

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: P196728

Luminaire Tested: **NAV-AF-06-D-UNV-SLR-7030-1200**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P196728
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-7030-1200
Description: NAVION ROADWAY AND AREA LUMINAIRE
(6) 70 CRI, 3000K, 1200mA 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: 33754.6 lumens
Efficiency: N/A
Efficacy: 88.4 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 - G5

Input Watts (W): 382
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

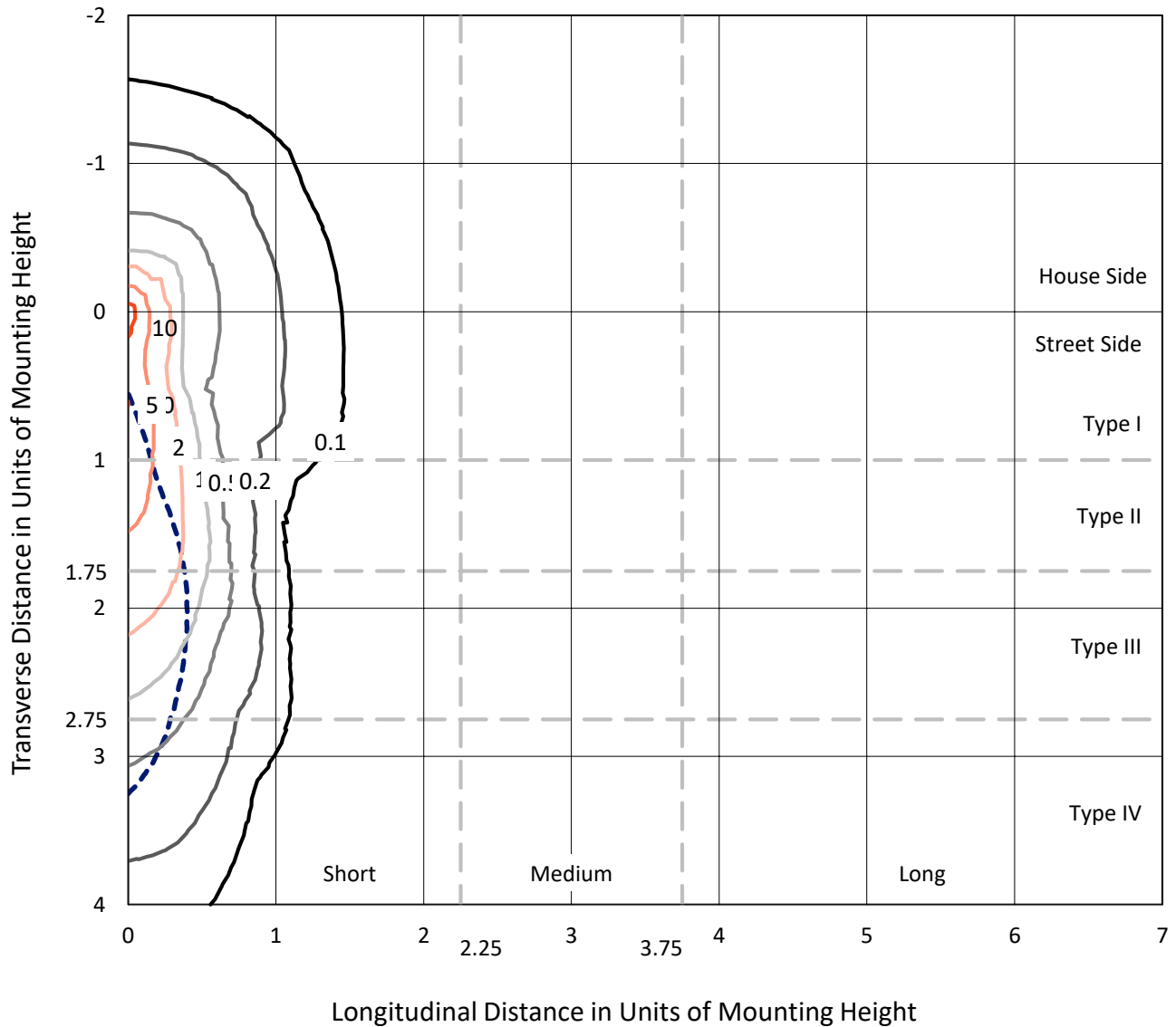


REPORT NUMBER: P196728

CATALOG NUMBER: NAV-AF-06-D-UNV-SLR-7030-1200

Iso-Footcandle Lines of Horizontal Illumination

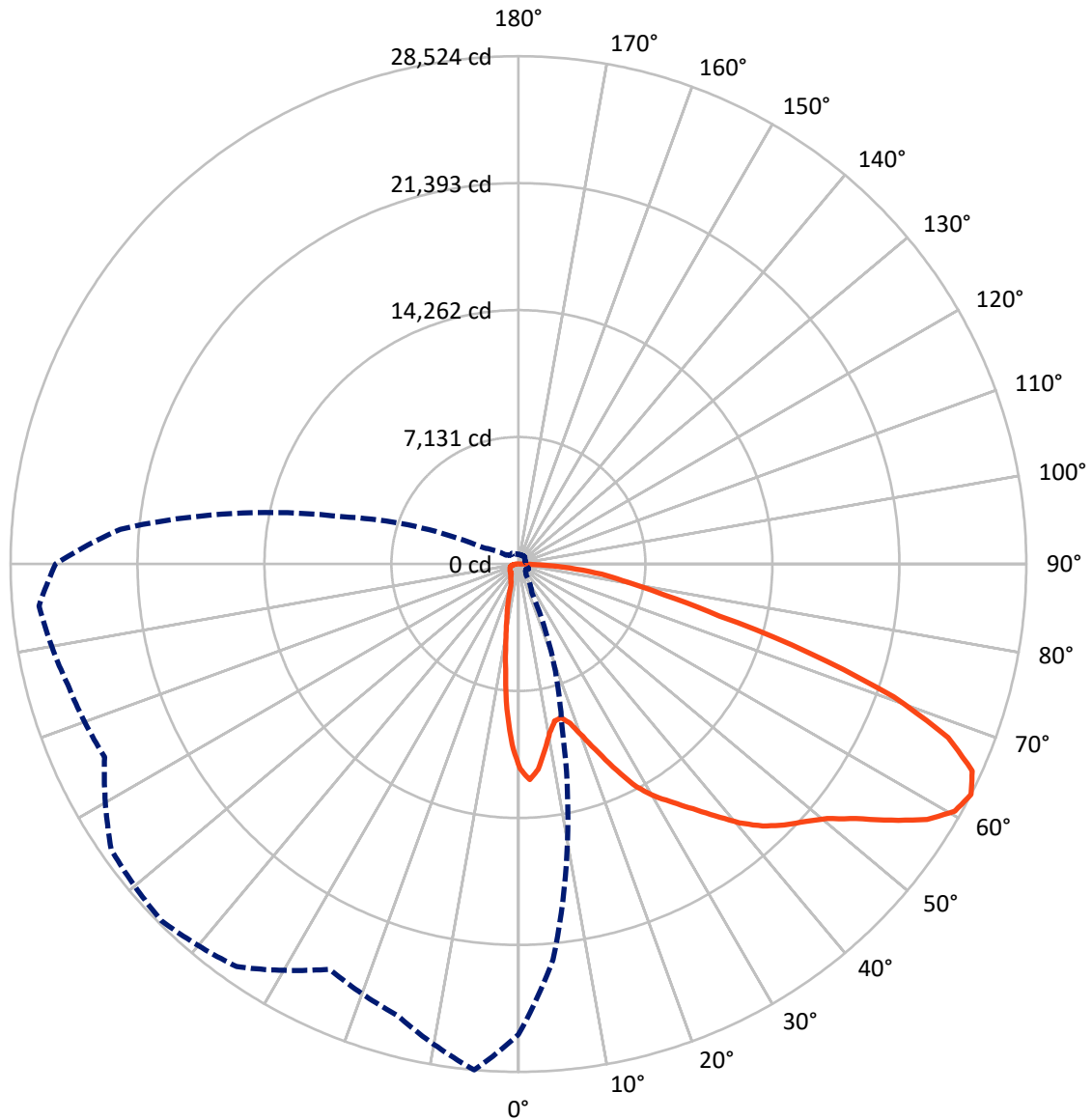
× Max cd
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 12.8 fc
 Type IV - Short - Non-Cutoff

