

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: P189781

Luminaire Tested: **NFFLD-S-C15-D-UNV-33-7050**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P189781
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-16-1017-4)
Test Lab: INNOVATION CENTER(G2)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NFFLD-S-C15-D-UNV-33-7050
Description: LOW WATTAGE LED FLOODLIGHT
Light Source: (2) CITIZEN 5000 70
CLU028-1204C4-50AL7K3
Ballast/Driver: OSRAM ELECTRONIC DRIVER
OT50W/UNV/800C/2DIMLT2/P6

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5648.1 lumens
Efficiency: N/A
Efficacy: 97.7 lumens/watt
Luminous Opening: (L: 0 ' x W: 0.46 ' x H: 0.33 '
IES Classification: Type V - Short - Full Cutoff
BUG Rating: B4 - U0 - G1

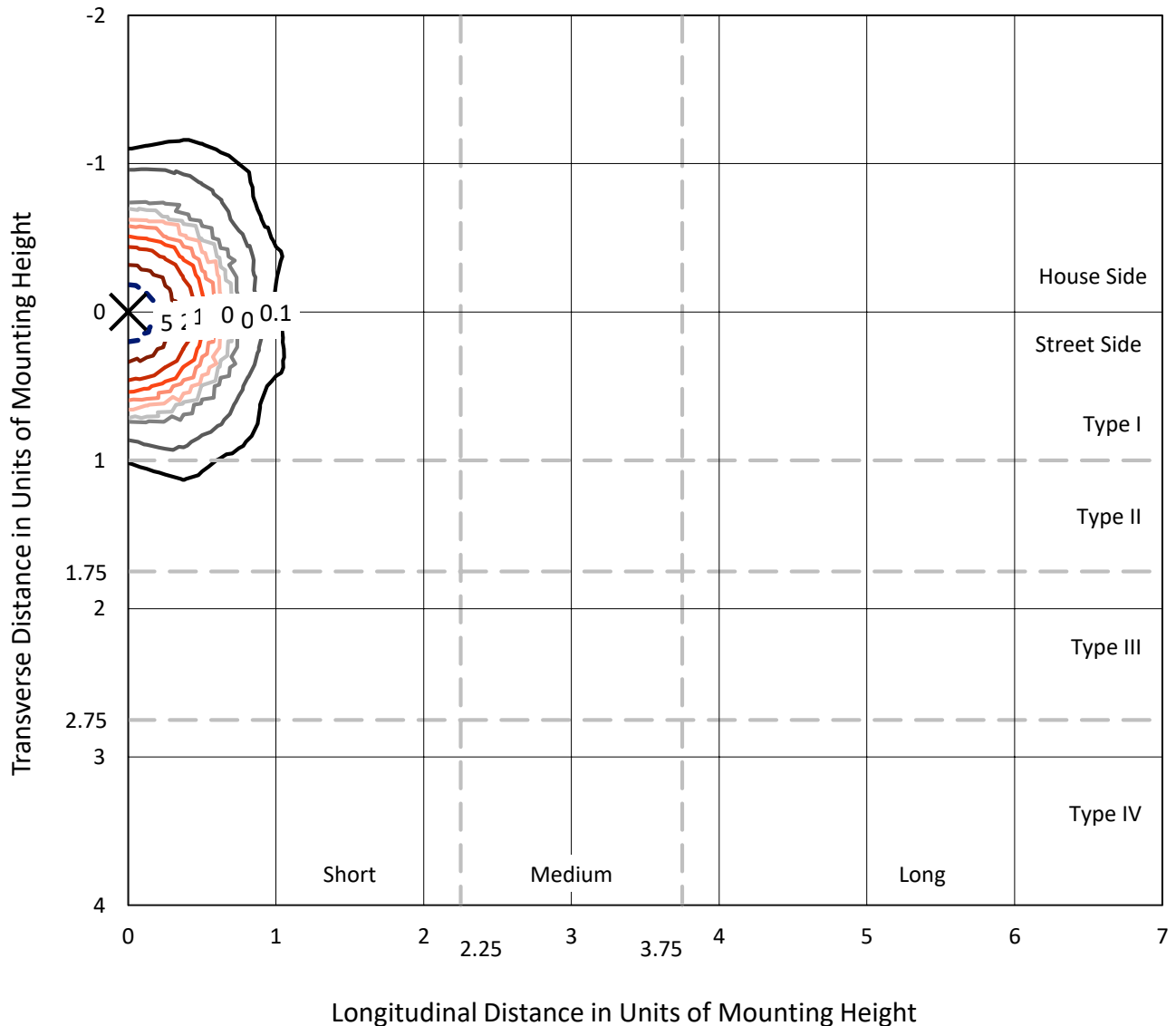
Input Watts (W): 57.8
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



