

Signify Classified - Internal  
Cooper Lighting Solutions Photometric Lab  
1121 Highway 74 South  
Peachtree City, GA 30269



Scaled data based on original data using  
LM-79-2019 Approved Method: Electrical and Photometric Measurements of Solid-  
State Lighting Products

Test Report Prepared for  
Cooper Lighting Solutions

Brand: CORELITE

Report Number: P621603

Luminaire Tested: VLT-FA-050U-050D-840-UNV-STD-W-4

Issue Date: 9/2/2020

**Test Information**

Test Method: LM-79-2019  
Report Number: P621603  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2203-563-26, G2-2203-563-21)  
Test Lab: INNOVATION CENTER  
Issue Date: 9/2/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: VLT-FA-050U-050D-840-UNV-STD-W-4  
Description: CORELITE VAULT SUSPENDED LED LUMINAIRE  
LIGHT SHAPING LENS - ASYMMETRIC  
DOWNLIGHT 500 LUMENS PER FOOT  
UPLIGHT 500 LUMENS PER FOOT  
Light Source: 4000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

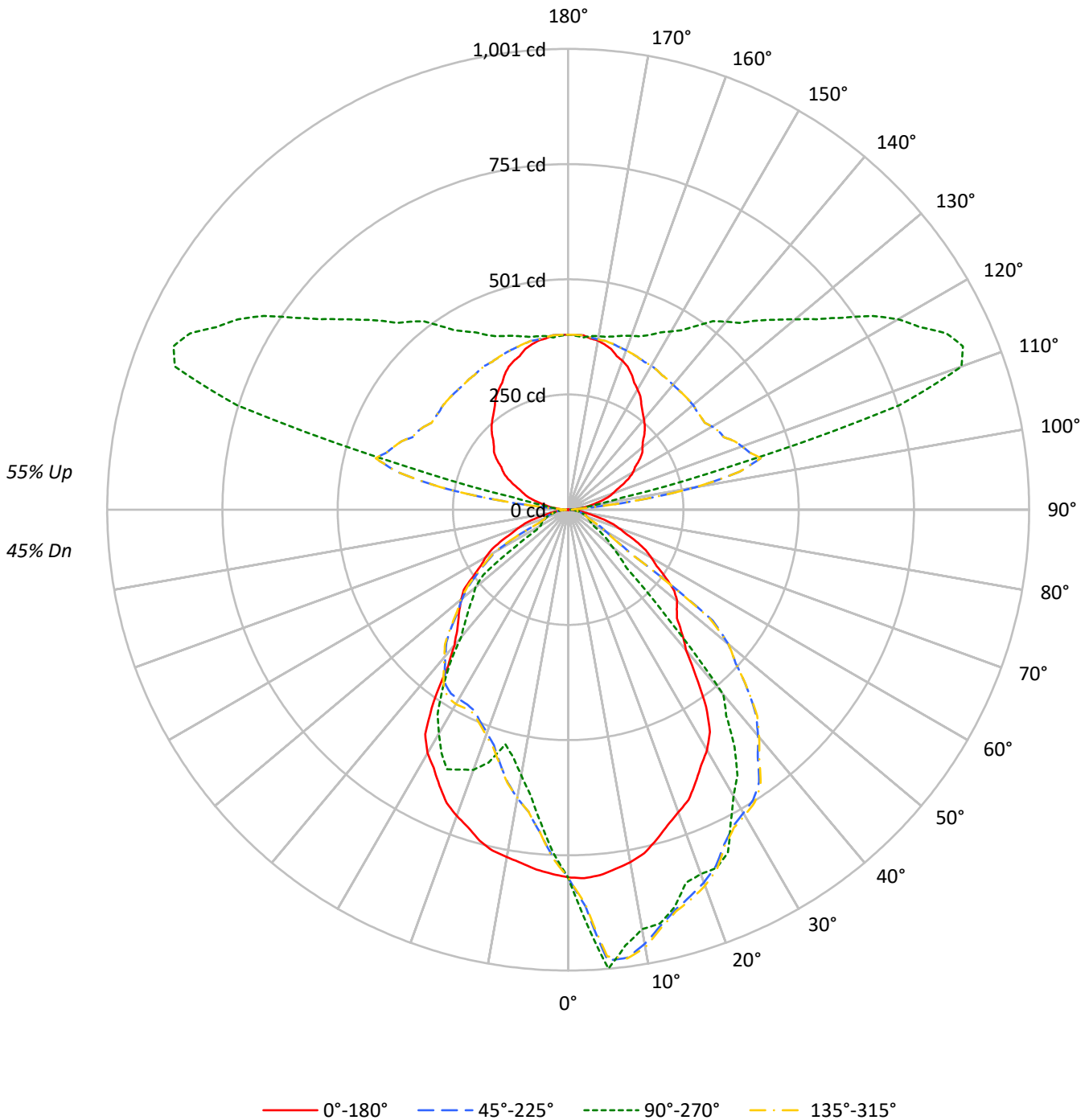
Lumens per Lamp: N/A  
Luminaire Lumens: 3689.7 lumens  
Efficiency: N/A  
Efficacy: 127.2 lumens/watt  
Spacing Criteria (0/90/45): 1.14 / 1.19 / 1.3  
Luminous Opening: Rectangular (W 0.38' x L: 4' x H: 0')  
CIE Type: General Diffuse