REPORT NUMBER: P196728
CATALOG NUMBER: NAV-AF-06-D-UNV-SLR-7030-1200

Luminous Intensity Polar Plot



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

REPORT NUMBER: P196728

CATALOG NUMBER: NAV-AF-06-D-UNV-SLR-7030-1200

FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	5979.7	0.0	5979.7
	% Fixture	17.7	0.0	17.7
Street Side	Lumens	27774.9	0.0	27774.9
	% Fixture	82.3	0.0	82.3
Total	Lumens	33754.6	0.0	33754.6
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	836.9	2.5
10°-20°	1528.6	4.5
20°-30°	2198.5	6.5
30°-40°	3367.2	10.0
40°-50°	4922.9	14.6
50°-60°	7162.9	21.2
60°-70°	8299.2	24.6
70°-80°	4326.3	12.8
80°-90°	1112.1	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°	33754.6	100.0
0°-180°	33754.6	100.0



REPORT NUMBER: P196728

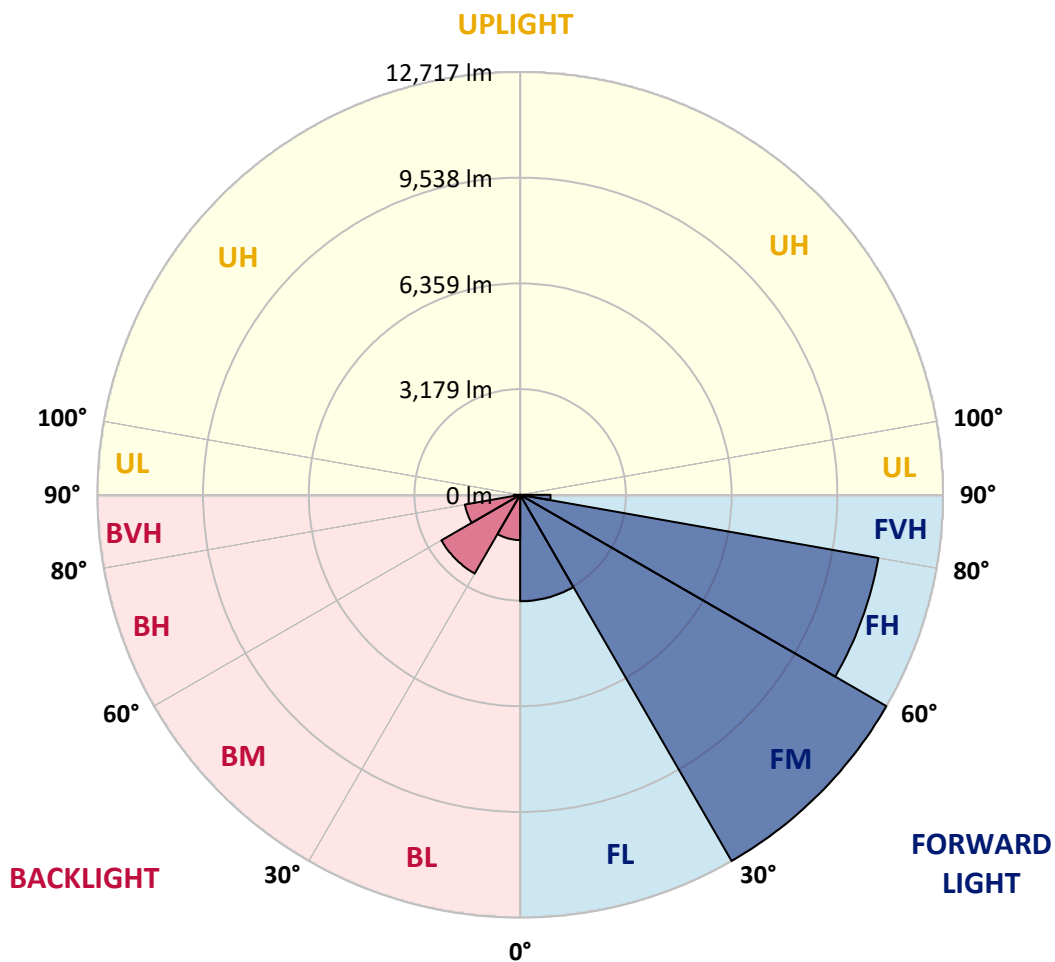
CATALOG NUMBER: NAV-AF-06-D-UNV-SLR-7030-1200