REPORT NUMBER: P189781
 CATALOG NUMBER: NFFLD-S-C15-D-UNV-33-7050

Iso-Footcandle Lines of Horizontal Illumination

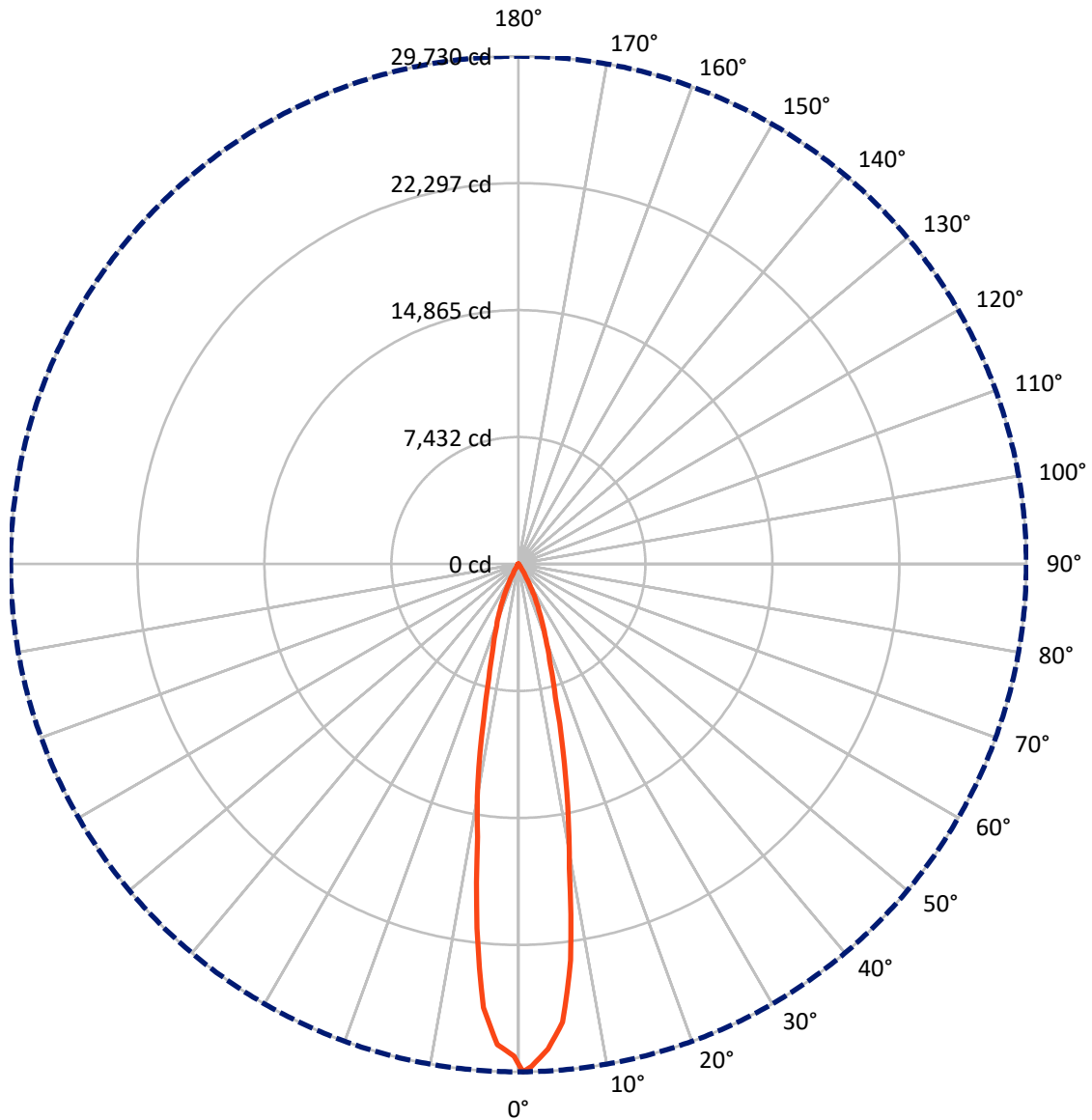
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 297.3 fc
 Type V - Short - Full Cutoff