Input Watts (W): 29  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): 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: 24 FT



TEST NUMBER: P621603  
CATALOG NUMBER: VLT-FA-050U-050D-840-UNV-STD-W-4

### Luminous Intensity Polar Plot





TEST NUMBER: P621603

CATALOG NUMBER: VLT-FA-050U-050D-840-UNV-STD-W-4

**COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:**

RF	20				20				20			20			20			20
RC	80				70				50			30			10			0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
RCR																		
0	106	106	106	106	97	97	97	97	80	80	80	65	65	65	51	51	51	45
1	97	93	90	87	89	86	83	80	72	69	67	58	57	56	46	46	45	39
2	89	82	77	72	82	76	71	67	64	60	57	52	50	48	42	40	39	34
3	82	73	66	61	75	67	61	57	57	52	49	47	44	41	38	36	34	30
4	75	65	58	52	69	60	54	49	51	46	42	42	39	36	34	32	30	26
5	69	58	51	45	63	54	47	42	46	41	37	38	34	31	31	28	26	23
6	64	52	45	39	59	49	42	37	41	36	32	35	31	28	28	26	23	21
7	59	47	40	35	54	44	37	33	38	32	29	32	28	25	26	23	21	18
8	55	43	36	31	51	40	34	29	34	29	26	29	25	22	24	21	19	17
9	51	40	32	27	47	37	30	26	32	27	23	27	23	20	22	19	17	15
10	48	36	29	25	44	34	28	23	29	24	21	25	21	18	21	18	16	14

**AVERAGE LUMINANCE (cd/sqm):**

	0°	90°	180°	270°
0°	5730	5730	5730	5730
5°	5740	7208	5652	4915
10°	5665	6742	5582	4268
15°	5509	6638	5528	3917
20°	5341	6432	5403	4590
25°	5177	6502	5235	4926
30°	4994	5950	5061	4651
35°	4575	5515	4462	4170
40°	3728	4908	3599	3394
45°	3389	1822	3421	3091
50°	3446	1388	3383	2938
55°	3252	1077	3140	1758
60°	2997	828	2972	979
65°	2759	856	2703	1034
70°	2455	904	2386	1074
75°	2093	945	2005	1103
80°	1579	975	1475	1141
85°	1070	873	939	1070

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 22.5°  
 Vertical Angle: 45°  
 Luminance: 6274 cd/sqm