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	3203.5	9.5			
FM (30°-60°)	12717.2	37.7			
FH (60°-80°)	10939.4	32.4			G4/12000
FVH (80°-90°)	914.9	2.7			G5
BL (0°-30°)	1360.5	4.0	B3/2500		
BM (30°-60°)	2735.9	8.1	B3/5000		
BH (60°-80°)	1686.1	5.0	B3/2500		G3/2500
BVH (80°-90°)	197.2	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-G5

Type IV Short





REPORT NUMBER: P196728

CATALOG NUMBER: NAV-AF-06-D-UNV-SLR-7030-1200

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	11507.6	11507.6	11507.6	11507.6	11507.6	11507.6	11507.6	11507.6	11507.6	11507.6	11507.6
2.5°	11879.6	11713.1	11329.0	10991.2	10570.3	10254.5	9870.3	9667.1	9517.9	9417.5	9336.8
5°	11096.5	10695.1	9960.8	9317.2	8622.0	8120.3	7533.1	7212.4	7014.2	6906.5	6857.5
7.5°	9934.0	9402.9	8453.3	7589.3	6720.5	6093.9	5648.6	5173.8	4921.7	4757.7	4703.8
10°	8918.3	8318.7	7185.6	6213.9	5543.4	5097.9	4716.0	4280.4	3957.4	3675.9	3570.7
12.5°	8328.4	7631.0	6338.6	5460.1	4897.2	4420.0	4016.2	3546.2	3206.1	2912.5	2799.8
15°	8203.6	7425.4	5983.8	4980.5	4290.3	3715.2	3230.6	2719.0	2386.2	2143.8	2065.5
17.5°	8580.5	7621.2	5834.6	4542.4	3710.2	3007.8	2410.7	1862.5	1585.9	1453.7	1421.9
20°	9356.3	8051.9	5763.5	4148.3	3147.3	2315.2	1666.6	1265.3	1128.2	1089.1	1086.7
22.5°	10376.9	8751.8	5841.9	3825.2	2618.7	1708.3	1221.2	1040.1	983.9	961.8	961.8
25°	11529.6	9699.0	6049.9	3578.0	2153.7	1328.9	1052.3	954.5	908.0	886.0	888.4
27.5°	12939.3	10851.7	6333.9	3350.4	1820.8	1164.9	983.9	900.7	854.2	832.1	834.5
30°	14001.5	11842.9	6578.6	3142.4	1649.5	1098.9	947.2	868.8	817.5	785.6	783.2
32.5°	14995.1	12716.5	6776.8	2993.1	1551.6	981.3	856.6	797.8	753.8	717.1	709.7
35°	16094.0	13539.0	6869.7	2988.2	1488.0	886.0	783.2	712.2	668.1	626.5	619.2