REPORT NUMBER: P189781
CATALOG NUMBER: NFFLD-S-C15-D-UNV-33-7050

Luminous Intensity Polar Plot



— Vertical Plane Through 0-Deg Lateral - - - Horizontal Cone Through 0-Deg Vertical

REPORT NUMBER: P189781

CATALOG NUMBER: NFFLD-S-C15-D-UNV-33-7050

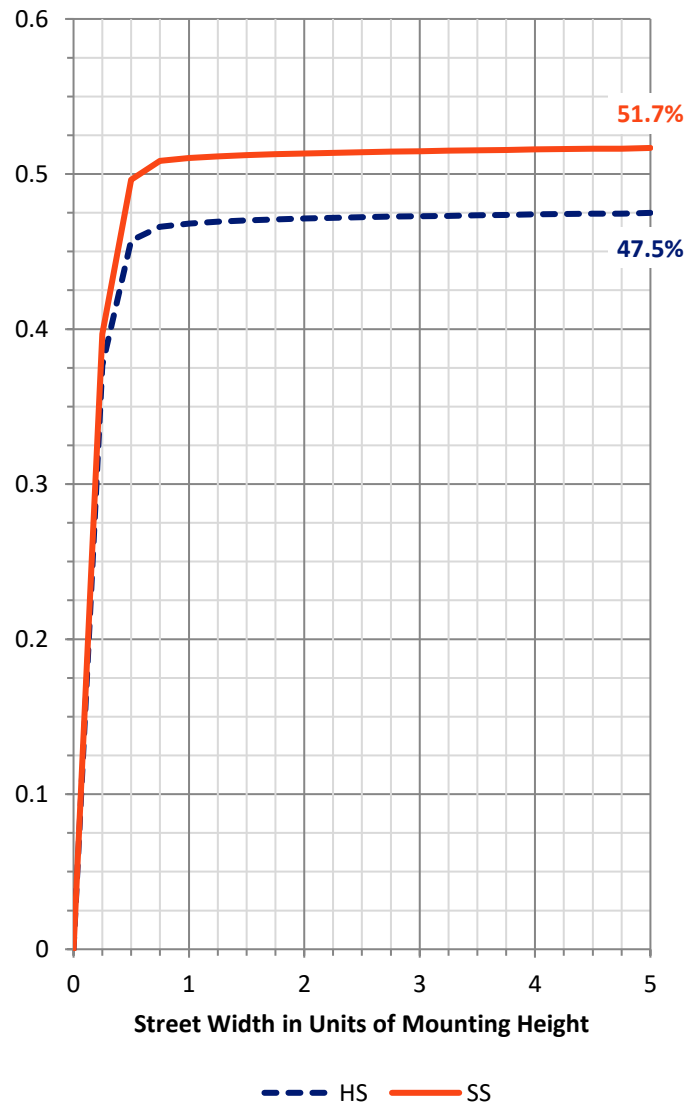
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2731.2	0.0	2731.2
	% Fixture	48.4	0.0	48.4
Street Side	Lumens	2916.9	0.0	2916.9
	% Fixture	51.6	0.0	51.6
Total	Lumens	5648.1	0.0	5648.1
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	2114.9	37.4
10°-20°	2237.4	39.6
20°-30°	1024.4	18.1
30°-40°	201.9	3.6
40°-50°	34.4	0.6
50°-60°	20.6	0.4
60°-70°	18.7	0.3
70°-80°	35.2	0.6
80°-90°	24.9	0.4
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°	5648.1	100.0
0°-180°	5648.1	100.0



