

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: HALO

Report Number: P601032

Luminaire Tested: FM89S1EWHR\_4000K

Issue Date: 3/14/2023

**Test Information**

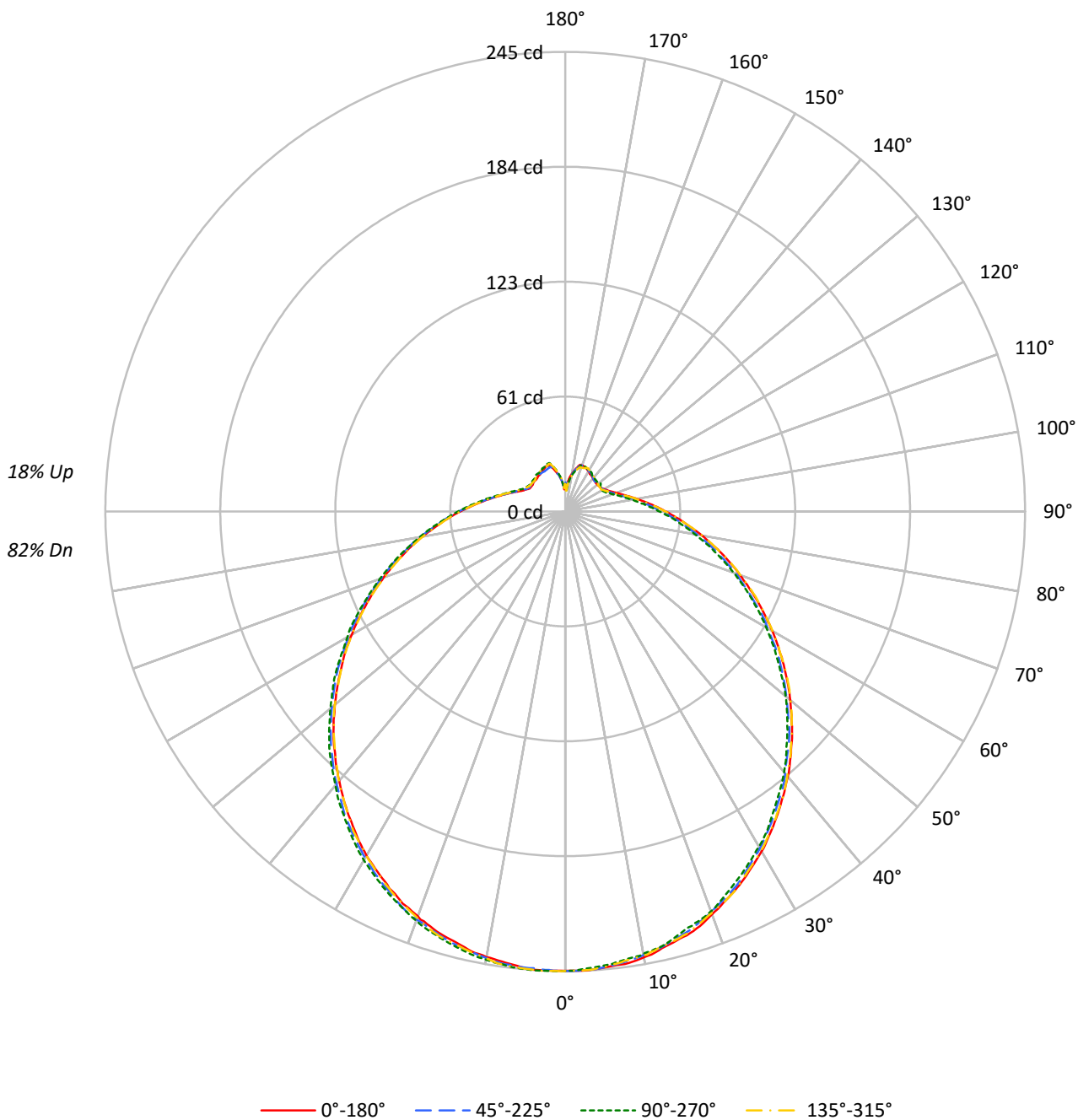
Test Method: LM-79-2019  
Report Number: P601032  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA ( A2117574A001)  
Test Lab: INNOVATION CENTER  
Issue Date: 3/14/2023  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: HALO  
Catalog Number: FM89S1EWHR\_4000K  
Description: FM89S1EWHR at 4000K  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1040.0 lumens  
Efficiency: N/A  
Efficacy: 110.6 lumens/watt  
Spacing Criteria (0/90/45): 1.28 / 1.28 / 1.41  
Luminous Opening: Vertical Cylinder (Dia: 0.75' x H: 0.33')  
CIE Type: Semi-Direct  
  
Input Watts (W): 9.4  
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: 24 FT

TEST NUMBER: P601032  
CATALOG NUMBER: FM89S1EWHR\_4000K

### 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	101	101	101	93	93	93	86	86	86	82
1	102	96	91	86	97	92	88	83	85	81	77	78	75	72	71	69	67	63
2	92	83	75	69	87	79	72	66	73	67	62	67	62	58	61	57	54	51
3	83	72	63	56	79	69	61	54	63	57	51	58	53	48	53	49	45	42
4	76	63	54	47	72	61	52	46	56	49	43	51	45	40	47	42	38	35
5	70	56	47	40	66	54	45	39	50	42	37	46	40	35	42	37	33	30
6	64	50	41	35	61	48	40	34	45	37	32	41	35	30	38	33	29	26
7	59	45	37	30	56	44	35	30	41	33	28	38	31	27	35	29	25	23
8	55	41	33	27	53	40	32	26	37	30	25	34	28	24	32	27	23	20
9	51	38	30	24	49	37	29	23	34	27	22	32	26	21	30	24	20	18
10	48	35	27	22	46	34	26	21	31	25	20	29	23	19	27	22	18	16

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

	0°	90°	180°	270°
0°	5967	5967	5967	5967
5°	5689	5663	5698	5710
10°	5435	5390	5431	5462
15°	5172	5121	5180	5226
20°	4923	4887	4945	5001
25°	4683	4621	4726	4775
30°	4449	4390	4505	4562
35°	4213	4144	4271	4337
40°	3992	3927	4052	4119
45°	3774	3695	3849	3924
50°	3557	3487	3639	3712
55°	3351	3261	3436	3521
60°	3151	3059	3247	3314
65°	2959	2865	3061	3127
70°	2777	2679	2887	2949
75°	2625	2507	2729	2787
80°	2486	2358	2593	2640
85°	2379	2254	2485	2534

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 270°  
 Vertical Angle: 45°  
 Luminance: 3924 cd/sqm



