

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: FAIL-SAFE

Report Number: P231996

Luminaire Tested: **FVS4M-4-LD4-30-2STD-PFS125-UNV-EDC1**

Issue Date: 3/3/2020



**Test Information**

Test Method: LM-79-08  
Report Number: P231996  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1706-121-19)  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: FAIL-SAFE  
Catalog Number: FVS4M-4-LD4-30-2STD-PFS125-UNV-EDC1  
Description: FAILSAFE FVS LED FIXTURE  
4FT LENGTH, 2-MODULE LED WITH PFS125 LENS  
Light Source: (168) 3000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

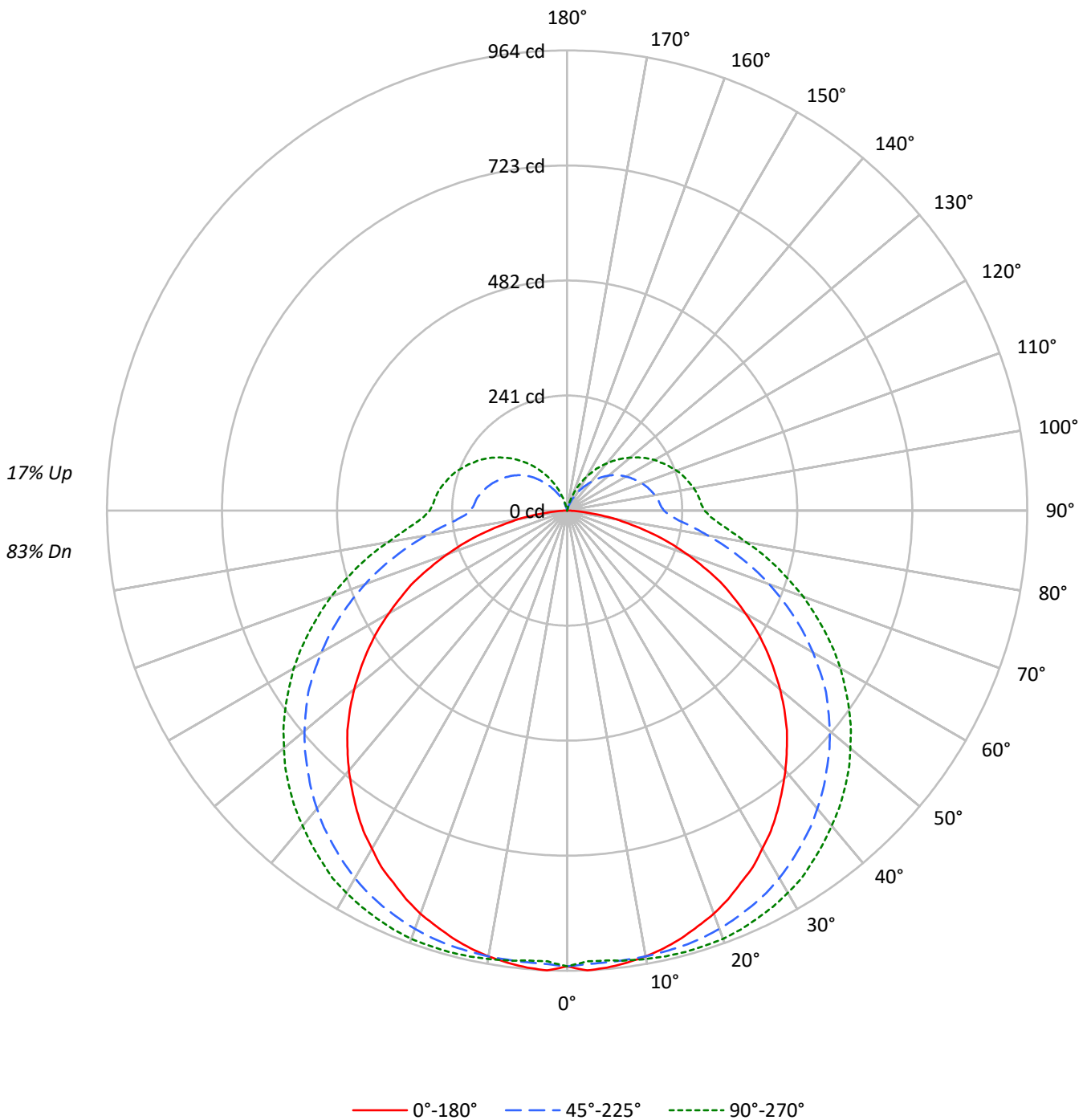
Lumens per Lamp: N/A  
Luminaire Lumens: 4279.0 lumens  
Efficiency: N/A  
Efficacy: 63.4 lumens/watt  
Spacing Criteria (0/90/45): 1.27 / 1.44 / 1.52  
Luminous Opening: Rectangular w/ Sides (W: 0.31' x L: 3.79' x H: 0.19')  
CIE Type: Semi-Direct