37.5°	17339.7	14544.8	6948.2	3017.6	1453.7	824.8	748.9	680.3	643.6	602.0	592.3
40°	18636.8	15528.7	7009.3	3042.1	1448.9	783.2	721.9	660.8	624.1	580.0	570.3
42.5°	19750.4	16400.0	7092.6	3032.3	1414.6	775.8	704.8	643.6	609.4	565.3	553.1
45°	20641.3	17092.5	7222.2	3029.9	1363.2	793.0	700.0	638.7	597.2	550.6	540.9
47.5°	21470.9	17873.2	7496.4	3020.0	1306.8	788.1	726.9	633.9	592.3	545.8	538.4
50°	22420.4	18923.1	7963.8	2946.6	1228.6	753.8	775.8	629.0	580.0	538.4	531.1
52.5°	23742.0	20460.1	8656.4	2814.5	1120.9	717.1	783.2	626.5	560.5	523.8	513.9
55°	25296.1	22107.2	9402.9	2623.7	979.0	653.5	744.0	616.8	540.9	501.7	487.1
57.5°	26497.8	23323.6	9924.1	2349.5	839.4	616.8	663.2	594.7	516.4	477.3	465.0
60°	26835.6	23377.4	10017.1	2021.6	768.5	592.3	570.3	648.6	496.8	455.2	442.9
62.5°	26431.8	22307.9	9410.2	1791.6	744.0	567.8	518.9	619.2	477.3	435.6	423.4
65°	25234.9	20501.7	8051.9	1757.2	768.5	545.8	491.8	494.4	457.7	416.1	403.8
67.5°	22440.1	17843.9	6343.6	1779.3	797.8	523.8	472.3	450.3	435.6	398.9	384.3
70°	18250.1	14366.2	4997.5	1818.4	824.8	494.4	447.9	420.9	408.7	369.6	362.2
72.5°	14057.8	11497.8	3942.7	1791.6	851.6	465.0	413.6	391.5	377.0	340.3	332.8
75°	9982.9	9136.0	2897.7	1537.0	780.7	423.4	374.4	354.9	342.6	303.5	301.0
77.5°	7195.3	6842.9	2016.6	1155.2	616.8	372.0	330.4	313.2	305.9	261.9	261.9
80°	5739.2	5208.1	1206.5	753.8	450.3	308.3	276.5	269.3	261.9	217.9	220.2
82.5°	4123.9	3612.3	771.0	470.0	330.4	234.9	215.3	212.9	200.7	161.4	161.4
85°	2114.5	1845.3	494.4	315.8	232.5	151.8	141.9	137.0	129.7	100.3	100.3
87.5°	411.2	565.3	274.1	154.2	112.5	53.9	53.9	46.6	53.9	36.7	39.2
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: P196728