TEST NUMBER: P601032  
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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	23.2	2.2
10°-20°	66.7	6.4
20°-30°	101.7	9.8
30°-40°	124.3	12.0
40°-50°	133.1	12.8
50°-60°	128.6	12.4
60°-70°	113.7	10.9
70°-80°	92.6	8.9
80°-90°	70.0	6.7
90°-100°	50.4	4.8
100°-110°	35.7	3.4
110°-120°	25.9	2.5
120°-130°	20.7	2.0
130°-140°	18.0	1.7
140°-150°	15.3	1.5
150°-160°	11.8	1.1
160°-170°	6.8	0.6
170°-180°	1.6	0.2
0°-30°	191.5	18.4
0°-40°	315.9	30.4
0°-60°	577.6	55.5
0°-90°	853.9	82.1
90°-120°	111.9	10.8
90°-150°	165.9	16.0
90°-180°	186.0	17.9
0°-180°	1040.0	100.0

**CANDELA DISTRIBUTION:**

	0°	90°	180°	270°	360°	Flux
0°	245	245	245	245	245	
5°	244	243	244	245	244	23
15°	236	234	236	238	236	67
25°	220	217	222	224	220	101
35°	197	194	200	203	197	123
45°	171	167	174	178	171	132
55°	142	138	146	149	142	127
65°	113	109	117	119	113	112
75°	86	82	90	92	86	91
85°	63	60	66	67	63	54
90°	54	50	56	57	54	29
95°	46	42	47	48	46	36
105°	33	31	34	35	33	35
115°	26	24	26	27	26	26
125°	23	23	23	24	23	20
135°	22	23	23	24	22	17
145°	24	25	24	25	24	15
155°	26	26	26	26	26	12
165°	24	23	23	25	24	7
175°	16	13	15	15	16	2
180°	15	15	15	15	15	



TEST NUMBER: P601032  
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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
0°	244.9	244.9	244.9	244.9	244.9	244.9	244.9	244.9	244.9	244.9	244.9
0.5°	244.9	244.9	245.0	244.9	244.9	244.9	244.9	244.9	244.9	244.9	244.9
1°	244.9	244.9	245.0	244.9	244.9	244.9	244.9	244.9	244.9	244.9	244.8
1.5°	244.9	245.0	244.9	244.9	244.6	244.8	244.8	244.9	244.9	244.9	244.9
2°	245.0	245.0	244.9	244.9	244.3	244.4	244.8	244.9	244.9	244.9	244.6
2.5°	244.9	244.9	244.8	244.9	244.0	244.1	244.8	244.9	244.9	244.9	244.6
3°	244.9	244.6	244.8	244.4	243.8	243.9	244.7	244.9	244.9	244.8	244.5
3.5°	244.6	244.3	244.6	244.0	243.6	243.6	244.6	244.7	244.9	244.7	244.4
4°	244.4	244.1	244.4	243.8	243.4	243.5	244.2	244.2	244.9	244.4	244.1
4.5°	244.2	243.8	244.1	243.6	243.1	243.3	243.9	243.9	244.8	244.1	244.2
5°	244.0	243.6	243.8	243.3	242.9	242.9	243.7	243.5	244.4	243.8	244.1
5.5°	243.8	243.4	243.5	243.2	242.6	242.7	243.3	243.3	244.0	243.6	244.0
6°	243.6	243.2	243.1	243.1	242.4	242.4	242.9	242.9	243.6	243.4	243.9
6.5°	243.4	242.9	242.8	243.1	241.8	242.3	242.6	242.6	243.3	243.2	243.7
7°	243.3	242.6	242.5	242.9	241.6	242.0	242.3	242.3	242.9	242.9	243.5
7.5°	243.3	242.3	242.2	242.6	241.2	241.6	241.7	242.2	242.6	242.7	243.5
8°	243.1	241.8	241.8	242.1	240.8	241.2	241.5	241.8	242.3	242.4	243.3
8.5°	242.7	241.5	241.5	241.5	240.5	240.7	241.2	241.5	242.0	242.3	242.9
9°	242.3	241.0	241.1	240.8	240.2	240.3	240.9	241.3	241.6	242.1	242.6
9.5°	241.9	240.6	240.7	240.2	240.2	240.4	240.5	241.2	241.3	241.7	242.4
10°	241.4	240.4	240.2	239.4	239.4	239.5	240.3	240.7	241.2	241.3	241.8
10.5°	241.0	239.9	239.7	239.0	239.0	239.0	240.2	240.4	240.6	240.9	241.4
11°	240.6	239.4	239.4	238.7	238.9	238.7	239.3	240.0	240.3	240.4	241.0
11.5°	239.9	238.9	238.9	238.6	238.3	238.2	238.9	239.4	240.2	240.0	240.5
12°	239.2	238.2	238.4	238.3	237.9	237.8	238.2	238.8	239.8	240.1	240.1
12.5°	238.5	237.7	237.8	238.2	237.4	237.2	237.8	238.2	239.1	239.0	240.1
13°	238.0	237.0	237.2	237.7	236.8	236.7	237.3	237.7	238.4	238.6	239.3
13.5°	237.5	236.4	236.5	237.1	236.1	236.0	236.8	237.2	237.8	238.2	238.9
14°	236.9	235.9	235.9	236.4	235.3	235.5	236.4	236.7	237.3	237.8	238.4
14.5°	236.4	235.5	235.3	235.6	234.4	234.9	235.8	236.4	236.7	237.4	237.9
15°	235.8	235.0	234.8	234.9	233.5	234.4	235.3	235.6	236.2	236.8	237.5
15.5°	235.4	234.4	234.1	234.2	232.8	234.1	234.7	235.3	235.7	236.3	236.9
16°	235.0	233.8	233.5	233.4	231.9	233.4	234.3	234.8	235.2	235.6	236.2
16.5°	234.4	233.1	232.9	232.6	231.3	232.8	233.5	234.3	234.6	235.1	235.6
17°	233.8	232.4	232.2	231.8	231.0	232.0	232.7	233.7	234.1	234.5	234.9
17.5°	233.1	231.5	231.4	231.0	230.1	231.2	232.1	233.1	233.3	233.9	234.3
18°	232.4	230.8	230.6	230.2	229.7	231.0	231.1	232.4	232.5	233.2	233.5
18.5°	231.5	230.0	229.8	229.4	229.0	229.7	230.3	231.8	231.9	232.6	233.1
19°	230.5	229.1	228.9	228.8	228.4	229.0	229.5	230.8	231.1	231.9	232.4
19.5°	229.5	228.4	228.1	228.2	227.7	228.3	228.6	229.9	230.9	231.1	231.9
20°	228.6	227.6	227.2	227.5	226.9	227.6	227.9	228.9	229.6	230.7	231.5
20.5°	227.7	226.9	226.3	226.7	226.3	226.7	227.2	228.0	228.8	229.5	231.0
21°	226.9	226.1	225.5	225.8	225.0	226.2	226.4	227.3	228.2	228.7	230.7
21.5°	226.0	225.3	224.6	224.9	224.0	225.0	225.7	226.4	227.3	228.1	229.7
22°	225.0	224.5	223.8	223.9	222.9	223.9	225.1	225.5	226.7	227.2	228.8