Input Watts (W): 67.5  
Input Voltage (V): 120  
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

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CATALOG NUMBER: FVS4M-4-LD4-30-2STD-PFS125-UNV-EDC1

### Luminous Intensity Polar Plot





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

RF	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	115	115	115	115	110	110	110	110	102	102	102	94	94	94	87	87	87	83
1	103	97	92	88	98	93	89	85	86	82	79	79	76	74	73	71	68	65
2	93	83	76	69	88	80	73	67	74	68	63	68	63	59	63	59	56	52
3	84	72	64	57	80	70	62	55	64	57	52	59	54	49	55	50	46	43
4	76	64	54	47	73	61	53	46	57	49	44	52	46	41	48	43	39	36
5	70	56	47	40	67	54	46	39	50	43	37	47	40	35	43	38	33	31
6	64	51	41	35	61	49	40	34	45	38	32	42	36	31	39	33	29	27
7	59	46	37	30	57	44	36	30	41	34	28	38	32	27	35	30	26	23
8	55	41	33	27	53	40	32	26	37	30	25	35	28	24	32	27	23	21
9	51	38	29	24	49	37	29	23	34	27	22	32	26	21	30	24	20	18
10	48	35	27	21	46	34	26	21	32	25	20	29	24	19	28	22	18	17

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

	0°	45°	90°
0°	8673	8673	8673
5°	8726	8328	8196
10°	8673	8093	7957
15°	8604	7902	7755
20°	8533	7725	7575
25°	8432	7549	7385
30°	8341	7372	7204
35°	8232	7176	7005
40°	8097	6981	6801
45°	7969	6769	6605
50°	7770	6560	6381
55°	7536	6333	6146
60°	7228	6019	5892
65°	6888	5679	5591
70°	6253	5286	5275
75°	5414	4828	4919
80°	4233	4328	4521
85°	2158	3905	4259



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	91.0	2.1
10°-20°	267.1	6.2
20°-30°	420.0	9.8
30°-40°	529.9	12.4
40°-50°	583.2	13.6
50°-60°	573.2	13.4
60°-70°	498.3	11.6
70°-80°	370.4	8.7
80°-90°	236.5	5.5
90°-100°	186.7	4.4
100°-110°	165.4	3.9
110°-120°	135.9	3.2
120°-130°	102.2	2.4
130°-140°	67.3	1.6
140°-150°	36.3	0.8
150°-160°	13.7	0.3
160°-170°	1.9	0.0
170°-180°	0.0	0.0
0°-30°	778.1	18.2
0°-40°	1308.0	30.6
0°-60°	2464.4	57.6
0°-90°	3569.6	83.4
90°-120°	488.0	11.4
90°-150°	693.8	16.2
90°-180°	709.0	16.6
0°-180°	4279.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	955	955	955	955	955	
5°	961	958	950	952	946	91
15°	927	932	944	958	957	262
25°	861	884	914	941	943	397
35°	768	807	855	891	897	480
45°	651	704	769	813	823	501
55°	509	581	662	709	721	455
65°	354	434	524	581	595	348
75°	183	273	373	435	454	193
85°	32	131	234	300	321	41
90°	0	96	202	268	288	1
95°	0	91	194	259	278	0
105°	0	80	177	239	258	0
115°	0	67	155	212	229	0
125°	0	53	129	178	193	0
135°	0	35	97	140	151	0
145°	1	19	61	98	107	1
155°	1	6	28	49	58	0
165°	1	0	5	8	13	0
175°	0	0	0	0	0	0
180°	0	0	0	0	0	0