REPORT NUMBER: P189781

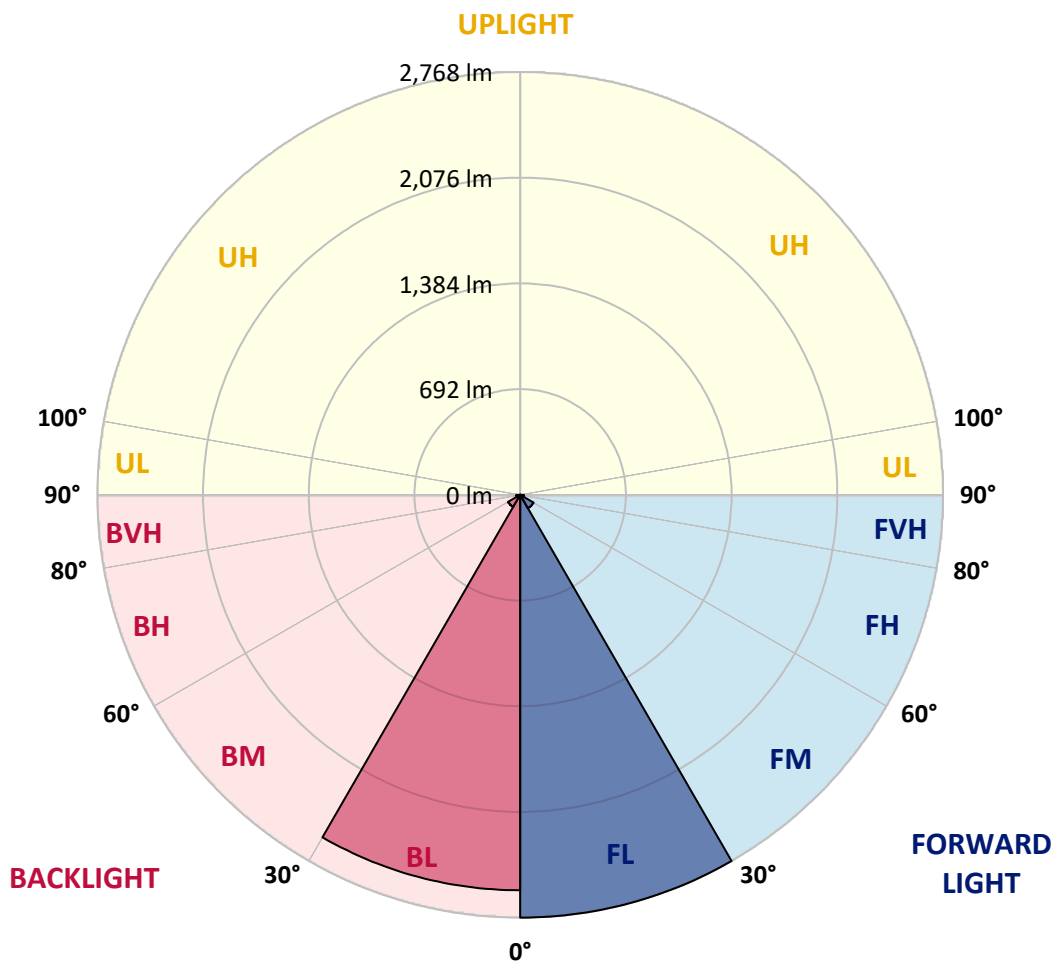
CATALOG NUMBER: NFFLD-S-C15-D-UNV-33-7050