TEST NUMBER: P601032  
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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
22.5°	224.1	223.4	223.0	222.8	221.8	222.8	224.2	224.8	226.2	226.4	227.8
23°	223.3	222.4	222.2	221.6	220.8	221.7	223.4	223.8	225.1	226.0	226.9
23.5°	222.4	221.5	221.3	220.6	219.8	220.6	222.6	222.9	224.2	224.9	226.0
24°	221.6	220.4	220.4	219.6	218.8	219.7	221.7	222.1	223.1	224.1	224.9
24.5°	220.6	219.4	219.5	218.6	217.8	218.8	220.6	221.4	222.3	223.3	223.8
25°	219.7	218.5	218.5	217.5	216.8	218.0	219.5	220.4	221.7	222.6	222.9
25.5°	218.7	217.4	217.3	216.4	215.8	216.9	218.3	219.6	220.3	221.5	222.0
26°	217.6	216.4	216.2	215.3	214.8	215.8	217.1	218.6	219.3	220.5	221.3
26.5°	216.6	215.4	215.0	214.3	213.7	214.7	216.0	217.9	218.5	219.5	220.2
27°	215.5	214.3	213.9	213.3	212.8	213.6	214.9	216.9	217.5	218.4	219.2
27.5°	214.4	213.4	212.8	212.3	211.6	212.6	213.9	215.8	216.6	217.4	218.3
28°	213.4	212.2	211.6	211.2	210.7	211.5	212.9	214.8	215.7	216.5	217.3
28.5°	212.4	211.2	210.4	210.2	209.6	210.4	211.9	213.5	214.6	215.6	216.2
29°	211.3	210.2	209.4	209.4	208.4	209.4	210.9	212.3	213.7	214.4	215.2
29.5°	210.3	209.1	208.6	208.1	207.3	208.3	209.8	211.1	212.8	213.3	214.1
30°	209.3	208.2	207.4	206.9	206.5	207.5	208.7	209.9	211.9	212.3	213.1
30.5°	208.3	206.9	206.3	205.8	205.4	206.2	207.8	208.7	210.6	211.1	212.2
31°	207.0	205.6	205.1	204.6	204.4	205.1	206.5	207.9	209.5	209.9	211.0
31.5°	205.7	204.4	204.0	203.3	203.2	204.1	205.3	206.6	208.3	208.8	209.9
32°	204.5	203.1	202.6	202.1	202.0	203.1	204.0	205.5	207.3	207.9	208.8
32.5°	203.3	202.0	201.4	200.8	200.8	201.8	202.9	204.3	206.1	206.8	207.9
33°	202.1	200.9	200.2	199.5	199.4	200.7	201.7	203.1	204.8	205.8	206.7
33.5°	200.9	199.7	199.0	198.3	198.0	199.5	200.6	201.9	203.5	204.8	205.5
34°	199.6	198.5	197.7	197.1	196.5	198.4	199.4	200.8	202.3	204.0	204.4
34.5°	198.4	197.3	196.3	195.9	195.3	197.2	198.2	199.7	201.0	202.8	203.2
35°	197.2	196.2	195.2	194.6	194.0	195.9	196.8	198.5	199.9	201.6	202.1
35.5°	195.9	195.0	193.9	193.5	192.7	194.6	195.6	197.2	198.8	200.4	201.0
36°	194.7	193.8	192.6	192.4	191.5	193.2	194.5	196.1	197.5	199.1	199.9
36.5°	193.4	192.5	191.4	191.2	190.2	191.8	193.4	195.0	196.2	197.8	198.5
37°	192.1	191.4	190.2	190.0	189.0	190.3	192.2	193.7	195.1	196.7	197.1
37.5°	190.9	190.1	189.1	188.8	187.7	188.9	191.0	192.5	193.9	195.3	195.8
38°	189.7	188.8	188.0	187.5	186.5	187.6	189.7	191.1	192.5	194.1	194.5
38.5°	188.3	187.4	186.6	186.1	185.4	186.2	188.3	189.7	191.2	192.8	193.4
39°	186.9	185.8	185.4	184.7	184.1	184.9	186.9	188.3	189.9	191.6	192.0
39.5°	185.7	184.3	183.9	183.1	182.8	183.7	185.5	187.0	188.6	190.4	190.7
40°	184.5	183.0	182.4	181.7	181.5	182.3	184.1	185.8	187.3	189.0	189.6
40.5°	183.3	181.4	180.8	180.1	180.1	181.1	182.7	184.5	186.1	187.6	188.4
41°	181.9	180.1	179.2	178.7	178.7	179.8	181.3	183.3	184.8	186.2	187.1
41.5°	180.6	178.6	177.9	177.3	177.4	178.5	180.0	182.0	183.6	184.7	185.9
42°	179.1	177.3	176.6	176.1	175.8	177.0	178.8	180.8	182.3	183.4	184.6
42.5°	177.7	176.0	175.3	174.7	174.4	175.6	177.6	179.6	181.0	182.1	183.0
43°	176.4	174.4	174.1	173.3	172.7	174.2	176.2	178.3	179.6	180.6	181.7
43.5°	174.9	173.0	172.8	172.0	171.4	172.8	174.7	177.0	178.1	179.2	180.3
44°	173.5	171.9	171.7	170.6	170.0	171.4	173.3	175.6	176.8	177.8	179.0
44.5°	172.2	170.5	170.2	169.2	168.7	170.1	171.9	174.2	175.7	176.5	177.7