TEST NUMBER: P231996

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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	954.7	954.7	954.7	954.7	954.7	954.7	954.7	954.7	954.7	954.7	954.7
2.5°	964.2	962.6	960.3	959.5	960.3	960.3	960.3	958.7	954.7	950.8	950.8
5°	961.0	960.3	957.1	956.3	957.1	957.9	957.9	956.3	953.1	950.0	950.0
7.5°	955.5	954.7	952.3	951.6	953.1	953.9	954.7	953.1	951.6	949.2	950.0
10°	948.4	946.8	945.2	944.4	946.0	948.4	950.0	950.0	949.2	948.4	950.8
12.5°	938.9	938.1	935.7	936.5	938.9	942.9	945.2	946.8	946.8	946.0	950.0
15°	927.0	927.0	925.5	926.2	929.4	934.9	938.9	941.3	942.1	943.6	947.6
17.5°	912.8	913.6	912.0	913.6	919.9	926.2	931.8	934.2	936.5	938.9	944.4
20°	898.6	898.6	897.0	900.9	907.3	915.2	920.7	925.5	928.6	932.6	938.1
22.5°	881.2	881.2	881.2	885.9	893.8	901.7	910.4	916.0	919.9	923.9	931.0
25°	860.6	863.0	862.2	869.3	878.8	889.1	897.0	902.5	908.8	914.4	922.3
27.5°	842.4	840.8	842.4	850.3	861.4	870.9	881.9	888.3	895.4	903.3	911.2
30°	817.9	817.1	821.0	830.5	841.6	854.3	864.5	872.5	881.2	889.1	898.6
32.5°	794.9	792.6	798.1	810.0	821.0	836.1	845.6	854.3	863.0	873.2	882.7
35°	768.0	767.3	773.6	785.4	799.7	813.9	826.6	836.9	845.6	855.1	866.9
37.5°	739.6	742.7	748.3	760.1	776.0	791.0	803.6	813.9	824.2	836.9	848.7
40°	711.1	712.7	719.0	734.0	750.6	766.5	779.9	789.4	803.6	815.5	827.4
42.5°	681.0	680.2	692.9	707.9	723.8	741.2	754.6	767.3	780.7	793.4	806.0
45°	651.0	648.6	661.3	677.9	695.3	713.5	729.3	743.5	756.2	768.8	781.5
47.5°	617.0	617.8	631.2	647.8	666.8	685.0	707.1	715.8	729.3	745.1	757.8
50°	582.2	582.2	598.0	616.2	634.4	655.7	671.5	687.4	704.0	718.2	731.7
52.5°	545.8	548.9	563.2	583.7	605.1	623.3	639.9	658.9	674.7	689.7	703.2
55°	509.4	512.6	530.8	548.9	571.9	590.9	609.1	626.5	643.1	662.1	673.9
57.5°	472.2	477.0	493.6	513.3	534.7	556.9	577.4	594.0	612.2	628.0	643.1
60°	431.9	439.0	454.8	474.6	499.1	521.3	541.0	559.2	577.4	594.8	609.1
62.5°	392.3	398.7	416.1	436.6	461.1	485.7	503.1	525.2	543.4	560.0	575.8
65°	354.4	359.1	378.1	398.7	423.2	445.3	467.5	488.0	506.2	524.4	541.0
67.5°	309.3	318.0	336.2	359.1	383.6	406.6	427.9	450.1	469.8	487.2	503.9
70°	267.4	275.3	293.5	318.0	344.1	369.4	391.5	412.1	432.7	450.1	466.7
72.5°	225.4	234.1	252.3	274.5	301.4	325.1	349.6	372.6	394.7	412.9	429.5
75°	182.7	190.6	211.2	235.7	262.6	284.0	311.6	333.0	354.4	373.3	392.3
77.5°	137.6	149.5	168.5	194.6	219.9	246.8	272.1	295.0	315.6	336.2	355.9
80°	103.6	109.9	128.1	156.6	181.1	208.8	232.5	257.1	280.0	298.2	316.4
82.5°	63.3	72.8	95.7	117.9	147.9	171.6	198.5	222.3	244.4	265.0	282.4
85°	32.4	42.7	62.5	89.4	117.1	144.8	167.7	192.2	214.4	234.1	252.3
87.5°	9.5	19.0	41.1	66.4	94.1	121.8	147.1	170.9	193.0	213.6	231.8
90°	0.0	9.5	30.8	56.2	83.1	109.9	135.3	159.8	181.9	202.5	220.7
92.5°	0.0	8.7	28.5	53.0	79.9	106.0	131.3	155.0	176.4	197.0	215.1
95°	0.0	7.9	26.9	51.4	77.5	103.6	128.9	152.7	174.0	193.8	212.0
97.5°	0.0	7.1	25.3	49.0	75.1	100.5	125.8	149.5	170.9	191.4	209.6
100°	0.0	6.3	24.5	47.5	72.8	97.3	122.6	145.5	166.9	186.7	204.9
102.5°	0.0	5.5	22.9	45.1	69.6	94.9	118.6	141.6	162.9	181.9	200.1
105°	0.0	5.5	21.4	43.5	67.2	91.8	114.7	137.6	158.2	177.2	195.4
107.5°	0.0	4.7	20.6	41.1	64.9	87.8	110.7	132.9	153.5	172.4	189.8
110°	0.0	4.0	19.0	39.5	61.7	84.6	107.6	128.9	148.7	166.9	184.3