CATALOG NUMBER: NAV-AF-06-D-UNV-SLR-7030-1200

CANDELA DISTRIBUTION (continued):

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°	185°
0°	11507.6	11507.6	11507.6	11507.6	11507.6	11507.6	11507.6	11507.6	11507.6	11507.6	11507.6
2.5°	9491.0	9441.9	9407.8	9390.7	9637.8	9740.6	9858.0	10026.9	10142.0	10093.1	10249.6
5°	7087.6	7121.8	7200.1	7322.5	7667.7	7831.6	7936.9	8076.3	8176.8	8076.3	8242.7
7.5°	4845.8	4897.2	5063.6	5315.7	5731.7	5915.3	5952.0	5954.5	5932.4	5768.5	5881.1
10°	3568.3	3465.4	3502.2	3683.3	4055.2	4219.3	4236.4	4192.4	4185.0	4119.0	4246.3
12.5°	2765.6	2623.7	2540.4	2569.8	2848.7	2983.4	3005.4	3029.9	3130.2	3162.1	3318.6
15°	2063.2	1989.7	1928.5	1901.6	2085.2	2190.4	2202.6	2261.3	2366.7	2395.9	2530.6
17.5°	1451.3	1470.8	1502.7	1514.9	1647.1	1715.6	1696.0	1696.0	1713.1	1705.9	1781.7
20°	1108.7	1147.9	1209.0	1267.7	1387.7	1426.8	1377.9	1316.7	1277.6	1257.9	1275.0
22.5°	979.0	1005.8	1045.1	1120.9	1221.2	1240.8	1177.2	1128.2	1091.5	1072.0	1074.4
25°	908.0	934.9	966.7	1027.9	1113.6	1123.4	1064.6	1032.8	1003.4	983.9	979.0
27.5°	846.8	863.9	883.5	922.7	1010.7	1015.7	976.6	956.9	937.3	922.7	917.8
30°	790.5	797.8	805.2	844.3	910.4	917.8	898.2	888.4	881.0	871.3	871.3
32.5°	717.1	726.9	739.1	773.3	837.0	846.8	834.5	827.2	815.0	810.0	802.7
35°	629.0	653.5	680.3	721.9	790.5	795.4	780.7	758.7	729.3	721.9	717.1
37.5°	592.3	597.2	631.4	680.3	751.3	756.3	736.6	700.0	678.0	680.3	685.3
40°	567.8	575.1	594.7	643.6	714.7	721.9	704.8	678.0	655.9	658.4	665.7
42.5°	548.3	558.0	570.3	602.0	673.0	687.7	682.9	658.4	636.3	641.3	650.9
45°	538.4	545.8	545.8	567.8	636.3	658.4	660.8	641.3	624.1	629.0	641.3
47.5°	533.5	533.5	526.2	543.3	611.9	633.9	638.7	629.0	619.2	624.1	636.3
50°	526.2	516.4	509.0	523.8	592.3	611.9	616.8	609.4	614.2	624.1	631.4
52.5°	504.1	494.4	494.4	504.1	572.7	592.3	594.7	589.8	599.7	611.9	624.1
55°	477.3	477.3	479.6	489.5	562.9	577.6	575.1	570.3	580.0	594.7	606.9
57.5°	452.8	450.3	462.6	474.8	550.6	560.5	555.6	555.6	562.9	575.1	587.4
60°	438.1	425.9	435.6	455.2	538.4	548.3	540.9	538.4	550.6	560.5	570.3
62.5°	423.4	411.2	418.5	438.1	521.2	528.6	523.8	523.8	536.0	543.3	553.1
65°	401.4	396.5	401.4	420.9	506.6	509.0	509.0	511.6	521.2	526.2	536.0
67.5°	381.8	381.8	384.3	403.8	494.4	489.5	489.5	501.7	504.1	509.0	518.9
70°	357.3	362.2	362.2	386.7	484.6	467.4	470.0	479.6	484.6	489.5	491.8
72.5°	330.4	332.8	337.7	369.6	470.0	445.4	447.9	455.2	457.7	465.0	467.4
75°	301.0	303.5	310.9	352.5	460.1	423.4	418.5	423.4	428.3	433.2	430.7
77.5°	266.8	271.6	279.0	342.6	428.3	418.5	381.8	386.7	391.5	391.5	389.2
80°	225.2	232.5	244.7	328.0	362.2	403.8	340.3	342.6	345.0	345.0	340.3
82.5°	169.0	183.5	200.7	271.6	283.8	345.0	293.7	298.6	291.2	286.4	283.8
85°	110.2	122.4	146.9	188.5	208.0	271.6	242.3	244.7	230.1	227.6	227.6
87.5°	44.0	46.6	66.1	95.5	124.8	169.0	173.7	178.6	166.4	166.4	171.3
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: P196728

CATALOG NUMBER: NAV-AF-06-D-UNV-SLR-7030-1200

CANDELA DISTRIBUTION (continued):