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
45°	170.9	169.2	168.8	167.8	167.3	168.7	170.6	172.6	174.3	175.3	176.4
45.5°	169.4	167.8	167.4	166.2	166.1	167.4	169.2	171.2	173.0	173.7	175.1
46°	168.0	166.5	165.9	164.8	164.5	166.1	167.8	169.8	171.5	172.3	173.6
46.5°	166.6	164.9	164.3	163.3	163.2	164.6	166.5	168.5	170.2	171.0	172.2
47°	165.0	163.6	162.7	161.9	161.7	163.1	165.0	167.0	168.8	169.7	171.0
47.5°	163.6	162.1	161.2	160.4	160.4	161.8	163.7	165.5	167.3	168.4	169.5
48°	162.2	160.6	159.7	159.1	158.9	160.4	162.3	164.1	166.0	167.0	167.9
48.5°	160.7	159.1	158.2	157.7	157.5	159.0	161.0	162.7	164.4	165.8	166.5
49°	159.3	157.8	156.8	156.2	156.1	157.5	159.6	161.3	162.8	164.3	165.1
49.5°	157.9	156.3	155.4	154.8	154.8	156.2	158.2	160.0	161.5	162.9	163.7
50°	156.5	154.9	153.9	153.5	153.4	154.7	156.8	158.6	160.1	161.3	162.4
50.5°	155.0	153.4	152.4	152.1	151.9	153.4	155.2	157.3	158.6	160.0	160.8
51°	153.7	152.0	150.9	150.8	150.4	152.0	153.8	155.9	157.2	158.5	159.4
51.5°	152.2	150.6	149.5	149.4	148.9	150.5	152.7	154.4	155.9	157.0	158.1
52°	150.8	149.1	148.2	148.2	147.3	149.1	151.1	152.8	154.4	155.6	156.6
52.5°	149.3	147.6	146.6	146.4	145.6	147.6	149.6	151.3	153.0	154.2	155.1
53°	147.7	146.2	145.4	144.9	144.0	146.0	148.3	149.7	151.5	152.7	153.8
53.5°	146.3	144.6	143.7	143.2	142.6	144.5	146.8	148.3	150.1	151.2	152.5
54°	144.9	143.2	142.3	141.6	141.1	143.0	145.4	146.8	148.5	149.8	151.1
54.5°	143.5	141.7	140.9	140.1	139.6	141.4	143.7	145.4	147.0	148.4	149.6
55°	142.0	140.2	139.5	138.7	138.2	139.9	142.2	144.0	145.6	146.9	148.2
55.5°	140.4	138.7	138.2	137.3	136.6	138.6	140.7	142.6	144.2	145.5	146.7
56°	139.2	137.2	136.6	135.8	135.2	136.9	139.1	141.3	142.9	143.9	145.0
56.5°	137.5	135.9	135.2	134.6	133.9	135.5	137.6	139.9	141.5	142.5	143.5
57°	136.0	134.5	133.7	133.2	132.5	134.2	136.2	138.5	140.2	141.0	141.9
57.5°	134.7	133.1	132.1	131.8	130.9	132.8	134.7	137.0	138.7	139.6	140.5
58°	133.2	131.7	130.5	130.4	129.5	131.4	133.2	135.5	137.4	138.3	139.0
58.5°	131.8	130.2	129.0	129.1	128.0	130.1	131.8	134.1	135.8	136.7	137.6
59°	130.4	128.8	127.5	127.6	126.5	128.6	130.4	132.7	134.3	135.2	136.1
59.5°	128.8	127.1	126.0	126.0	125.1	127.1	128.9	131.1	132.9	133.9	134.5
60°	127.4	125.7	124.6	124.5	123.7	125.5	127.5	129.6	131.3	132.3	133.2
60.5°	125.9	124.2	123.3	122.9	122.3	124.0	126.1	128.1	129.8	130.9	131.8
61°	124.6	122.7	122.0	121.3	120.8	122.6	124.6	126.7	128.5	129.5	130.4
61.5°	122.9	121.3	120.7	119.8	119.4	121.1	123.2	125.2	127.0	128.0	129.0
62°	121.6	119.8	119.3	118.3	118.0	119.5	121.8	123.8	125.5	126.7	127.4
62.5°	120.1	118.4	117.9	116.8	116.5	118.2	120.5	122.4	124.1	125.3	126.0
63°	118.6	117.0	116.3	115.4	115.2	116.7	119.0	121.0	122.6	123.8	124.5
63.5°	117.2	115.6	114.8	113.9	113.6	115.3	117.5	119.5	121.2	122.4	123.0
64°	115.8	114.1	113.1	112.5	112.2	113.7	116.0	118.1	119.8	120.9	121.5
64.5°	114.4	112.9	111.7	111.2	110.9	112.3	114.7	116.7	118.3	119.5	120.2
65°	113.0	111.6	110.1	109.7	109.4	111.0	113.4	115.4	116.9	118.1	118.8
65.5°	111.7	110.1	108.8	108.2	108.0	109.6	112.1	113.8	115.6	116.6	117.3
66°	110.2	108.7	107.3	106.8	106.6	108.1	110.7	112.3	114.0	115.2	115.8
66.5°	108.8	107.3	105.9	105.5	105.3	106.7	109.1	110.9	112.6	113.6	114.3
67°	107.3	106.0	104.5	104.0	103.9	105.3	107.8	109.5	111.3	112.2	112.9





TEST NUMBER: P601032  
 CATALOG NUMBER: FM89S1EWHR\_4000K

**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
67.5°	105.9	104.4	103.2	102.6	102.5	104.0	106.5	108.1	109.8	110.8	111.5
68°	104.5	103.0	101.9	101.2	101.0	102.8	105.0	106.8	108.4	109.5	110.0
68.5°	103.1	101.5	100.6	99.9	99.6	101.4	103.4	105.4	107.0	108.0	108.6
69°	101.7	99.9	99.3	98.5	98.2	99.9	102.0	104.0	105.6	106.6	107.2
69.5°	100.4	98.6	98.2	97.4	96.9	98.5	100.6	102.6	104.2	105.2	105.7
70°	99.0	97.4	96.8	96.2	95.5	97.4	99.3	101.2	102.9	103.9	104.3
70.5°	97.9	96.1	95.5	94.9	94.1	96.1	98.0	99.8	101.8	102.5	103.0
71°	96.6	94.7	94.1	93.5	92.8	94.8	96.9	98.4	100.1	101.2	101.7
71.5°	95.3	93.5	92.7	92.2	91.4	93.4	95.6	97.3	98.7	99.7	100.2
72°	93.9	92.3	91.2	90.9	90.0	92.1	94.2	96.0	97.5	98.5	98.9
72.5°	92.6	91.0	89.9	89.6	88.8	90.7	92.9	94.6	96.2	97.3	97.6
73°	91.3	89.8	88.6	88.1	87.4	89.4	91.6	93.2	94.8	95.9	96.4
73.5°	90.0	88.5	87.3	86.7	86.1	88.1	90.4	92.0	93.6	94.5	95.0
74°	88.8	87.2	86.1	85.5	84.9	86.7	88.9	90.6	92.5	93.1	93.6
74.5°	87.5	86.0	84.8	84.2	83.6	85.4	87.5	89.3	90.9	91.8	92.4
75°	86.2	84.7	83.7	83.0	82.3	84.0	86.1	88.1	89.6	90.5	91.0
75.5°	84.9	83.5	82.5	81.7	81.2	82.8	84.9	86.9	88.3	89.1	89.6
76°	83.8	82.2	81.2	80.5	79.9	81.5	83.7	85.6	87.0	87.8	88.3
76.5°	82.4	80.9	80.0	79.3	78.9	80.3	82.6	84.4	85.8	86.5	87.0
77°	81.2	79.6	78.7	78.1	77.4	79.0	81.3	83.2	84.6	85.3	85.8
77.5°	79.9	78.4	77.4	76.8	76.2	77.9	80.1	82.0	83.5	84.0	84.6
78°	78.7	77.1	76.3	75.7	74.9	76.6	78.9	80.8	82.2	83.0	83.5
78.5°	77.5	75.9	75.0	74.7	73.8	75.3	77.6	79.4	80.9	81.5	82.2
79°	76.4	74.8	73.9	73.4	72.5	74.3	76.2	78.3	79.6	80.3	81.0
79.5°	75.2	73.6	72.6	72.3	71.4	73.1	75.0	77.1	78.5	79.1	79.8
80°	74.0	72.4	71.5	71.2	70.2	71.9	74.2	75.8	77.2	77.8	78.8
80.5°	72.9	71.3	70.4	70.1	69.1	70.7	72.9	74.8	76.0	76.6	77.3
81°	71.8	70.3	69.2	68.9	68.0	69.7	71.7	73.6	74.8	75.4	75.9
81.5°	70.6	69.2	68.1	67.8	66.9	68.6	70.7	72.4	73.7	74.3	74.7
82°	69.4	68.0	67.0	66.7	65.9	67.4	69.6	71.2	72.3	73.1	73.4
82.5°	68.3	67.0	65.9	65.7	64.9	66.3	68.4	70.0	71.2	72.0	72.2
83°	67.1	65.9	64.8	64.5	63.8	65.4	67.3	68.9	70.2	70.8	71.0
83.5°	66.1	64.8	63.8	63.4	62.6	64.2	66.2	67.8	69.0	69.6	69.9
84°	65.0	63.7	62.7	62.2	61.6	63.2	65.1	66.6	67.8	68.5	68.8
84.5°	64.0	62.7	61.7	61.2	60.6	62.1	64.0	65.6	66.8	67.5	67.7
85°	63.0	61.7	60.9	60.3	59.7	61.2	62.9	64.6	65.8	66.4	66.6
85.5°	61.9	60.9	60.0	59.2	58.8	60.5	61.8	63.5	65.0	65.4	65.6
86°	61.2	59.8	58.8	58.3	57.9	59.2	60.9	62.5	63.7	64.5	64.8
86.5°	60.1	58.7	57.8	57.4	56.9	58.2	60.0	61.5	62.7	63.3	63.6
87°	59.1	57.8	57.0	56.6	55.7	57.3	59.2	60.4	61.5	62.3	62.6
87.5°	58.1	56.9	56.0	55.7	54.9	56.2	58.1	59.5	60.7	61.3	61.6
88°	57.2	56.0	55.2	54.8	53.8	55.3	57.0	58.5	59.7	60.5	60.5
88.5°	56.3	55.1	54.2	53.8	52.9	54.5	56.1	57.6	58.9	59.2	59.6
89°	55.4	54.2	53.2	52.9	52.0	53.5	55.1	56.8	57.8	58.2	58.5
89.5°	54.5	53.2	52.4	52.0	51.1	52.4	54.2	55.7	56.9	57.3	57.5