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2767.9	49.0			
FM	(30°-60°)	101.3	1.8			
FH	(60°-80°)	23.5	0.4			G0/660
FVH	(80°-90°)	23.7	0.4			G1/100
BL	(0°-30°)	2588.7	45.8	B4/5000		
BM	(30°-60°)	92.3	1.6	B0/220		
BH	(60°-80°)	25.1	0.4	B0/110		G0/660
BVH	(80°-90°)	24.8	0.4			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B4-U0-G1

Type V Short





REPORT NUMBER: P189781

CATALOG NUMBER: NFFLD-S-C15-D-UNV-33-7050

CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	100°
0°	29729.5	29729.5	29729.5	29729.5	29729.5	29729.5	29729.5	29729.5	29729.5	29729.5	29729.5
1°	29417.8	29297.0	29189.9	29100.4	29031.5	28985.6	28964.0	28967.3	28994.8	29045.3	29003.8
3°	28439.3	28399.8	28357.7	28228.1	28146.6	28119.1	28146.4	28224.5	28236.7	28260.7	28208.9
5°	26947.1	26778.2	26553.7	26485.7	26474.0	26398.7	26296.7	26274.1	26411.7	26415.3	26274.7
7°	23404.5	23089.1	22873.2	22785.5	22780.0	22676.4	22431.6	22314.9	22365.8	22363.1	22108.2
9°	18078.5	17859.7	18033.8	18036.0	17852.5	17707.0	17699.2	17512.9	17184.2	17103.0	16970.4
11°	14470.9	14295.0	14218.2	14181.9	14147.9	14083.2	13982.4	13932.8	13942.8	13944.1	13717.5
13°	11153.6	10982.0	10971.7	10854.8	10820.4	10797.8	10745.0	10686.0	10494.9	10375.1	10218.0
15°	8124.6	8046.2	8186.5	7971.2	8055.9	8021.7	7831.3	7847.9	7602.1	7446.6	7395.5
17°	6238.6	6173.1	6191.1	6110.5	6118.0	6036.7	6005.3	5951.6	5860.8	5747.3	5721.8
19.5°	4672.4	4592.6	4588.2	4533.7	4538.4	4544.9	4501.0	4486.6	4394.9	4403.4	4299.1
22.5°	3316.2	3281.6	3263.5	3260.7	3257.9	3253.3	3200.5	3179.7	3145.1	3095.0	3064.6
25.5°	2210.8	2170.5	2169.7	2154.9	2176.3	2160.4	2105.8	2100.3	2071.0	2032.2	2000.2
29°	1057.7	1040.0	1063.5	1026.3	1035.1	1020.1	1024.9	1017.9	942.6	898.3	900.3
33°	211.1	243.4	297.8	262.5	277.0	264.8	290.5	295.4	238.4	172.6	220.7
37.5°	49.7	69.1	82.2	77.6	72.4	66.2	71.5	71.3	76.2	53.8	69.2
42.5°	40.6	49.0	63.4	58.4	61.9	54.5	51.7	49.5	51.1	38.6	35.7
47.5°	20.3	28.8	46.3	41.2	45.6	39.6	22.8	36.5	25.5	18.3	20.4
55°	12.2	22.7	26.8	16.4	19.7	20.1	4.3	8.5	8.4	4.1	4.4
65°	20.3	28.1	20.8	17.6	13.2	10.8	12.2	15.7	13.3	6.1	18.0
75°	8.1	27.4	15.3	17.2	19.1	25.7	28.9	29.9	37.5	28.4	36.4
85°	0.0	13.5	42.3	62.6	78.0	78.2	81.2	89.1	92.3	92.4	86.2
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: P189781

