

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: P270374

Luminaire Tested: **NAV-AF-02-D-UNV-SLR-7027-600**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P270374
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-02-D-UNV-SLR-7027-600
Description: NAVION ROADWAY AND AREA LUMINAIRE
(2) 70 CRI, 2700K, 615mA 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: 6157.8 lumens
Efficiency: N/A
Efficacy: 93.3 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type IV - Short - Non-Cutoff
BUG Rating: B1 - U0 - G2

Input Watts (W): 66
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

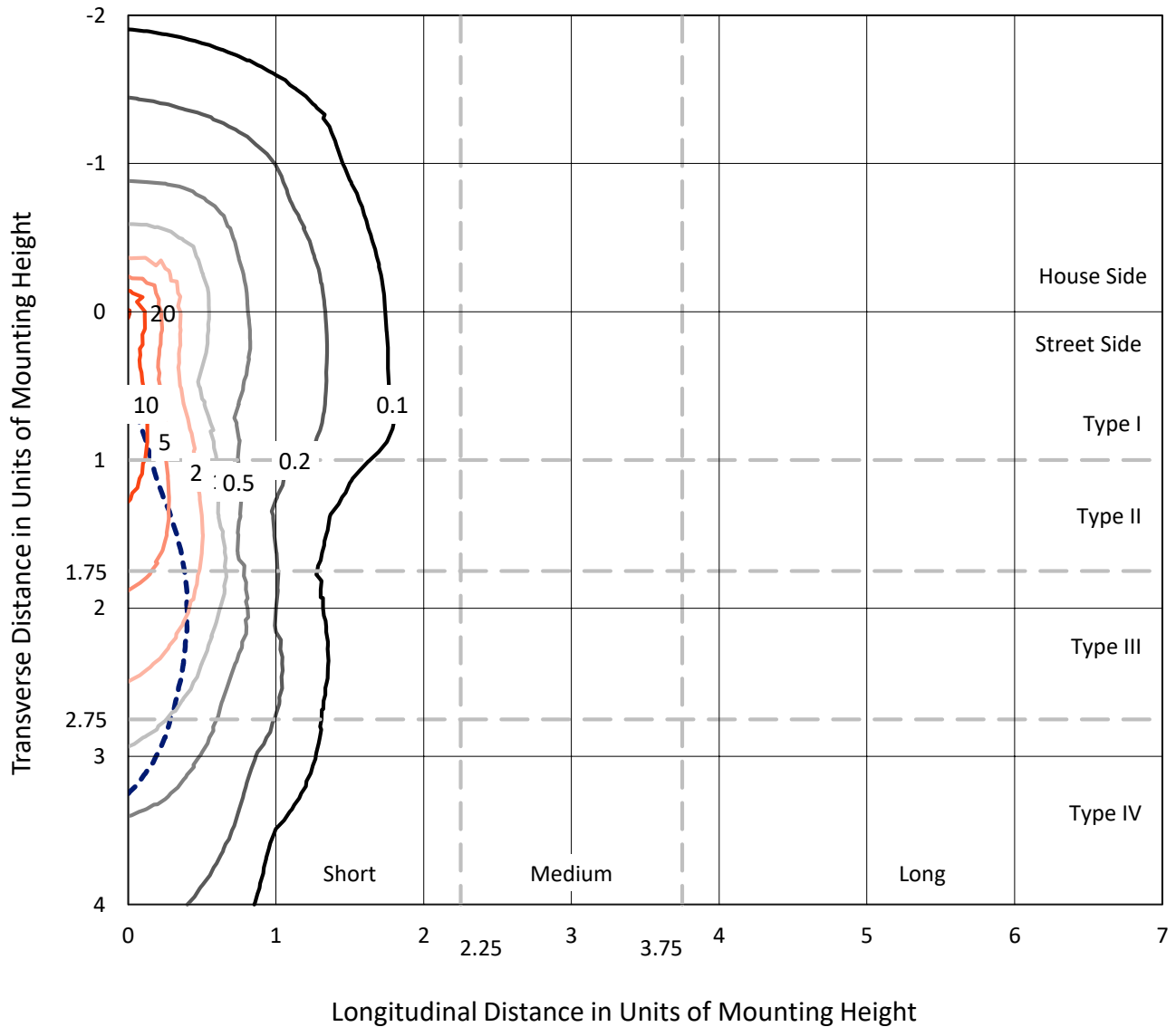


REPORT NUMBER: P270374

CATALOG NUMBER: NAV-AF-02-D-UNV-SLR-7027-600

Iso-Footcandle Lines of Horizontal Illumination

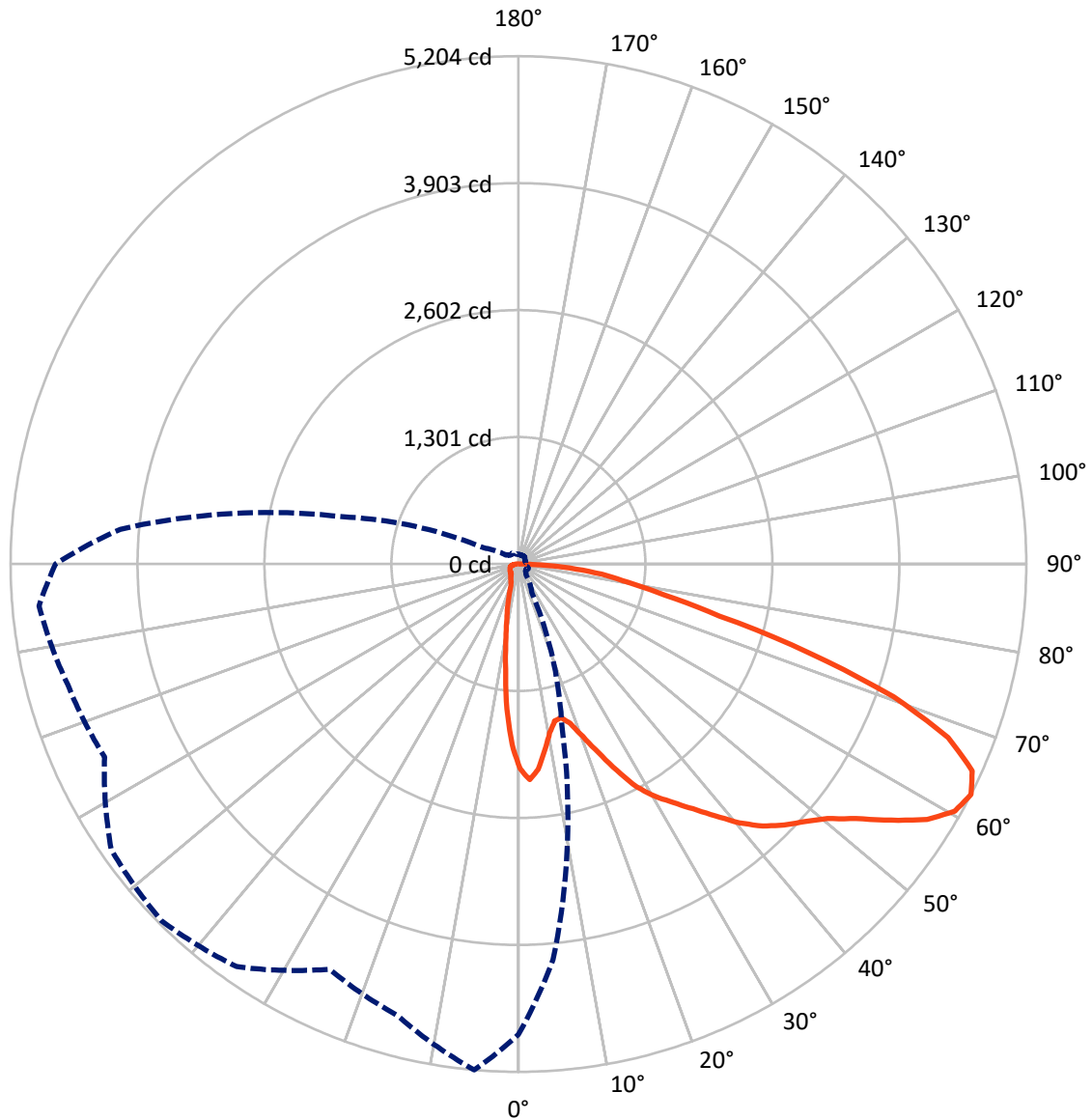
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 21 fc
 Type IV - Short - Non-Cutoff