TEST NUMBER: P601032  
 CATALOG NUMBER: FM89S1EWHR\_4000K

**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
90°	53.5	52.4	51.6	51.1	50.2	51.5	53.4	54.8	55.8	56.3	56.6
90.5°	52.7	51.6	50.7	50.2	49.3	50.7	52.5	53.8	54.9	55.4	55.7
91°	51.9	50.6	49.8	49.4	48.6	49.9	51.6	52.9	53.9	54.4	54.7
91.5°	51.0	49.8	49.0	48.5	47.8	49.1	50.7	52.2	53.0	53.5	53.6
92°	50.2	49.0	48.2	47.7	46.9	48.3	50.0	51.2	52.2	52.6	52.7
92.5°	49.4	48.2	47.4	47.1	46.3	47.7	49.1	50.4	51.3	51.7	51.8
93°	48.6	47.4	46.6	46.2	45.4	46.8	48.2	49.8	50.4	51.1	51.0
93.5°	47.7	46.7	45.9	45.4	44.6	46.1	47.5	48.9	49.7	50.2	50.2
94°	47.1	45.9	45.1	44.7	43.8	45.2	46.7	48.1	48.8	49.3	49.3
94.5°	46.3	45.2	44.4	44.0	43.1	44.4	45.9	47.4	48.0	48.6	48.7
95°	45.5	44.5	43.7	43.3	42.4	43.6	45.3	46.5	47.2	47.7	47.8
95.5°	44.8	43.8	42.9	42.7	42.0	43.0	44.4	45.8	46.5	46.9	46.9
96°	44.0	43.0	42.2	41.8	41.0	42.3	43.8	45.1	45.6	46.3	46.4
96.5°	43.3	42.3	41.6	41.2	40.3	41.9	43.1	44.3	44.9	45.3	45.5
97°	42.7	41.6	40.9	40.5	39.7	40.8	42.4	43.4	44.2	44.5	44.6
97.5°	42.0	41.0	40.3	40.0	39.0	40.2	42.2	42.7	43.4	43.7	44.0
98°	41.2	40.4	39.6	39.3	38.5	39.7	41.1	42.0	42.8	43.1	43.2
98.5°	40.6	39.7	39.0	38.6	37.7	39.0	40.4	41.3	42.1	42.4	42.5
99°	39.9	39.2	38.4	38.1	37.4	38.5	39.7	40.8	41.3	42.1	42.0
99.5°	39.3	38.6	37.8	37.4	36.6	37.6	39.0	40.0	40.7	41.0	41.0
100°	38.7	38.0	37.2	36.8	36.1	37.4	38.4	39.4	40.0	40.3	40.4
100.5°	38.1	37.4	36.6	36.2	35.4	36.5	37.7	38.8	39.6	39.7	39.7
101°	37.6	36.9	36.0	35.7	35.0	36.1	37.6	38.2	38.8	39.1	39.1
101.5°	37.0	36.2	35.5	35.1	34.3	35.3	36.6	37.6	38.2	38.5	38.6
102°	36.4	35.7	35.0	34.6	34.0	35.1	36.1	37.0	37.5	37.8	37.8
102.5°	35.9	35.1	34.6	34.1	33.2	34.2	35.4	36.4	37.3	37.2	37.6
103°	35.3	34.6	34.1	33.6	32.7	33.8	35.1	35.8	36.3	36.6	36.6
103.5°	34.8	34.1	33.5	33.1	32.2	33.2	34.4	35.3	35.8	36.2	36.1
104°	34.0	33.6	33.0	32.3	31.7	32.8	34.1	35.0	35.2	35.6	35.5
104.5°	33.7	32.9	32.3	32.1	31.4	32.2	33.3	34.2	34.8	35.1	35.1
105°	33.3	32.6	31.9	31.6	30.9	31.7	32.8	33.9	34.2	34.6	34.4
105.5°	32.7	32.1	31.5	31.2	30.4	31.4	32.3	33.2	33.8	34.0	33.9
106°	32.3	31.7	31.1	30.7	30.0	30.8	31.8	32.8	33.2	33.6	33.4
106.5°	31.9	31.3	30.6	30.3	29.6	30.4	31.6	32.3	32.7	32.9	32.9
107°	31.4	30.8	30.2	30.0	29.3	29.9	30.8	31.8	32.1	32.7	32.7
107.5°	31.0	30.3	29.8	29.5	28.7	29.5	30.5	31.5	31.6	31.9	32.0
108°	30.6	29.9	29.4	29.1	28.4	29.1	30.1	30.8	31.4	31.7	31.7
108.5°	30.2	29.5	29.1	28.8	28.4	28.6	29.6	30.4	30.8	31.2	31.2
109°	29.8	29.2	28.7	28.4	27.7	28.5	29.2	29.9	30.5	30.6	30.7
109.5°	29.4	28.8	28.3	28.0	27.2	28.5	28.8	29.6	29.9	30.4	30.4
110°	29.0	28.4	27.9	27.7	27.1	27.6	28.4	29.3	29.5	29.8	29.9
110.5°	28.7	28.0	27.6	27.4	26.5	27.1	28.4	28.7	29.3	29.3	29.4
111°	28.3	27.7	27.2	26.9	26.2	27.1	28.2	28.4	28.8	29.1	29.4
111.5°	28.0	27.4	26.9	26.7	25.9	26.5	27.3	28.2	28.3	28.6	28.6
112°	27.6	27.0	26.7	26.4	25.9	26.2	27.1	27.8	28.3	28.3	28.3