TEST NUMBER: P621603  
 CATALOG NUMBER: VLT-FA-050U-050D-840-UNV-STD-W-4

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	77.0	2.1
10°-20°	211.0	5.7
20°-30°	315.7	8.6
30°-40°	359.1	9.7
40°-50°	307.1	8.3
50°-60°	207.1	5.6
60°-70°	106.9	2.9
70°-80°	48.3	1.3
80°-90°	15.2	0.4
90°-100°	46.8	1.3
100°-110°	333.1	9.0
110°-120°	452.2	12.3
120°-130°	368.1	10.0
130°-140°	296.0	8.0
140°-150°	233.4	6.3
150°-160°	170.7	4.6
160°-170°	106.0	2.9
170°-180°	36.1	1.0
0°-30°	603.8	16.4
0°-40°	962.8	26.1
0°-60°	1477.0	40.0
0°-90°	1647.4	44.6
90°-120°	832.1	22.6
90°-150°	1729.6	46.9
90°-180°	2042.0	55.3
0°-180°	3689.7	100.0

**CANDELA DISTRIBUTION:**

	0°	90°	180°	270°	360°	Flux
0°	798	798	798	798	798	
5°	797	1001	785	682	797	75
15°	742	894	744	527	742	209
25°	654	821	661	622	654	301
35°	522	630	509	476	522	319
45°	334	180	337	305	334	265
55°	260	86	251	140	260	232
65°	162	50	159	61	162	161
75°	76	34	72	40	76	81
85°	13	11	11	13	13	17
90°	0	7	0	7	0	1
95°	19	26	19	26	19	21
105°	74	366	74	366	74	78
115°	132	906	132	906	132	131
125°	189	727	189	727	189	168
135°	234	581	234	581	234	180
145°	277	488	277	488	277	174
155°	325	418	325	418	325	149
165°	361	390	361	390	361	101
175°	380	375	380	375	380	36
180°	380	380	380	380	380	



