3	323.8	320.5	323.8	340.5
35°	342.8	352.7	359.3	357.0	326.2	307.3	295.2	284.1	279.7	283.1	301.8
37.5°	316.2	332.7	341.5	339.4	307.3	285.2	269.8	267.5	267.5	271.9	290.7
40°	306.2	318.4	326.2	322.9	290.7	268.7	259.8	256.5	257.5	261.9	281.9
42.5°	297.3	308.5	310.6	304.0	271.9	257.5	252.1	247.7	249.9	255.4	275.3
45°	289.7	298.4	297.3	287.5	256.5	246.6	246.6	243.3	244.2	248.7	269.8
47.5°	284.1	288.5	286.3	276.4	245.4	237.7	240.9	240.9	243.3	246.6	267.5
50°	275.3	278.6	276.4	267.5	236.6	230.0	233.3	237.7	239.8	243.3	261.9
52.5°	266.4	268.7	267.5	258.7	227.7	223.3	223.3	227.7	232.1	236.6	253.1
55°	257.5	259.8	260.9	254.3	221.2	216.8	215.6	215.6	219.9	226.6	244.2
57.5°	250.9	250.9	253.1	248.7	214.4	208.9	203.5	204.5	210.1	215.6	233.3
60°	243.3	244.2	247.7	243.3	205.6	196.8	192.3	197.8	200.1	205.6	224.4
62.5°	236.6	236.6	238.8	235.4	197.8	189.1	185.7	191.2	191.2	196.8	215.6
65°	231.0	230.0	230.0	228.9	190.1	181.3	179.1	181.3	182.4	187.9	206.7
67.5°	226.6	221.2	221.2	223.3	182.4	173.6	172.5	172.5	173.6	180.2	196.8
70°	216.8	212.3	211.1	218.8	174.7	163.6	163.6	161.3	163.6	166.9	184.6
72.5°	205.6	202.3	201.2	212.3	166.9	152.5	150.3	149.3	150.3	153.7	170.3
75°	191.2	189.1	191.2	207.9	159.2	140.3	137.1	136.0	136.0	137.1	154.8
77.5°	174.7	172.5	189.1	193.4	154.8	126.0	122.7	120.6	118.2	118.2	138.2
80°	154.8	153.7	182.4	163.6	148.1	110.5	105.0	101.7	99.5	98.4	118.2
82.5°	134.8	132.7	155.9	128.3	122.7	90.6	83.0	76.3	72.9	72.9	90.6
85°	110.5	109.5	122.7	94.0	85.1	66.4	55.2	49.8	45.4	45.4	58.6
87.5°	80.7	78.5	76.3	56.4	43.1	29.9	21.0	19.9	17.6	16.6	24.3
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: P270452

CATALOG NUMBER: NAV-AF-03-D-UNV-SLL-7027-1200

**CANDELA DISTRIBUTION (continued):**

	295°	305°	315°	325°	335°	345°	355°	360°
0°	5198.1	5198.1	5198.1	5198.1	5198.1	5198.1	5198.1	5198.1
2.5°	4366.8	4458.5	4632.1	4774.8	4964.8	5117.5	5290.9	5366.1
5°	3258.0	3402.8	3668.0	3894.7	4208.6	4499.4	4831.1	5012.5
7.5°	2337.0	2551.5	2752.8	3035.7	3428.2	3818.4	4247.4	4487.3
10°	1933.5	2130.3	2302.7	2503.9	2806.9	3245.8	3757.6	4028.4
12.5°	1601.9	1814.1	1996.6	2212.2	2466.3	2863.3	3446.9	3762.0
15°	1228.3	1459.2	1678.2	1938.0	2249.7	2703.0	3354.1	3705.7
17.5°	841.4	1088.9	1358.6	1676.0	2051.8	2635.5	3442.6	3875.9
20°	571.5	752.9	1045.7	1421.7	1873.9	2603.5	3637.1	4226.3
22.5°	469.9	551.6	771.6	1182.9	1727.9	2638.9	3953.4	4687.4
25°	431.1	475.4	600.2	972.9	1616.3	2732.9	4381.2	5208.1
27.5°	406.8	444.4	526.2	822.5	1513.5	2861.0	4901.8	5844.8
30°	392.5	427.9	496.4	745.1	1419.5	2971.7	5349.5	6324.6
32.5°	360.4	386.9	443.4	700.9	1352.0	3061.2	5744.2	6773.5
35°	321.8	353.8	400.1	672.1	1349.9	3103.1	6115.8	7269.9
37.5°	307.3	338.3	372.5	656.8	1363.1	3138.6	6570.1	7832.5
40°	298.4	326.2	353.8	654.4	1374.1	3166.2	7014.4	8418.5
42.5°	290.7	318.4	350.5	639.0	1369.7	3203.7	7408.1	8921.4
45°	288.5	316.2	358.2	615.8	1368.6	3262.4	7720.9	9323.9
47.5°	286.3	328.3	356.0	590.4	1364.2	3386.3	8073.5	9698.6
50°	284.1	350.5	340.5	555.0	1331.0	3597.4	8547.8	10127.6
52.5°	283.1	353.8	323.8	506.4	1271.3	3910.2	9242.1	10724.5
55°	278.6	336.1	295.2	442.1	1185.1	4247.4	9986.1	11426.6
57.5°	268.7	299.6	278.6	379.2	1061.3	4482.8	10535.5	11969.3
60°	292.9	257.5	267.5	347.1	913.1	4524.9	10559.8	12121.9
62.5°	279.7	234.4	256.5	336.1	809.3	4250.7	10076.7	11939.6
65°	223.3	222.2	246.6	347.1	793.7	3637.1	9260.8	11399.0
67.5°	203.5	213.3	236.6	360.4	803.8	2865.6	8060.3	10136.5
70°	190.1	202.3	223.3	372.5	821.4	2257.4	6489.4	8243.7
72.5°	176.8	186.8	210.1	384.7	809.3	1781.0	5193.7	6350.1
75°	160.3	169.2	191.2	352.7	694.3	1308.9	4126.9	4509.4
77.5°	141.6	149.3	168.1	278.6	521.7	910.9	3091.0	3250.2
80°	121.6	125.0	139.2	203.5	340.5	545.0	2352.5	2592.4
82.5°	96.2	97.2	106.1	149.3	212.3	348.3	1631.7	1862.7
85°	62.0	64.0	68.5	105.0	142.7	223.3	833.5	955.2
87.5°	21.0	24.3	24.3	50.8	69.7	123.8	255.4	185.7
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)