TEST NUMBER: P601032  
 CATALOG NUMBER: FM89S1EWHR\_4000K

**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
112.5°	27.3	26.7	26.4	26.1	25.3	25.9	26.9	27.3	27.6	28.2	28.3
113°	27.0	26.5	26.1	25.9	25.0	25.8	26.3	27.1	27.1	27.4	27.6
113.5°	26.7	26.2	25.8	25.6	24.8	25.3	26.0	26.6	27.0	27.0	27.1
114°	26.4	25.9	25.5	25.4	24.8	25.0	25.9	25.9	26.5	27.0	26.9
114.5°	26.0	25.7	25.4	25.1	24.2	24.7	25.7	25.9	26.2	26.5	26.7
115°	25.8	25.3	25.1	24.9	23.9	24.6	25.1	26.0	25.8	26.2	26.3
115.5°	25.6	25.1	25.0	24.8	23.8	24.1	24.8	25.3	25.8	25.9	26.0
116°	25.3	24.9	24.8	24.6	23.7	24.0	24.8	25.0	25.3	25.7	26.0
116.5°	25.0	24.9	24.7	24.4	23.7	23.8	24.6	24.7	25.0	25.3	25.6
117°	25.0	24.7	24.5	24.2	23.3	23.8	24.1	24.7	24.8	25.0	25.3
117.5°	24.7	24.5	24.3	24.0	23.1	23.7	24.0	24.2	24.7	24.9	25.0
118°	24.6	24.4	24.1	23.9	23.0	23.5	23.8	24.0	24.5	24.9	24.7
118.5°	24.4	24.2	23.9	23.6	22.8	23.3	23.7	23.9	24.2	24.3	24.6
119°	24.2	24.0	23.8	23.4	22.7	23.0	23.5	23.9	23.9	24.0	24.3
119.5°	24.0	23.9	23.6	23.3	22.6	22.9	23.3	23.8	23.9	23.9	24.0
120°	23.7	23.7	23.5	23.2	22.6	22.9	23.1	23.5	23.7	23.8	23.9
120.5°	23.7	23.6	23.4	23.1	22.6	22.9	22.8	23.1	23.6	23.8	23.9
121°	23.5	23.4	23.2	23.0	22.6	22.8	22.6	23.0	23.2	23.7	23.7
121.5°	23.4	23.3	23.2	23.0	22.6	22.8	22.5	22.7	23.0	23.3	23.7
122°	23.2	23.2	23.1	22.9	22.6	22.7	22.5	22.7	22.9	23.1	23.4
122.5°	23.1	23.1	23.0	22.8	22.6	22.7	22.5	22.6	22.7	23.1	23.2
123°	23.0	23.0	22.9	22.8	22.6	22.7	22.5	22.5	22.5	22.9	23.1
123.5°	23.0	22.9	22.8	22.8	22.8	22.7	22.5	22.5	22.6	22.9	23.1
124°	22.8	22.8	22.7	22.7	22.8	22.7	22.5	22.4	22.5	22.9	23.1
124.5°	22.7	22.6	22.6	22.7	22.8	22.7	22.5	22.3	22.6	22.9	23.0
125°	22.7	22.6	22.6	22.7	22.8	22.7	22.5	22.3	22.6	22.9	23.0
125.5°	22.5	22.6	22.6	22.7	22.9	22.7	22.5	22.3	22.4	22.9	23.0
126°	22.5	22.5	22.4	22.8	23.2	22.7	22.5	22.3	22.4	22.9	23.0
126.5°	22.5	22.5	22.4	22.8	23.3	22.9	22.5	22.3	22.4	22.9	23.0
127°	22.5	22.5	22.4	22.8	23.6	22.9	22.5	22.3	22.4	22.9	23.0
127.5°	22.4	22.4	22.4	22.9	23.9	23.0	22.5	22.3	22.4	22.9	23.0
128°	22.4	22.4	22.4	23.0	24.0	23.1	22.5	22.3	22.4	22.9	23.0
128.5°	22.3	22.4	22.4	22.9	24.1	23.1	22.5	22.3	22.4	23.0	23.0
129°	22.4	22.5	22.4	22.9	24.0	23.2	22.6	22.3	22.4	23.0	23.0
129.5°	22.4	22.5	22.4	22.9	24.1	23.2	22.5	22.3	22.4	23.0	23.1
130°	22.3	22.4	22.4	22.9	24.0	23.2	22.7	22.3	22.4	23.0	23.1
130.5°	22.3	22.4	22.4	22.9	23.9	23.2	22.7	22.3	22.6	23.0	23.1
131°	22.3	22.4	22.4	22.9	23.8	23.2	22.7	22.4	22.7	23.0	23.1
131.5°	22.3	22.4	22.4	22.9	23.8	23.2	22.7	22.4	22.7	23.0	23.2
132°	22.3	22.4	22.4	22.9	23.7	23.2	22.8	22.4	22.8	23.1	23.2
132.5°	22.3	22.4	22.4	22.9	23.3	23.2	22.8	22.4	23.0	23.1	23.2
133°	22.3	22.4	22.4	22.9	23.3	23.2	22.8	22.5	23.0	23.1	23.2
133.5°	22.3	22.5	22.5	22.9	23.3	23.2	22.8	22.7	23.0	23.1	23.3
134°	22.4	22.6	22.5	22.9	23.3	23.4	22.9	22.7	23.0	23.2	23.3
134.5°	22.4	22.5	22.5	22.9	23.3	23.4	23.0	22.7	23.0	23.2	23.4