TEST NUMBER: P621603

CATALOG NUMBER: VLT-FA-050U-050D-840-UNV-STD-W-4

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
0°	798.5	798.5	798.5	798.5	798.5	798.5	798.5	798.5	798.5	798.5	798.5
2.5°	801.1	828.4	862.8	886.4	896.6	886.4	857.0	828.2	792.0	781.2	755.6
5°	796.9	881.0	982.9	995.2	1000.7	995.2	973.9	876.0	784.7	745.8	703.4
7.5°	787.1	934.4	981.7	954.3	954.4	959.5	983.2	929.8	774.4	713.3	661.4
10°	777.4	964.0	957.7	918.1	925.2	922.0	965.0	958.2	766.0	695.3	636.0
12.5°	764.4	973.3	925.8	912.9	920.7	916.2	930.6	968.2	758.8	682.4	606.8
15°	741.6	960.0	899.2	893.5	893.5	897.5	903.3	964.1	744.1	659.1	571.0
17.5°	718.2	933.6	880.7	852.5	849.5	854.7	887.3	940.4	723.1	633.2	536.4
20°	699.4	915.4	861.8	828.8	842.3	830.4	869.2	920.4	707.5	617.0	515.0
22.5°	682.5	892.8	837.8	823.7	841.7	824.1	844.5	897.7	689.3	598.8	498.7
25°	653.9	854.8	801.7	814.9	821.2	814.9	805.0	858.2	661.2	575.4	481.7
27.5°	625.5	814.8	774.8	783.6	764.2	779.1	779.1	815.0	632.3	548.3	476.5
30°	602.7	787.0	761.1	748.2	718.1	741.9	766.8	787.2	610.8	530.6	475.2
32.5°	572.8	761.5	747.5	703.0	683.6	699.8	753.8	761.0	577.7	514.6	473.9
35°	522.3	725.6	722.9	649.4	629.5	644.6	728.6	723.8	509.3	489.5	463.8
37.5°	454.6	693.6	676.0	595.2	563.6	591.2	681.3	690.2	428.4	466.4	440.3
40°	398.0	672.0	640.9	554.9	523.9	550.9	645.0	670.1	384.2	450.1	414.3
42.5°	366.2	652.9	603.9	512.3	320.5	505.7	607.9	650.5	356.9	429.2	391.5
45°	333.9	618.2	549.9	283.6	179.5	270.1	550.7	609.5	337.1	397.5	356.6
47.5°	319.7	575.5	493.5	170.8	151.6	165.9	493.1	566.1	319.9	365.6	323.3
50°	308.7	548.5	453.3	150.5	124.3	144.9	454.1	539.7	303.0	344.3	300.5
52.5°	290.5	516.4	395.4	124.7	107.4	121.7	385.8	506.2	285.4	321.0	272.0
55°	259.9	454.5	164.9	98.0	86.1	94.0	156.8	439.2	251.0	284.4	238.8
57.5°	227.6	386.9	115.7	76.3	66.8	75.5	114.9	371.4	223.4	240.9	208.3
60°	208.8	341.4	94.2	64.0	57.7	63.2	93.4	327.9	207.1	211.9	180.3
62.5°	189.9	295.2	78.0	56.3	54.4	55.5	77.8	280.4	187.0	187.3	127.0
65°	162.5	223.6	57.7	51.2	50.4	50.4	56.0	215.6	159.2	154.4	73.1
67.5°	134.5	160.6	46.3	47.1	46.3	46.3	45.5	156.0	131.3	123.2	55.2
70°	117.0	123.3	43.1	43.8	43.1	43.1	42.2	120.1	113.7	95.5	52.0
72.5°	100.1	84.2	39.8	40.0	39.8	39.8	39.0	79.0	96.8	67.1	47.4
75°	75.5	42.2	34.1	34.1	34.1	34.1	33.3	40.5	72.3	43.7	40.6
77.5°	52.5	27.9	28.3	28.1	28.1	27.5	27.5	27.6	49.4	30.2	32.8
80°	38.2	23.1	24.4	23.6	23.6	23.6	23.6	22.2	35.7	25.4	27.6
82.5°	27.1	18.4	19.8	19.0	19.0	19.0	19.0	18.2	24.7	20.7	22.4
85°	13.0	12.2	13.0	11.4	10.6	11.4	12.2	12.2	11.4	13.8	14.6
87.5°	3.9	6.3	6.2	5.3	5.3	5.3	5.5	5.6	3.2	6.9	6.8
90°	0.0	2.3	4.8	7.2	7.2	7.2	4.8	2.3	0.0	2.3	4.8
92.5°	5.7	8.1	10.5	14.9	16.7	14.9	10.5	8.1	5.7	8.1	10.5
95°	19.1	35.5	19.1	21.6	26.3	21.6	19.1	35.5	19.1	35.5	19.1
97.5°	34.0	68.1	140.6	41.5	35.9	41.5	140.6	68.1	34.0	68.1	140.6
100°	45.4	85.2	282.2	83.1	55.0	83.1	282.2	85.2	45.4	85.2	282.2
102.5°	56.9	98.5	381.6	219.2	120.0	219.2	381.6	98.5	56.9	98.5	381.6
105°	74.1	113.9	432.8	552.9	365.9	552.9	432.8	113.9	74.1	113.9	432.8
107.5°	91.3	121.3	413.2	804.7	753.7	804.7	413.2	121.3	91.3	121.3	413.2
110°	102.8	130.9	401.7	845.5	908.7	845.5	401.7	130.9	102.8	130.9	401.7