REPORT NUMBER: P270374
CATALOG NUMBER: NAV-AF-02-D-UNV-SLR-7027-600

Luminous Intensity Polar Plot



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

REPORT NUMBER: P270374

CATALOG NUMBER: NAV-AF-02-D-UNV-SLR-7027-600

FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1090.9	0.0	1090.9
	% Fixture	17.7	0.0	17.7
Street Side	Lumens	5066.9	0.0	5066.9
	% Fixture	82.3	0.0	82.3
Total	Lumens	6157.8	0.0	6157.8
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	152.7	2.5
10°-20°	278.9	4.5
20°-30°	401.1	6.5
30°-40°	614.3	10.0
40°-50°	898.1	14.6
50°-60°	1306.7	21.2
60°-70°	1514.0	24.6
70°-80°	789.2	12.8
80°-90°	202.9	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°	6157.8	100.0
0°-180°	6157.8	100.0



REPORT NUMBER: P270374

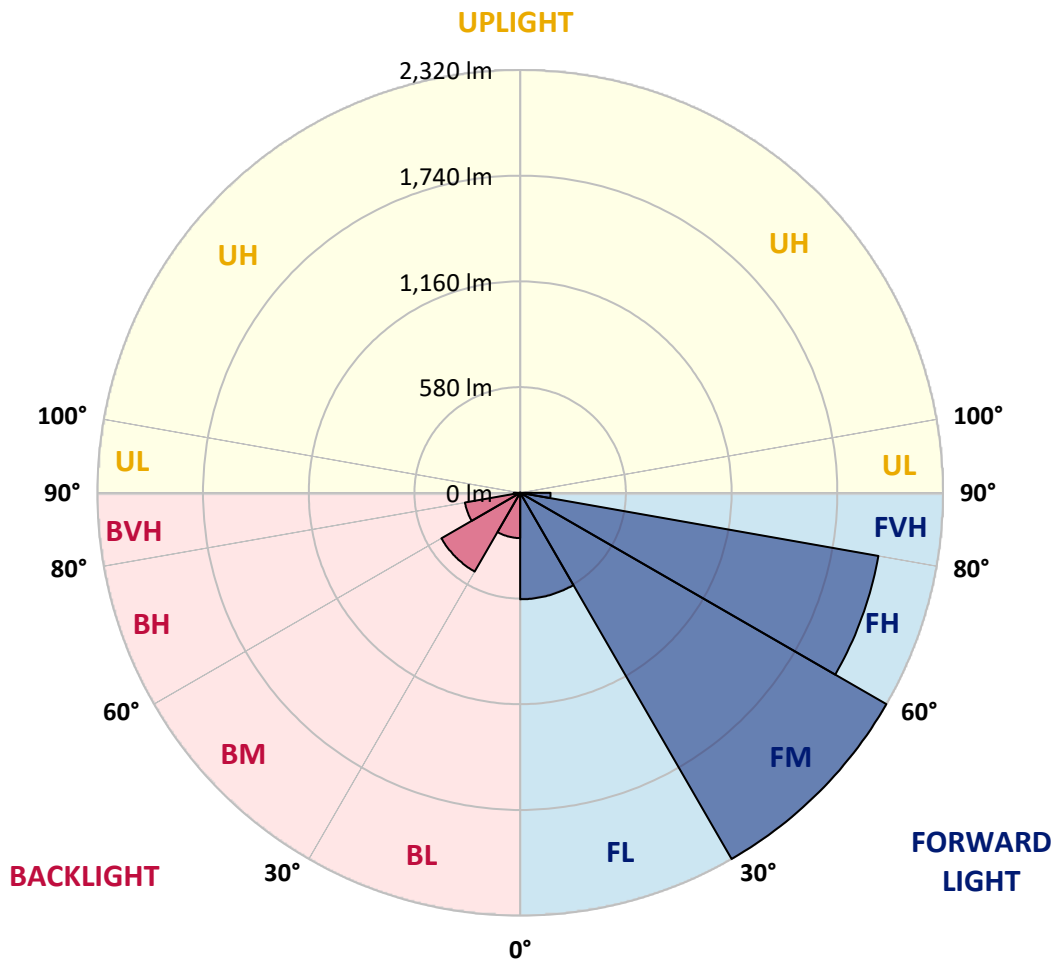
CATALOG NUMBER: NAV-AF-02-D-UNV-SLR-7027-600