	195°	205°	215°	225°	235°	245°	255°	265°	270°	275°	285°
0°	11507.6	11507.6	11507.6	11507.6	11507.6	11507.6	11507.6	11507.6	11507.6	11507.6	11507.6
2.5°	10487.0	10731.8	11013.3	11299.6	11534.5	11838.0	12131.7	12444.9	12604.0	12697.0	12958.9
5°	8502.2	8837.6	9236.4	9684.3	10056.3	10692.6	11377.9	12141.4	12508.5	12870.7	13556.1
7.5°	6081.7	6409.7	6874.7	7454.8	7983.3	8822.8	9725.9	10758.6	11267.8	11855.1	12978.5
10°	4515.4	4862.9	5283.9	5775.8	6297.1	7170.8	8184.1	9344.1	9904.6	10567.8	11845.4
12.5°	3661.3	4067.5	4503.2	4943.8	5391.6	5979.0	7041.1	8330.9	8932.9	9601.0	10881.0
15°	2856.1	3291.8	3761.6	4241.3	4686.7	5342.7	6426.8	7951.6	8639.2	9285.4	10332.8
17.5°	2021.6	2432.6	2961.4	3543.9	4189.9	4965.8	6294.7	8118.0	8952.4	9628.0	10330.5
20°	1377.9	1661.8	2190.4	2880.6	3678.4	4662.3	6343.6	8702.9	9745.5	10487.0	10753.9
22.5°	1101.4	1235.9	1593.2	2295.6	3237.9	4442.1	6544.3	9505.7	10883.6	11786.6	11524.7
25°	1001.1	1076.9	1262.8	1813.4	2846.3	4295.2	6935.9	10565.4	12158.6	13074.0	12452.3
27.5°	939.8	1005.8	1125.8	1490.4	2508.6	4199.7	7432.7	11813.5	13595.2	14346.7	13419.0
30°	900.7	966.7	1076.9	1338.8	2254.0	4057.8	7868.3	12954.0	14743.0	15230.0	13940.3
32.5°	824.8	876.1	966.7	1199.2	2063.2	3891.4	8245.2	13974.6	15827.2	15988.8	14566.9
35°	746.5	800.4	890.9	1086.7	1950.6	3761.6	8443.4	14880.1	16901.7	16747.5	15188.4
37.5°	717.1	761.1	844.3	1005.8	1889.4	3675.9	8519.4	15770.9	18054.3	17586.9	15621.7
40°	697.5	736.6	810.0	952.0	1872.2	3595.1	8502.2	16617.8	19172.9	18455.7	15961.8
42.5°	682.9	717.1	785.6	915.4	1825.7	3519.3	8446.0	17349.5	20068.5	19204.6	16287.4
45°	670.7	707.4	775.8	934.9	1740.1	3436.1	8411.7	18017.6	20756.3	19836.0	16723.0
47.5°	665.7	707.4	778.3	930.1	1647.1	3343.2	8534.0	18759.2	21356.0	20367.1	17303.0
50°	658.4	704.8	832.1	886.0	1519.8	3228.1	8947.7	19642.7	21984.8	20964.3	18054.3
52.5°	646.2	702.4	888.4	851.6	1355.8	3069.0	9618.2	20890.9	23071.5	22126.7	19165.5
55°	631.4	707.4	849.3	797.8	1182.0	2863.4	10288.8	22601.6	24833.6	24001.5	20761.1
57.5°	614.2	700.0	802.7	748.9	1037.8	2603.9	10797.9	24003.9	26287.3	25935.0	22721.5
60°	602.0	717.1	721.9	719.6	944.6	2356.8	10846.8	23913.3	26705.8	27190.5	24640.2
62.5°	587.4	731.8	658.4	697.5	898.2	2126.7	10242.3	22432.7	25998.6	27028.9	26204.2
65°	567.8	638.7	624.1	678.0	898.2	2004.4	8835.0	19968.2	24043.1	25501.7	27053.3
67.5°	548.3	580.0	599.7	650.9	917.8	1889.4	7099.8	16842.9	20959.4	23037.2	26098.9
70°	521.2	548.3	572.7	626.5	908.0	1808.6	5587.4	13499.7	17249.2	19628.0	23458.2
72.5°	496.8	516.4	540.9	589.8	908.0	1771.8	4488.5	10589.9	13169.3	15173.8	19432.2
75°	460.1	477.3	499.4	553.1	890.9	1620.2	3370.1	8485.1	9635.3	10890.9	15332.9
77.5°	423.4	435.6	452.8	506.6	802.7	1353.4	2383.7	6571.2	7139.0	7834.1	11953.1
80°	377.0	386.7	398.9	452.8	665.7	1050.0	1551.6	5139.5	5337.8	5673.1	7863.5
82.5°	323.1	337.7	340.3	389.2	536.0	761.1	922.7	3521.8	3519.3	4011.2	5548.1
85°	264.3	271.6	276.5	305.9	396.5	506.6	606.9	1923.6	1715.6	2403.3	4818.9
87.5°	198.2	190.8	198.2	205.6	261.9	298.6	325.5	354.9	212.9	435.6	2802.3
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: P196728

CATALOG NUMBER: NAV-AF-06-D-UNV-SLR-7030-1200

CANDELA DISTRIBUTION (continued):