TEST NUMBER: P621603

CATALOG NUMBER: VLT-FA-050U-050D-840-UNV-STD-W-4

**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
112.5°	114.3	142.4	390.2	821.6	927.8	821.6	390.2	142.4	114.3	142.4	390.2
115°	131.5	159.6	373.0	775.3	906.3	775.3	373.0	159.6	131.5	159.6	373.0
117.5°	149.2	176.8	368.7	725.2	859.9	725.2	368.7	176.8	149.2	176.8	368.7
120°	162.6	188.3	361.1	687.1	827.4	687.1	361.1	188.3	162.6	188.3	361.1
122.5°	172.2	199.8	351.5	654.3	783.4	654.3	351.5	199.8	172.2	199.8	351.5
125°	188.9	214.6	351.5	614.7	726.9	614.7	351.5	214.6	188.9	214.6	351.5
127.5°	202.8	229.0	352.0	568.8	679.6	568.8	352.0	229.0	202.8	229.0	352.0
130°	210.4	238.5	353.9	538.0	643.2	538.0	353.9	238.5	210.4	238.5	353.9
132.5°	220.0	248.0	353.9	524.2	610.7	524.2	353.9	248.0	220.0	248.0	353.9
135°	234.3	260.1	353.9	506.2	581.1	506.2	353.9	260.1	234.3	260.1	353.9
137.5°	246.3	273.9	353.9	486.4	550.5	486.4	353.9	273.9	246.3	273.9	353.9
140°	255.9	281.6	353.9	474.8	533.2	474.8	353.9	281.6	255.9	281.6	353.9
142.5°	265.4	289.3	355.8	461.3	516.0	461.3	355.8	289.3	265.4	289.3	355.8
145°	277.4	300.8	356.3	441.0	487.8	441.0	356.3	300.8	277.4	300.8	356.3
147.5°	291.7	312.3	359.2	426.5	462.5	426.5	359.2	312.3	291.7	312.3	359.2
150°	301.3	320.0	361.1	416.8	447.2	416.8	361.1	320.0	301.3	320.0	361.1
152.5°	310.9	327.7	361.1	409.0	433.8	409.0	361.1	327.7	310.9	327.7	361.1
155°	325.2	336.9	363.5	399.8	418.5	399.8	363.5	336.9	325.2	336.9	363.5
157.5°	336.7	347.9	366.3	393.9	407.5	393.9	366.3	347.9	336.7	347.9	366.3
160°	344.3	353.7	368.2	390.0	401.7	390.0	368.2	353.7	344.3	353.7	368.2
162.5°	350.1	359.4	370.2	388.0	396.0	388.0	370.2	359.4	350.1	359.4	370.2
165°	361.1	365.7	373.0	382.8	389.8	382.8	373.0	365.7	361.1	365.7	373.0
167.5°	367.3	371.5	375.4	380.3	384.5	380.3	375.4	371.5	367.3	371.5	375.4
170°	373.0	375.4	375.4	380.3	382.6	380.3	375.4	375.4	373.0	375.4	375.4
172.5°	374.9	379.1	377.3	378.3	380.7	378.3	377.3	379.1	374.9	379.1	377.3
175°	380.2	382.5	380.2	377.8	375.4	377.8	380.2	382.5	380.2	382.5	380.2
177.5°	380.2	382.1	380.2	380.2	378.3	380.2	380.2	382.1	380.2	382.1	380.2
180°	380.2	380.2	380.2	380.2	380.2	380.2	380.2	380.2	380.2	380.2	380.2