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	584.4	9.5			
FM	(30°-60°)	2320.0	37.7			
FH	(60°-80°)	1995.7	32.4			G2/5000
FVH	(80°-90°)	166.9	2.7			G2/225
BL	(0°-30°)	248.2	4.0	B1/500		
BM	(30°-60°)	499.1	8.1	B1/1000		
BH	(60°-80°)	307.6	5.0	B1/500		G1/500
BVH	(80°-90°)	36.0	0.6			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B1-U0-G2

Type IV Short





REPORT NUMBER: P270374

CATALOG NUMBER: NAV-AF-02-D-UNV-SLR-7027-600

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	2099.2	2099.2	2099.2	2099.2	2099.2	2099.2	2099.2	2099.2	2099.2	2099.2	2099.2
2.5°	2167.3	2136.8	2066.7	2005.0	1928.3	1870.7	1800.7	1763.6	1736.3	1718.0	1703.2
5°	2024.3	1951.1	1817.1	1699.8	1572.9	1481.5	1374.2	1315.7	1279.5	1260.0	1251.0
7.5°	1812.2	1715.4	1542.1	1384.5	1226.0	1111.7	1030.4	943.8	897.9	867.9	858.2
10°	1626.9	1517.5	1310.8	1133.7	1011.2	930.0	860.3	780.8	722.0	670.7	651.5
12.5°	1519.4	1392.2	1156.4	996.1	893.5	806.3	732.7	646.9	584.8	531.3	510.7
15°	1496.5	1354.6	1091.6	908.5	782.7	677.7	589.4	496.0	435.3	391.1	376.7
17.5°	1565.3	1390.3	1064.4	828.6	676.9	548.8	439.8	339.7	289.3	265.2	259.4
20°	1706.9	1468.9	1051.5	756.8	574.1	422.4	304.0	230.9	205.8	198.6	198.3
22.5°	1893.1	1596.6	1065.7	697.9	477.7	311.6	222.8	189.7	179.5	175.4	175.4
25°	2103.3	1769.4	1103.7	652.8	392.9	242.5	192.0	174.1	165.6	161.7	162.1
27.5°	2360.4	1979.7	1155.5	611.2	332.2	212.4	179.5	164.3	155.9	151.9	152.3
30°	2554.3	2160.6	1200.1	573.3	300.9	200.4	172.7	158.6	149.1	143.3	142.9
32.5°	2735.6	2320.0	1236.2	546.0	283.1	179.0	156.2	145.5	137.5	130.9	129.4