TEST NUMBER: P601032  
 CATALOG NUMBER: FM89S1EWHR\_4000K

**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
135°	22.5	22.5	22.5	22.9	23.3	23.5	23.0	22.6	23.0	23.4	23.5
135.5°	22.6	22.7	22.6	22.9	23.3	23.5	23.2	22.7	23.0	23.3	23.6
136°	22.6	22.9	22.5	22.9	23.3	23.6	23.3	22.8	23.0	23.3	23.7
136.5°	22.6	23.1	22.6	23.0	23.4	23.7	23.3	22.8	23.0	23.4	23.8
137°	22.6	23.2	22.7	23.0	23.4	23.8	23.5	22.7	23.0	23.4	23.8
137.5°	22.6	23.5	22.7	23.0	23.4	23.8	23.5	22.8	23.1	23.4	23.9
138°	22.7	23.6	22.8	23.1	23.5	23.9	23.6	22.8	23.0	23.4	23.9
138.5°	22.8	23.6	22.9	23.2	23.5	24.0	23.7	22.9	23.0	23.6	23.8
139°	22.9	23.6	23.0	23.4	23.5	24.2	23.8	22.9	23.2	23.6	23.8
139.5°	23.0	23.7	23.1	23.5	23.5	24.1	23.8	22.9	23.2	23.6	23.8
140°	23.2	23.6	23.2	23.6	23.5	24.2	23.9	23.0	23.2	23.7	23.8
140.5°	23.2	23.6	23.5	23.6	23.6	24.3	24.0	23.0	23.4	23.6	23.8
141°	23.2	23.7	23.6	23.8	23.7	24.4	24.1	23.2	23.4	23.6	23.8
141.5°	23.2	23.8	23.7	23.8	23.7	24.5	24.2	23.2	23.5	23.6	23.8
142°	23.3	23.8	23.7	23.9	23.8	24.5	24.3	23.2	23.7	23.6	23.8
142.5°	23.6	23.8	23.9	23.9	23.8	24.6	24.4	23.3	23.7	23.6	23.8
143°	23.6	23.8	23.9	23.9	24.0	24.7	24.5	23.4	23.8	23.6	23.8
143.5°	23.7	23.8	24.0	24.0	24.1	24.8	24.5	23.4	23.8	23.6	23.9
144°	23.8	23.8	24.0	24.1	24.3	24.8	24.6	23.5	23.7	23.6	24.0
144.5°	23.7	23.9	24.2	24.2	24.6	25.0	24.7	23.7	23.8	23.6	24.0
145°	23.8	23.9	24.3	24.7	24.7	24.9	24.9	23.8	23.8	23.6	24.0
145.5°	23.9	23.9	24.5	24.9	24.9	25.0	24.8	24.0	23.8	23.6	24.0
146°	23.9	23.9	24.8	24.9	25.0	25.0	25.0	24.0	23.8	23.7	24.0
146.5°	24.0	23.9	24.8	24.9	25.1	25.2	25.0	24.1	24.0	23.7	24.2
147°	24.0	24.0	24.8	24.9	25.2	25.2	24.9	24.2	24.0	23.9	24.2
147.5°	24.2	24.2	24.8	25.0	25.3	25.2	24.9	24.5	24.1	23.9	24.1
148°	24.3	24.4	24.8	25.0	25.3	25.2	25.0	24.5	24.2	24.0	24.1
148.5°	24.7	24.5	24.9	25.2	25.2	25.2	25.1	24.6	24.3	24.1	24.1
149°	24.8	24.8	24.9	25.3	25.4	25.2	25.2	24.6	24.5	24.2	24.1
149.5°	24.8	24.8	24.9	25.3	25.4	25.2	25.4	24.7	24.5	24.3	24.1
150°	24.8	24.8	25.0	25.8	25.5	25.2	25.6	24.8	24.7	24.4	24.1
150.5°	24.8	24.8	25.0	26.0	25.5	25.2	25.6	24.8	24.8	24.4	24.1
151°	24.9	24.8	25.2	26.0	25.5	25.2	25.8	24.9	24.9	24.4	24.1
151.5°	25.0	24.9	25.3	25.9	25.6	25.2	25.9	24.9	24.9	24.7	24.1
152°	25.1	25.0	25.3	26.0	25.6	25.2	26.0	25.0	24.9	24.7	24.1
152.5°	25.2	25.1	25.3	26.0	25.6	25.2	25.9	24.9	25.0	24.8	24.1
153°	25.3	25.3	25.6	26.0	25.6	25.2	26.0	24.9	25.1	24.9	24.1
153.5°	25.5	25.6	25.9	26.1	25.7	25.3	26.0	25.0	25.3	24.9	24.2
154°	25.8	25.9	26.0	26.2	25.8	25.3	25.8	25.0	25.4	24.9	24.2
154.5°	25.9	25.9	26.0	26.3	25.8	25.3	25.8	25.0	25.5	25.2	24.2
155°	25.9	25.8	26.0	26.4	25.9	25.5	25.7	25.3	25.6	25.3	24.3
155.5°	25.9	25.8	26.0	26.5	26.1	25.6	25.4	25.3	25.7	25.4	24.3
156°	25.9	25.8	26.0	26.7	26.1	25.6	25.3	25.4	25.9	25.4	24.4
156.5°	26.1	25.9	26.0	27.0	26.1	25.6	25.2	25.5	26.1	25.5	24.5
157°	26.1	26.0	26.0	27.1	26.1	25.6	25.1	25.6	26.2	25.6	24.5