TEST NUMBER: P621603

CATALOG NUMBER: VLT-FA-050U-050D-840-UNV-STD-W-4

**CANDELA DISTRIBUTION (continued):**

	247.5°	270°	292.5°	315°	337.5°	360°
0°	798.5	798.5	798.5	798.5	798.5	798.5
2.5°	746.5	745.8	747.1	758.2	780.7	801.1
5°	679.9	682.3	684.7	703.4	742.8	796.9
7.5°	628.8	625.3	630.7	661.2	709.6	787.1
10°	593.6	585.7	593.6	635.2	691.6	777.4
12.5°	560.4	550.6	563.0	608.6	676.7	764.4
15°	517.6	527.2	521.6	572.7	654.3	741.6
17.5°	527.8	575.8	537.9	541.5	632.0	718.2
20°	551.9	601.1	567.7	520.7	617.6	699.4
22.5°	573.7	610.8	580.7	503.1	603.2	682.5
25°	590.4	622.2	588.9	487.4	582.4	653.9
27.5°	591.3	595.7	591.6	486.1	556.7	625.5
30°	580.4	561.3	578.8	487.4	538.4	602.7
32.5°	549.1	527.5	542.4	484.8	519.9	572.8
35°	504.6	476.0	496.7	471.1	491.3	522.3
37.5°	457.6	421.4	450.0	444.2	466.9	454.6
40°	425.8	362.3	419.5	417.5	453.6	398.0
42.5°	385.1	331.1	379.4	396.1	438.9	366.2
45°	311.0	304.6	307.8	359.8	407.7	333.9
47.5°	284.4	280.1	282.8	326.9	372.5	319.7
50°	268.7	263.2	267.2	305.4	350.0	308.7
52.5°	247.1	232.0	245.5	276.2	326.7	290.5
55°	185.8	140.5	185.0	242.9	291.7	259.9
57.5°	109.0	81.2	106.6	211.4	247.1	227.6
60°	73.8	68.2	74.6	186.0	217.5	208.8
62.5°	67.4	65.6	67.5	129.5	191.0	189.9
65°	61.7	60.9	61.7	74.7	157.7	162.5
67.5°	55.9	55.1	56.5	57.3	124.5	134.5
70°	52.0	51.2	52.0	52.8	95.5	117.0
72.5°	47.4	46.6	47.4	48.3	67.2	100.1
75°	40.6	39.8	40.6	41.4	44.6	75.5
77.5°	32.8	32.8	33.6	33.6	31.2	52.5
80°	27.6	27.6	28.4	28.4	27.1	38.2
82.5°	22.4	21.8	23.2	23.9	22.4	27.1
85°	13.8	13.0	14.6	15.4	14.6	13.0
87.5°	6.6	6.0	7.3	8.1	7.5	3.9
90°	7.2	7.2	7.2	4.8	2.3	0.0
92.5°	14.9	16.7	14.9	10.5	8.1	5.7
95°	21.6	26.3	21.6	19.1	35.5	19.1
97.5°	41.5	35.9	41.5	140.6	68.1	34.0
100°	83.1	55.0	83.1	282.2	85.2	45.4
102.5°	219.2	120.0	219.2	381.6	98.5	56.9
105°	552.9	365.9	552.9	432.8	113.9	74.1
107.5°	804.7	753.7	804.7	413.2	121.3	91.3
110°	845.5	908.7	845.5	401.7	130.9	102.8





TEST NUMBER: P621603

CATALOG NUMBER: VLT-FA-050U-050D-840-UNV-STD-W-4

**CANDELA DISTRIBUTION (continued):**

	247.5°	270°	292.5°	315°	337.5°	360°
112.5°	821.6	927.8	821.6	390.2	142.4	114.3
115°	775.3	906.3	775.3	373.0	159.6	131.5
117.5°	725.2	859.9	725.2	368.7	176.8	149.2
120°	687.1	827.4	687.1	361.1	188.3	162.6
122.5°	654.3	783.4	654.3	351.5	199.8	172.2
125°	614.7	726.9	614.7	351.5	214.6	188.9
127.5°	568.8	679.6	568.8	352.0	229.0	202.8
130°	538.0	643.2	538.0	353.9	238.5	210.4
132.5°	524.2	610.7	524.2	353.9	248.0	220.0
135°	506.2	581.1	506.2	353.9	260.1	234.3
137.5°	486.4	550.5	486.4	353.9	273.9	246.3
140°	474.8	533.2	474.8	353.9	281.6	255.9
142.5°	461.3	516.0	461.3	355.8	289.3	265.4
145°	441.0	487.8	441.0	356.3	300.8	277.4
147.5°	426.5	462.5	426.5	359.2	312.3	291.7
150°	416.8	447.2	416.8	361.1	320.0	301.3
152.5°	409.0	433.8	409.0	361.1	327.7	310.9
155°	399.8	418.5	399.8	363.5	336.9	325.2
157.5°	393.9	407.5	393.9	366.3	347.9	336.7
160°	390.0	401.7	390.0	368.2	353.7	344.3
162.5°	388.0	396.0	388.0	370.2	359.4	350.1
165°	382.8	389.8	382.8	373.0	365.7	361.1
167.5°	380.3	384.5	380.3	375.4	371.5	367.3
170°	380.3	382.6	380.3	375.4	375.4	373.0
172.5°	378.3	380.7	378.3	377.3	379.1	374.9
175°	377.8	375.4	377.8	380.2	382.5	380.2
177.5°	380.2	378.3	380.2	380.2	382.1	380.2
180°	380.2	380.2	380.2	380.2	380.2	380.2

(END OF REPORT)