35°	2936.0	2469.9	1253.2	545.1	271.5	161.7	142.9	130.0	121.9	114.4	112.9
37.5°	3163.3	2653.5	1267.6	550.5	265.2	150.5	136.6	124.1	117.4	109.9	108.1
40°	3399.9	2832.8	1278.6	555.0	264.3	142.9	131.7	120.6	113.8	105.8	104.1
42.5°	3603.0	2991.9	1293.9	553.1	258.1	141.6	128.5	117.4	111.2	103.1	100.9
45°	3765.5	3118.1	1317.5	552.7	248.7	144.6	127.6	116.5	109.0	100.5	98.6
47.5°	3916.9	3260.6	1367.6	550.9	238.4	143.8	132.6	115.6	108.1	99.5	98.3
50°	4090.2	3452.1	1452.7	537.5	224.1	137.5	141.6	114.8	105.8	98.3	96.8
52.5°	4331.3	3732.5	1579.2	513.4	204.5	130.9	142.9	114.4	102.2	95.5	93.8
55°	4614.8	4033.0	1715.4	478.6	178.7	119.3	135.7	112.5	98.6	91.5	88.8
57.5°	4834.0	4254.9	1810.4	428.6	153.2	112.5	121.0	108.4	94.2	87.0	84.8
60°	4895.7	4264.8	1827.4	368.8	140.1	108.1	104.1	118.2	90.5	83.1	80.8
62.5°	4821.9	4069.6	1716.8	326.9	135.7	103.6	94.6	112.9	87.0	79.5	77.3
65°	4603.6	3740.2	1468.9	320.5	140.1	99.5	89.7	90.2	83.5	75.8	73.8
67.5°	4093.8	3255.3	1157.2	324.6	145.5	95.5	86.1	82.1	79.5	72.8	70.1
70°	3329.4	2620.8	911.7	331.7	150.5	90.2	81.7	76.7	74.6	67.5	66.0
72.5°	2564.5	2097.5	719.3	326.9	155.3	84.8	75.5	71.4	68.8	62.1	60.7
75°	1821.1	1666.6	528.7	280.5	142.4	77.3	68.4	64.8	62.5	55.3	54.9
77.5°	1312.7	1248.4	367.9	210.7	112.5	67.8	60.2	57.1	55.9	47.8	47.8
80°	1047.0	950.0	220.2	137.5	82.1	56.2	50.5	49.0	47.8	39.7	40.2
82.5°	752.3	658.9	140.7	85.7	60.2	42.8	39.3	38.8	36.7	29.5	29.5
85°	385.7	336.7	90.2	57.6	42.4	27.7	26.0	25.1	23.6	18.3	18.3
87.5°	75.0	103.1	49.9	28.1	20.5	9.8	9.8	8.4	9.8	6.6	7.1
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: P270374