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	0.0	3.2	17.4	37.2	58.5	80.7	102.8	123.4	143.2	160.6	177.2
115°	0.0	2.4	16.6	34.8	56.2	77.5	98.1	118.6	137.6	155.0	170.9
117.5°	0.0	1.6	15.0	32.4	53.0	73.6	94.1	113.9	132.1	148.7	164.5
120°	0.0	1.6	13.4	30.8	49.8	69.6	89.4	108.4	126.6	142.4	157.4
122.5°	0.0	0.8	11.9	28.5	46.7	65.7	84.6	102.8	119.4	136.0	150.3
125°	0.0	0.8	10.3	26.1	43.5	61.7	79.9	97.3	113.9	128.9	143.2
127.5°	0.0	0.8	8.7	22.9	39.5	57.0	74.4	91.0	107.6	121.8	135.3
130°	0.0	0.8	7.1	20.6	35.6	52.2	68.8	84.6	100.5	113.9	127.3
132.5°	0.0	0.8	5.5	17.4	31.6	46.7	61.7	77.5	91.8	106.0	118.6
135°	0.0	0.0	4.0	15.0	27.7	41.9	55.4	69.6	83.8	97.3	109.9
137.5°	0.8	0.8	3.2	12.7	24.5	36.4	49.8	62.5	75.1	87.8	100.5
140°	0.8	0.8	2.4	10.3	20.6	32.4	43.5	55.4	67.2	78.3	89.4
142.5°	0.8	0.8	1.6	7.9	17.4	27.7	38.0	49.0	59.3	68.8	79.1
145°	0.8	0.8	1.6	5.5	14.2	22.9	33.2	41.9	51.4	60.9	68.8
147.5°	0.8	0.8	0.8	4.0	11.1	19.0	27.7	35.6	44.3	52.2	59.3
150°	0.8	0.8	0.8	3.2	8.7	15.8	22.9	29.3	37.2	43.5	50.6
152.5°	0.8	0.8	0.8	2.4	6.3	12.7	18.2	24.5	30.1	36.4	41.1
155°	0.8	0.8	0.8	1.6	4.0	8.7	14.2	19.0	23.7	28.5	33.2
157.5°	0.8	0.8	0.8	0.8	2.4	5.5	10.3	14.2	18.2	21.4	26.1
160°	0.8	0.8	0.8	0.8	1.6	3.2	6.3	9.5	12.7	15.8	18.2
162.5°	0.8	0.8	0.8	0.0	0.8	1.6	3.2	5.5	7.9	10.3	11.9
165°	0.8	0.8	0.8	0.0	0.0	0.0	0.8	1.6	3.2	4.7	5.5
167.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
170°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
172.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
175°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
177.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
180°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