CATALOG NUMBER: NFFLD-S-C15-D-UNV-33-7050

CANDELA DISTRIBUTION (continued):

	110°	120°	130°	140°	150°	160°	170°	180°	190°	200°	210°
0°	29729.5	29729.5	29729.5	29729.5	29729.5	29729.5	29729.5	29729.5	29729.5	29729.5	29729.5
1°	28974.4	28949.5	28923.2	28893.1	28859.9	28828.2	28805.4	28800.7	28805.4	28828.2	28859.9
3°	28175.6	28043.9	27972.3	27965.7	28024.2	28143.2	28142.5	28164.2	28142.5	28143.2	28024.2
5°	26000.0	25913.5	25907.4	25813.3	25720.7	25793.3	26058.8	26055.9	26058.8	25793.3	25720.7
7°	21823.9	21715.8	21701.1	21582.9	21340.7	21251.1	21438.9	21460.7	21438.9	21251.1	21340.7
9°	17103.9	16956.6	16746.6	16659.2	16665.3	16611.6	16300.4	16154.9	16300.4	16611.6	16665.3
11°	13489.5	13409.9	13324.9	13190.7	13097.9	12979.9	13001.6	13048.8	13001.6	12979.9	13097.9
13°	10113.9	9998.6	9912.1	9813.9	9692.5	9605.8	9556.0	9436.1	9556.0	9605.8	9692.5
15°	7380.5	7208.4	7213.0	7172.4	6976.2	7072.1	6985.3	6842.6	6985.3	7072.1	6976.2
17°	5650.5	5593.1	5536.5	5498.1	5471.5	5461.9	5397.6	5388.0	5397.6	5461.9	5471.5
19.5°	4262.9	4182.0	4162.9	4118.2	4099.0	4100.3	4024.3	4019.7	4024.3	4100.3	4099.0
22.5°	3024.9	3000.5	3000.6	2942.9	2922.4	2903.6	2883.3	2872.7	2883.3	2903.6	2922.4
25.5°	1981.5	1941.9	1924.5	1898.9	1856.5	1861.9	1830.2	1804.8	1830.2	1861.9	1856.5
29°	934.1	887.2	859.7	852.2	817.5	845.9	805.9	768.4	805.9	845.9	817.5
33°	260.8	244.3	221.9	220.3	182.3	231.7	181.3	140.1	181.3	231.7	182.3
37.5°	65.1	75.4	64.0	72.8	77.8	83.7	74.8	66.0	74.8	83.7	77.8
42.5°	47.0	54.2	49.7	60.0	60.3	66.2	61.3	61.9	61.3	66.2	60.3
47.5°	34.4	29.0	36.2	47.7	51.4	46.7	40.5	32.5	40.5	46.7	51.4
55°	19.4	10.7	15.8	35.0	29.2	32.9	16.9	0.0	16.9	32.9	29.2
65°	18.5	12.3	26.2	15.8	16.6	28.4	17.3	0.0	17.3	28.4	16.6
75°	35.0	32.4	36.1	22.8	16.0	14.4	25.2	0.0	25.2	14.4	16.0
85°	92.8	82.6	84.7	85.7	67.5	48.4	13.5	0.0	13.5	48.4	67.5
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: P189781

CATALOG NUMBER: NFFLD-S-C15-D-UNV-33-7050

CANDELA DISTRIBUTION (continued):