CATALOG NUMBER: NAV-AF-02-D-UNV-SLR-7027-600

CANDELA DISTRIBUTION (continued):

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°	185°
0°	2099.2	2099.2	2099.2	2099.2	2099.2	2099.2	2099.2	2099.2	2099.2	2099.2	2099.2
2.5°	1731.5	1722.5	1716.2	1713.1	1758.3	1776.9	1798.3	1829.2	1850.1	1841.3	1869.8
5°	1293.0	1299.3	1313.5	1335.9	1398.8	1428.8	1447.9	1473.4	1491.6	1473.4	1503.8
7.5°	884.0	893.5	923.7	969.7	1045.6	1079.1	1085.8	1086.3	1082.3	1052.4	1072.8
10°	650.9	632.1	639.0	671.9	739.8	769.7	772.8	764.7	763.5	751.4	774.6
12.5°	504.5	478.6	463.4	468.7	519.7	544.3	548.2	552.7	571.1	576.8	605.4
15°	376.4	362.9	351.9	346.9	380.4	399.6	401.8	412.5	431.7	437.0	461.6
17.5°	264.8	268.4	274.2	276.4	300.5	313.0	309.3	309.3	312.5	311.3	325.0
20°	202.3	209.3	220.5	231.3	253.1	260.2	251.3	240.1	233.1	229.4	232.7
22.5°	178.7	183.6	190.6	204.5	222.8	226.4	214.8	205.8	199.2	195.6	196.0
25°	165.6	170.6	176.3	187.6	203.1	205.0	194.3	188.5	183.1	179.5	178.7
27.5°	154.5	157.7	161.2	168.3	184.4	185.3	178.1	174.6	170.9	168.3	167.4
30°	144.2	145.5	147.0	154.0	166.0	167.4	163.9	162.1	160.7	158.9	158.9
32.5°	130.9	132.6	134.8	141.0	152.7	154.5	152.3	150.9	148.7	147.9	146.5
35°	114.8	119.3	124.1	131.7	144.2	145.0	142.4	138.3	133.0	131.7	130.9
37.5°	108.1	109.0	115.3	124.1	137.1	138.0	134.3	127.6	123.6	124.1	125.0
40°	103.6	104.9	108.4	117.4	130.3	131.7	128.5	123.6	119.7	120.2	121.5
42.5°	100.0	101.8	104.1	109.9	122.8	125.5	124.5	120.2	116.2	117.0	118.8
45°	98.3	99.5	99.5	103.6	116.2	120.2	120.6	117.0	113.8	114.8	117.0
47.5°	97.3	97.3	95.9	99.2	111.6	115.6	116.5	114.8	112.9	113.8	116.2
50°	95.9	94.2	92.9	95.5	108.1	111.6	112.5	111.2	112.1	113.8	115.3
52.5°	91.9	90.2	90.2	91.9	104.5	108.1	108.4	107.5	109.5	111.6	113.8
55°	87.0	87.0	87.6	89.3	102.6	105.5	104.9	104.1	105.8	108.4	110.8
57.5°	82.6	82.1	84.4	86.6	100.5	102.2	101.4	101.4	102.6	104.9	107.2
60°	79.9	77.8	79.5	83.1	98.3	100.0	98.6	98.3	100.5	102.2	104.1
62.5°	77.3	75.0	76.4	79.9	95.1	96.5	95.5	95.5	97.7	99.2	100.9
65°	73.2	72.4	73.2	76.7	92.4	92.9	92.9	93.3	95.1	95.9	97.7
67.5°	69.7	69.7	70.1	73.8	90.2	89.3	89.3	91.5	91.9	92.9	94.6
70°	65.1	66.0	66.0	70.5	88.5	85.2	85.7	87.6	88.5	89.3	89.7
72.5°	60.2	60.7	61.7	67.5	85.7	81.2	81.7	83.1	83.5	84.8	85.2
75°	54.9	55.3	56.8	64.3	83.9	77.3	76.4	77.3	78.2	79.1	78.6
77.5°	48.7	49.5	50.9	62.5	78.2	76.4	69.7	70.5	71.4	71.4	71.0
80°	41.1	42.4	44.6	59.8	66.0	73.8	62.1	62.5	62.9	62.9	62.1
82.5°	30.8	33.4	36.7	49.5	51.8	62.9	53.5	54.4	53.1	52.2	51.8
85°	20.1	22.3	26.8	34.3	38.0	49.5	44.1	44.6	42.0	41.5	41.5
87.5°	8.1	8.4	12.0	17.3	22.7	30.8	31.7	32.6	30.4	30.4	31.3
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: P270374

CATALOG NUMBER: NAV-AF-02-D-UNV-SLR-7027-600

CANDELA DISTRIBUTION (continued):