	295°	305°	315°	325°	335°	345°	355°	360°
0°	11507.6	11507.6	11507.6	11507.6	11507.6	11507.6	11507.6	11507.6
2.5°	13098.4	13242.8	13157.1	13054.3	12797.3	12420.5	12131.7	11879.6
5°	14030.8	14297.6	14180.1	13798.4	13132.6	12376.5	11581.1	11096.5
7.5°	13913.4	14442.0	14395.6	13759.2	12804.7	11691.2	10572.7	9934.0
10°	12973.6	13715.1	13842.4	13191.4	12180.7	10934.8	9640.3	8918.3
12.5°	11950.6	12574.6	12834.0	12586.8	11634.9	10369.6	9050.4	8328.4
15°	11093.9	11409.7	11666.7	11825.7	11235.9	10168.9	8947.7	8203.6
17.5°	10460.2	10399.0	10614.3	10996.1	11020.6	10435.7	9412.6	8580.5
20°	10154.2	9674.5	9799.4	10335.3	10961.9	11113.6	10340.2	9356.3
22.5°	10137.1	9388.2	9412.6	9990.2	11130.7	12038.7	11497.8	10376.9
25°	10401.4	9356.3	9378.4	9953.5	11429.3	12971.1	12836.6	11529.6
27.5°	10851.7	9493.4	9478.7	10115.0	11828.2	13749.4	14187.6	12939.3
30°	11338.7	9691.7	9654.9	10374.5	12219.8	14229.1	15146.8	14001.5
32.5°	11945.7	10044.1	9916.8	10753.9	12606.5	14689.3	15966.7	14995.1
35°	12523.3	10560.5	10376.9	11297.1	13020.1	15200.7	16884.5	16094.0
37.5°	13113.1	11331.4	11228.6	12080.2	13605.0	15756.3	17934.5	17339.7
40°	13869.4	12427.8	12378.8	13218.3	14385.7	16363.2	19111.6	18636.8
42.5°	14684.3	13592.7	13551.2	14525.3	15354.9	16972.7	20120.0	19750.4
45°	15513.9	15004.9	15014.7	15920.2	16375.4	17547.7	20912.9	20641.3
47.5°	16492.9	16549.2	16899.2	17366.6	17369.1	18188.9	21615.3	21470.9
50°	17736.2	18414.1	19060.3	19133.7	18372.5	19035.8	22474.3	22420.4
52.5°	19143.5	20565.4	21316.7	21084.2	19351.5	20085.6	23744.5	23742.0
55°	20815.0	22814.5	23521.8	23125.4	20523.8	21453.8	25403.9	25296.1
57.5°	22547.8	24978.0	25548.2	25031.9	21989.7	23047.0	27068.1	26497.8
60°	24420.0	26840.4	27420.5	26644.6	23634.4	24635.3	28169.4	26835.6
62.5°	25646.1	27929.5	28345.5	27601.6	25107.7	26253.2	28524.4	26431.8
65°	25709.8	27205.1	27315.3	27051.0	25734.3	27657.9	28010.4	25234.9
67.5°	23962.3	24050.4	24194.8	24478.8	24395.5	27031.4	26028.0	22440.1
70°	20225.2	19050.5	19525.2	19799.3	20416.0	24043.1	22364.2	18250.1
72.5°	15465.0	13749.4	14287.9	14194.9	15477.2	19721.0	17109.7	14057.8
75°	11130.7	9376.0	9417.5	9422.4	11121.0	15741.5	11666.7	9982.9
77.5°	7564.9	6634.9	6771.9	6686.2	7442.5	12332.4	8399.5	7195.3
80°	5173.8	5149.3	5178.7	4978.0	4963.3	7971.1	6218.8	5739.2
82.5°	3837.5	3546.2	3504.6	3291.8	3803.2	6093.9	4721.0	4123.9
85°	3027.5	1962.9	1705.9	2058.2	3294.1	5606.9	2878.1	2114.5
87.5°	1282.3	771.0	467.4	925.1	1830.6	4109.1	797.8	411.2
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)