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**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
0°	954.7	954.7	954.7	954.7	954.7	954.7	954.7	954.7
2.5°	951.6	952.3	951.6	950.8	949.2	947.6	946.0	945.2
5°	951.6	952.3	951.6	951.6	950.0	948.4	946.8	946.0
7.5°	953.1	953.9	953.9	953.9	953.9	953.1	951.6	950.8
10°	953.9	956.3	957.1	957.1	957.1	956.3	955.5	953.9
12.5°	953.9	957.1	957.9	958.7	959.5	958.7	957.1	956.3
15°	952.3	956.3	957.9	958.7	959.5	959.5	957.9	957.1
17.5°	950.0	953.9	956.3	957.1	958.7	957.9	957.1	956.3
20°	944.4	949.2	952.3	954.7	955.5	956.3	955.5	954.7
22.5°	938.1	942.9	946.8	949.2	950.8	951.6	950.8	950.0
25°	929.4	934.9	939.7	942.1	943.6	945.2	944.4	942.9
27.5°	919.1	924.7	929.4	932.6	935.7	935.7	935.7	934.9
30°	905.7	912.8	917.5	921.5	923.9	925.5	925.5	924.7
32.5°	892.2	899.3	904.1	908.8	911.2	912.0	912.8	913.6
35°	875.6	882.7	889.1	893.0	896.2	897.8	897.8	897.0
37.5°	857.4	866.1	872.5	876.4	881.2	881.2	881.2	880.4
40°	836.9	844.8	852.7	857.4	862.2	863.0	862.2	862.2
42.5°	817.1	825.0	832.1	837.7	840.8	842.4	843.2	844.0
45°	793.4	802.8	810.0	816.3	819.5	821.8	822.6	822.6
47.5°	768.0	778.3	786.2	791.8	796.5	799.7	798.1	800.5
50°	743.5	752.2	761.7	766.5	771.2	775.2	774.4	774.4
52.5°	715.8	724.5	734.0	741.2	745.1	748.3	749.1	749.1
55°	685.8	696.1	705.6	711.9	716.6	719.0	720.6	720.6
57.5°	655.7	666.0	674.7	683.4	688.2	692.1	692.1	690.5
60°	623.3	634.4	643.9	651.0	658.9	659.7	660.5	661.3
62.5°	590.1	601.1	611.4	620.1	624.1	628.0	630.4	628.8
65°	555.3	564.8	578.2	583.7	589.3	591.7	595.6	594.8
67.5°	520.5	532.3	541.0	550.5	556.9	557.6	562.4	560.0
70°	480.9	492.8	505.4	511.8	518.9	521.3	523.6	526.0
72.5°	444.5	457.2	467.5	477.0	480.9	484.9	488.0	488.8
75°	406.6	421.6	429.5	439.8	445.3	448.5	453.2	454.0
77.5°	368.6	382.0	393.9	401.0	408.1	412.1	415.3	418.4
80°	331.4	343.3	356.7	367.0	374.1	377.3	381.3	380.5
82.5°	298.2	311.6	323.5	332.2	340.1	344.9	348.8	348.8
85°	270.5	285.5	295.0	304.5	311.6	316.4	320.3	321.1
87.5°	250.0	263.4	276.1	284.0	291.9	296.6	299.8	300.6
90°	237.3	251.5	263.4	272.9	280.0	284.8	287.9	287.9
92.5°	231.8	245.2	257.9	266.6	273.7	278.4	280.8	281.6
95°	228.6	242.0	253.9	263.4	270.5	275.3	277.6	278.4
97.5°	225.4	238.9	250.0	260.2	266.6	271.3	273.7	274.5
100°	220.7	234.1	246.0	254.7	262.6	266.6	268.9	269.7
102.5°	215.9	228.6	240.5	249.2	256.3	260.2	263.4	263.4
105°	210.4	224.6	234.9	243.6	250.7	255.5	257.1	257.9
107.5°	204.9	218.3	229.4	238.1	244.4	248.4	251.5	251.5
110°	199.3	212.0	222.3	231.0	237.3	241.3	243.6	244.4





TEST NUMBER: P231996

CATALOG NUMBER: FVS4M-4-LD4-30-2STD-PFS125-UNV-EDC1

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	192.2	204.9	215.1	223.8	229.4	233.3	235.7	235.7
115°	185.1	197.7	208.0	216.7	222.3	226.2	227.8	228.6
117.5°	178.0	189.8	200.1	208.0	213.6	217.5	219.1	219.1
120°	170.9	182.7	192.2	200.1	205.7	208.8	211.2	212.0
122.5°	162.9	174.0	183.5	191.4	197.0	200.1	201.7	202.5
125°	155.0	166.1	174.8	181.9	187.5	190.6	193.0	193.0
127.5°	147.1	157.4	166.1	172.4	177.2	180.3	181.9	182.7
130°	138.4	147.1	155.8	162.2	167.7	170.1	172.4	172.4
132.5°	129.7	138.4	146.3	153.5	156.6	159.8	162.2	162.2
135°	121.0	128.9	136.8	142.4	146.3	149.5	151.1	151.1
137.5°	111.5	120.2	127.3	132.1	136.0	138.4	140.0	140.8
140°	101.2	110.7	116.3	121.0	125.0	127.3	128.9	128.9
142.5°	89.4	98.9	106.0	111.5	113.9	115.5	117.9	117.9
145°	78.3	87.0	95.7	100.5	103.6	105.2	106.0	106.8
147.5°	67.2	75.1	83.1	88.6	91.8	92.5	93.3	93.3
150°	57.0	63.3	70.4	77.5	79.9	81.5	82.3	83.1
152.5°	47.5	52.2	58.5	64.1	68.8	69.6	70.4	70.4
155°	38.0	42.7	46.7	51.4	57.0	57.7	58.5	58.5
157.5°	29.3	32.4	35.6	38.8	43.5	46.7	46.7	47.5
160°	20.6	23.7	25.3	27.7	30.8	34.8	34.8	34.8
162.5°	13.4	15.0	16.6	17.4	19.0	22.1	23.7	23.7
165°	7.1	7.1	7.9	8.7	9.5	10.3	12.7	13.4
167.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
170°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
172.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
175°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
177.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
180°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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