	195°	205°	215°	225°	235°	245°	255°	265°	270°	275°	285°
0°	2099.2	2099.2	2099.2	2099.2	2099.2	2099.2	2099.2	2099.2	2099.2	2099.2	2099.2
2.5°	1913.1	1957.8	2009.1	2061.4	2104.2	2159.5	2213.2	2270.3	2299.3	2316.3	2364.1
5°	1551.1	1612.2	1685.0	1766.6	1834.6	1950.7	2075.7	2215.0	2282.0	2348.0	2473.0
7.5°	1109.4	1169.4	1254.2	1359.9	1456.4	1609.6	1774.3	1962.6	2055.6	2162.7	2367.7
10°	823.7	887.2	963.9	1053.7	1148.8	1308.2	1493.1	1704.7	1806.9	1927.9	2161.0
12.5°	667.9	742.0	821.5	901.9	983.6	1090.7	1284.4	1519.8	1629.6	1751.5	1985.1
15°	521.0	600.4	686.2	773.7	854.9	974.7	1172.5	1450.7	1576.0	1693.9	1885.1
17.5°	368.8	443.9	540.2	646.5	764.4	905.9	1148.4	1480.9	1633.2	1756.5	1884.6
20°	251.3	303.2	399.6	525.5	671.0	850.5	1157.2	1587.7	1777.8	1913.1	1961.8
22.5°	201.0	225.5	290.6	418.8	590.6	810.4	1193.8	1734.1	1985.4	2150.3	2102.5
25°	182.6	196.5	230.3	330.8	519.2	783.5	1265.4	1927.5	2218.1	2385.1	2271.6
27.5°	171.4	183.6	205.4	271.8	457.6	766.2	1355.9	2155.2	2480.2	2617.2	2448.1
30°	164.3	176.3	196.5	244.2	411.2	740.3	1435.4	2363.3	2689.5	2778.4	2543.1
32.5°	150.5	159.9	176.3	218.7	376.4	709.9	1504.2	2549.4	2887.3	2916.8	2657.5
35°	136.2	146.1	162.6	198.3	355.9	686.2	1540.4	2714.6	3083.3	3055.2	2770.8
37.5°	130.9	138.9	154.0	183.6	344.7	670.7	1554.2	2877.1	3293.6	3208.3	2849.9
40°	127.2	134.3	147.9	173.7	341.5	655.9	1551.1	3031.6	3497.7	3366.8	2911.9
42.5°	124.5	130.9	143.3	166.9	333.1	642.0	1540.9	3165.1	3661.1	3503.5	2971.2
45°	122.3	129.0	141.6	170.6	317.5	626.8	1534.6	3287.0	3786.5	3618.7	3050.7
47.5°	121.5	129.0	142.0	169.7	300.5	609.9	1556.9	3422.3	3895.9	3715.6	3156.6
50°	120.2	128.5	151.9	161.7	277.2	588.8	1632.3	3583.3	4010.8	3824.5	3293.6
52.5°	117.9	128.2	162.1	155.3	247.4	559.9	1754.7	3811.1	4208.9	4036.5	3496.4
55°	115.3	129.0	154.9	145.5	215.7	522.4	1877.0	4123.2	4530.4	4378.6	3787.4
57.5°	112.1	127.6	146.5	136.6	189.4	475.1	1969.9	4379.0	4795.6	4731.4	4145.0
60°	109.9	130.9	131.7	131.2	172.4	430.0	1978.7	4362.4	4871.9	4960.4	4495.1
62.5°	107.2	133.5	120.2	127.2	163.9	388.0	1868.5	4092.4	4743.0	4930.8	4780.4
65°	103.6	116.5	113.8	123.6	163.9	365.7	1611.7	3642.7	4386.2	4652.2	4935.3
67.5°	100.0	105.8	109.5	118.8	167.4	344.7	1295.3	3072.7	3823.5	4202.7	4761.1
70°	95.1	100.0	104.5	114.4	165.6	329.9	1019.2	2462.8	3146.8	3580.7	4279.4
72.5°	90.5	94.2	98.6	107.5	165.6	323.2	818.9	1931.8	2402.4	2768.1	3545.0
75°	83.9	87.0	91.1	100.9	162.6	295.5	614.8	1547.9	1757.8	1986.8	2797.1
77.5°	77.3	79.5	82.6	92.4	146.5	246.9	434.9	1198.8	1302.4	1429.2	2180.5
80°	68.8	70.5	72.8	82.6	121.5	191.6	283.1	937.7	973.8	1034.9	1434.6
82.5°	58.8	61.7	62.1	71.0	97.7	138.9	168.3	642.5	642.0	731.8	1012.2
85°	48.1	49.5	50.5	55.9	72.4	92.4	110.8	351.0	313.0	438.5	879.1
87.5°	36.1	34.9	36.1	37.5	47.8	54.4	59.4	64.8	38.8	79.5	511.2
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: P270374

CATALOG NUMBER: NAV-AF-02-D-UNV-SLR-7027-600

CANDELA DISTRIBUTION (continued):