	220°	230°	240°	250°	260°	270°	280°	290°	300°	310°	320°
0°	29729.5	29729.5	29729.5	29729.5	29729.5	29729.5	29729.5	29729.5	29729.5	29729.5	29729.5
1°	28893.1	28923.2	28949.5	28974.4	29003.8	29045.3	28994.8	28967.3	28964.0	28985.6	29031.5
3°	27965.7	27972.3	28043.9	28175.6	28208.9	28260.7	28236.7	28224.5	28146.4	28119.1	28146.6
5°	25813.3	25907.4	25913.5	26000.0	26274.7	26415.3	26411.7	26274.1	26296.7	26398.7	26474.0
7°	21582.9	21701.1	21715.8	21823.9	22108.2	22363.1	22365.8	22314.9	22431.6	22676.4	22780.0
9°	16659.2	16746.6	16956.6	17103.9	16970.4	17103.0	17184.2	17512.9	17699.2	17707.0	17852.5
11°	13190.7	13324.9	13409.9	13489.5	13717.5	13944.1	13942.8	13932.8	13982.4	14083.2	14147.9
13°	9813.9	9912.1	9998.6	10113.9	10218.0	10375.1	10494.9	10686.0	10745.0	10797.8	10820.4
15°	7172.4	7213.0	7208.4	7380.5	7395.5	7446.6	7602.1	7847.9	7831.3	8021.7	8055.9
17°	5498.1	5536.5	5593.1	5650.5	5721.8	5747.3	5860.8	5951.6	6005.3	6036.7	6118.0
19.5°	4118.2	4162.9	4182.0	4262.9	4299.1	4403.4	4394.9	4486.6	4501.0	4544.9	4538.4
22.5°	2942.9	3000.6	3000.5	3024.9	3064.6	3095.0	3145.1	3179.7	3200.5	3253.3	3257.9
25.5°	1898.9	1924.5	1941.9	1981.5	2000.2	2032.2	2071.0	2100.3	2105.8	2160.4	2176.3
29°	852.2	859.7	887.2	934.1	900.3	898.3	942.6	1017.9	1024.9	1020.1	1035.1
33°	220.3	221.9	244.3	260.8	220.7	172.6	238.4	295.4	290.5	264.8	277.0
37.5°	72.8	64.0	75.4	65.1	69.2	53.8	76.2	71.3	71.5	66.2	72.4
42.5°	60.0	49.7	54.2	47.0	35.7	38.6	51.1	49.5	51.7	54.5	61.9
47.5°	47.7	36.2	29.0	34.4	20.4	18.3	25.5	36.5	22.8	39.6	45.6
55°	35.0	15.8	10.7	19.4	4.4	4.1	8.4	8.5	4.3	20.1	19.7
65°	15.8	26.2	12.3	18.5	18.0	6.1	13.3	15.7	12.2	10.8	13.2
75°	22.8	36.1	32.4	35.0	36.4	28.4	37.5	29.9	28.9	25.7	19.1
85°	85.7	84.7	82.6	92.8	86.2	92.4	92.3	89.1	81.2	78.2	78.0
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: P189781

CATALOG NUMBER: NFFLD-S-C15-D-UNV-33-7050

CANDELA DISTRIBUTION (continued):

	330°	340°	350°	360°
0°	29729.5	29729.5	29729.5	29729.5
1°	29100.4	29189.9	29297.0	29417.8
3°	28228.1	28357.7	28399.8	28439.3
5°	26485.7	26553.7	26778.2	26947.1
7°	22785.5	22873.2	23089.1	23404.5
9°	18036.0	18033.8	17859.7	18078.5
11°	14181.9	14218.2	14295.0	14470.9
13°	10854.8	10971.7	10982.0	11153.6
15°	7971.2	8186.5	8046.2	8124.6
17°	6110.5	6191.1	6173.1	6238.6
19.5°	4533.7	4588.2	4592.6	4672.4
22.5°	3260.7	3263.5	3281.6	3316.2
25.5°	2154.9	2169.7	2170.5	2210.8
29°	1026.3	1063.5	1040.0	1057.7
33°	262.5	297.8	243.4	211.1
37.5°	77.6	82.2	69.1	49.7
42.5°	58.4	63.4	49.0	40.6
47.5°	41.2	46.3	28.8	20.3
55°	16.4	26.8	22.7	12.2
65°	17.6	20.8	28.1	20.3
75°	17.2	15.3	27.4	8.1
85°	62.6	42.3	13.5	0.0
90°	0.0	0.0	0.0	0.0

(END OF REPORT)