	295°	305°	315°	325°	335°	345°	355°	360°
0°	2099.2	2099.2	2099.2	2099.2	2099.2	2099.2	2099.2	2099.2
2.5°	2389.5	2415.9	2400.2	2381.4	2334.7	2265.9	2213.2	2167.3
5°	2559.6	2608.3	2586.8	2517.2	2395.8	2257.8	2112.8	2024.3
7.5°	2538.3	2634.6	2626.1	2510.0	2336.0	2132.8	1928.8	1812.2
10°	2366.8	2502.0	2525.2	2406.5	2222.0	1994.9	1758.6	1626.9
12.5°	2180.1	2294.0	2341.3	2296.2	2122.5	1891.7	1651.1	1519.4
15°	2023.9	2081.5	2128.4	2157.4	2049.8	1855.1	1632.3	1496.5
17.5°	1908.2	1897.1	1936.3	2006.1	2010.4	1903.8	1717.1	1565.3
20°	1852.5	1764.9	1787.6	1885.5	1999.7	2027.5	1886.4	1706.9
22.5°	1849.3	1712.7	1717.1	1822.5	2030.6	2196.1	2097.5	1893.1
25°	1897.5	1706.9	1710.9	1815.8	2085.1	2366.3	2341.7	2103.3
27.5°	1979.7	1731.9	1729.1	1845.3	2157.8	2508.2	2588.1	2360.4
30°	2068.4	1768.0	1761.3	1892.5	2229.2	2595.8	2763.2	2554.3
32.5°	2179.3	1832.4	1809.0	1961.8	2299.8	2679.7	2912.8	2735.6
35°	2284.6	1926.5	1893.1	2060.9	2375.3	2773.1	3080.2	2936.0
37.5°	2392.1	2067.2	2048.4	2203.8	2481.9	2874.3	3271.7	3163.3
40°	2530.2	2267.2	2258.2	2411.4	2624.4	2985.1	3486.5	3399.9
42.5°	2678.8	2479.7	2472.1	2649.8	2801.2	3096.3	3670.5	3603.0
45°	2830.2	2737.3	2739.1	2904.3	2987.4	3201.2	3815.1	3765.5
47.5°	3008.9	3019.1	3083.0	3168.2	3168.6	3318.2	3943.3	3916.9
50°	3235.5	3359.3	3477.1	3490.5	3351.7	3472.7	4100.0	4090.2
52.5°	3492.3	3751.7	3888.9	3846.4	3530.2	3664.1	4331.6	4331.3
55°	3797.2	4162.0	4291.1	4218.7	3744.1	3913.7	4634.4	4614.8
57.5°	4113.3	4556.7	4660.8	4566.5	4011.7	4204.4	4938.1	4834.0
60°	4455.0	4896.5	5002.3	4860.8	4311.7	4494.2	5138.9	4895.7
62.5°	4678.6	5095.1	5171.1	5035.3	4580.4	4789.4	5203.6	4821.9
65°	4690.2	4963.0	4983.1	4934.8	4694.7	5045.6	5109.9	4603.6
67.5°	4371.4	4387.5	4413.8	4465.7	4450.5	4931.3	4748.3	4093.8
70°	3689.7	3475.4	3562.0	3611.9	3724.6	4386.2	4079.9	3329.4
72.5°	2821.2	2508.2	2606.5	2589.5	2823.6	3597.7	3121.3	2564.5
75°	2030.6	1710.5	1718.0	1718.9	2028.8	2871.7	2128.4	1821.1
77.5°	1380.1	1210.3	1235.3	1219.8	1357.7	2249.7	1532.2	1312.7
80°	943.8	939.4	944.7	908.1	905.4	1454.1	1134.5	1047.0
82.5°	700.0	646.9	639.4	600.4	693.9	1111.7	861.2	752.3
85°	552.3	358.1	311.3	375.5	601.0	1022.9	525.1	385.7
87.5°	234.0	140.7	85.2	168.8	334.0	749.6	145.5	75.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)