TEST NUMBER: P601032  
 CATALOG NUMBER: FM89S1EWHR\_4000K

**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
157.5°	26.1	26.2	26.0	27.2	26.1	25.6	25.1	25.8	26.2	25.7	24.5
158°	26.1	26.2	26.0	27.1	26.1	25.6	25.1	26.0	26.1	25.9	24.6
158.5°	26.1	26.2	26.0	27.1	26.1	25.6	25.0	26.0	26.0	26.0	24.7
159°	26.1	26.2	26.0	27.1	26.1	25.6	25.0	26.0	25.9	26.0	24.8
159.5°	26.1	26.2	26.0	27.2	26.1	25.6	25.0	26.0	25.9	26.0	24.9
160°	26.1	26.2	26.0	27.1	26.1	25.7	24.9	25.9	25.9	26.0	25.0
160.5°	26.1	26.2	26.1	27.2	26.1	25.7	24.9	26.0	25.9	26.0	24.9
161°	26.1	26.2	26.0	27.1	26.0	25.5	25.0	25.8	25.9	26.0	24.9
161.5°	26.2	26.1	26.0	26.6	25.6	25.4	24.8	25.9	25.8	25.7	24.9
162°	26.1	25.9	25.6	26.1	25.2	25.1	24.7	25.8	25.4	25.2	24.8
162.5°	26.1	25.5	25.3	25.7	24.8	24.8	24.4	25.3	25.0	24.6	24.8
163°	25.6	25.2	25.0	25.2	24.5	24.6	24.0	24.8	24.7	24.2	24.5
163.5°	25.3	24.9	24.7	24.9	24.0	24.0	23.8	24.4	24.7	23.9	24.0
164°	25.0	24.5	24.3	24.6	23.8	23.8	23.6	23.9	24.0	23.7	23.7
164.5°	24.6	24.1	23.9	24.2	23.5	23.5	23.0	23.7	23.8	23.6	23.2
165°	24.2	23.6	23.5	23.8	23.0	23.0	22.6	23.2	23.4	23.3	22.8
165.5°	23.8	23.2	23.2	23.5	22.6	22.8	22.5	22.8	22.8	23.1	22.5
166°	23.3	22.9	22.9	23.1	22.4	22.4	21.8	22.5	22.4	22.8	22.2
166.5°	23.0	22.6	22.6	22.7	21.9	22.0	21.4	22.2	22.0	22.6	21.7
167°	22.5	22.3	22.2	22.3	21.5	21.5	21.1	21.7	21.7	22.5	21.5
167.5°	22.2	21.9	21.8	21.9	21.2	21.2	20.5	21.3	21.3	21.8	21.4
168°	21.9	21.5	21.4	21.4	20.8	20.8	20.2	21.1	21.2	21.3	21.1
168.5°	21.5	21.1	21.1	21.0	20.4	20.4	20.1	20.5	20.7	20.8	20.7
169°	21.2	20.8	20.6	20.6	20.1	20.2	19.6	20.1	20.4	20.4	20.3
169.5°	20.9	20.4	20.2	20.1	19.6	19.7	19.2	19.7	20.1	20.2	20.2
170°	20.3	20.0	19.9	19.7	19.2	19.3	19.3	19.2	19.8	19.4	19.5
170.5°	19.9	19.8	19.5	19.2	19.1	19.2	19.2	18.9	19.2	19.2	19.2
171°	19.6	19.4	19.2	18.9	18.3	18.9	18.2	18.3	19.0	19.3	19.0
171.5°	19.1	19.0	18.8	18.5	17.8	17.9	17.9	17.9	18.3	18.3	18.3
172°	18.8	18.6	18.4	18.0	17.3	17.3	17.6	17.6	17.8	17.8	17.8
172.5°	18.4	18.1	17.9	17.6	16.7	16.8	17.1	17.1	17.3	17.6	17.4
173°	17.9	17.7	17.4	17.1	15.9	16.1	16.8	16.7	16.9	17.1	16.9
173.5°	17.4	17.2	16.9	16.5	15.5	15.4	16.3	16.5	16.6	16.7	16.7
174°	16.9	16.6	16.3	15.9	14.5	14.7	15.6	15.9	15.9	16.1	16.1
174.5°	16.3	16.1	15.7	15.3	14.0	14.2	14.9	15.5	15.5	15.7	15.5
175°	15.8	15.6	15.1	14.5	13.3	13.5	14.3	14.8	14.8	15.2	14.8
175.5°	15.2	15.0	14.4	13.7	12.7	13.0	13.2	14.2	14.2	14.4	14.3
176°	14.5	14.2	13.7	13.0	12.1	12.3	12.3	13.3	13.6	13.7	13.6
176.5°	14.0	13.5	12.9	12.4	11.4	11.6	11.7	12.4	13.2	13.2	13.0
177°	13.3	12.9	12.3	11.9	11.1	11.1	11.1	11.5	12.2	12.4	12.0
177.5°	13.2	12.9	12.3	11.8	10.9	11.0	11.1	11.2	11.7	11.7	11.4
178°	14.0	13.9	13.5	13.3	11.5	11.2	11.2	11.3	11.7	11.7	11.5
178.5°	14.5	14.7	14.7	14.5	12.8	12.2	12.3	12.3	12.4	12.5	12.1
179°	14.6	15.0	15.3	15.3	14.2	13.8	13.9	13.9	13.8	13.7	13.2
179.5°	14.6	15.2	15.6	15.8	14.6	14.4	14.5	14.6	14.5	14.5	14.4



TEST NUMBER: P601032  
CATALOG NUMBER: FM89S1EWHR\_4000K

**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
180°	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6



TEST NUMBER: P601032  
 CATALOG NUMBER: FM89S1EWHR\_4000K

**CANDELA DISTRIBUTION (continued):**

	247.5°	270°	292.5°	315°	337.5°	360°
0°	244.9	244.9	244.9	244.9	244.9	244.9
0.5°	244.8	245.0	244.9	245.1	244.9	244.9
1°	244.6	245.1	244.9	245.0	244.9	244.9
1.5°	244.5	245.1	244.9	245.0	244.9	244.9
2°	244.5	245.1	244.9	245.0	244.9	245.0
2.5°	244.6	245.1	244.9	245.0	245.0	244.9
3°	244.6	245.1	244.9	245.1	244.9	244.9
3.5°	244.5	245.1	245.0	245.1	244.8	244.6
4°	244.4	245.1	245.0	244.9	244.5	244.4
4.5°	244.2	245.1	244.9	244.7	244.3	244.2
5°	243.9	244.9	244.9	244.6	244.1	244.0
5.5°	243.8	244.9	244.9	244.6	244.0	243.8
6°	243.5	244.7	244.9	244.4	243.8	243.6
6.5°	243.4	244.6	244.9	244.3	243.7	243.4
7°	243.3	244.3	244.7	244.2	243.4	243.3
7.5°	243.3	244.1	244.6	244.0	243.1	243.3
8°	243.2	243.7	244.3	243.8	243.0	243.1
8.5°	243.2	243.5	243.8	243.5	242.7	242.7
9°	242.9	243.3	243.3	243.1	242.3	242.3
9.5°	242.6	243.0	242.7	242.4	242.0	241.9
10°	242.2	242.6	242.2	241.9	241.6	241.4
10.5°	242.0	242.3	241.9	241.4	241.2	241.0
11°	241.2	242.1	241.5	241.0	240.7	240.6
11.5°	240.8	241.7	241.1	240.7	240.2	239.9
12°	240.3	241.3	240.7	240.2	239.5	239.2
12.5°	239.9	240.8	240.2	239.7	239.0	238.5
13°	239.9	240.3	239.9	239.3	238.4	238.0
13.5°	239.8	239.8	239.4	238.7	237.9	237.5
14°	239.1	239.4	238.9	238.2	237.4	236.9
14.5°	238.8	238.8	238.4	237.8	236.7	236.4
15°	238.5	238.3	237.7	237.5	236.2	235.8
15.5°	237.8	237.7	237.2	237.2	235.6	235.4
16°	237.1	237.2	236.7	236.6	235.1	235.0
16.5°	236.2	236.7	236.1	236.1	234.4	234.4
17°	235.5	236.0	235.5	235.4	233.8	233.8
17.5°	234.6	235.5	235.0	234.8	233.1	233.1
18°	233.9	235.0	234.3	234.0	232.5	232.4
18.5°	233.1	234.4	233.8	233.2	231.8	231.5
19°	232.6	233.8	233.2	232.4	231.0	230.5
19.5°	231.8	233.0	232.7	231.4	230.2	229.5
20°	231.0	232.2	232.0	230.5	229.4	228.6
20.5°	230.7	231.5	231.2	229.6	228.6	227.7
21°	229.5	230.7	230.4	228.8	227.7	226.9
21.5°	228.7	229.8	229.4	228.0	227.0	226.0
22°	228.0	229.0	228.5	227.1	226.1	225.0



TEST NUMBER: P601032  
 CATALOG NUMBER: FM89S1EWHR\_4000K

**CANDELA DISTRIBUTION (continued):**

	247.5°	270°	292.5°	315°	337.5°	360°
22.5°	227.1	228.2	227.5	226.4	225.2	224.1
23°	226.2	227.4	226.5	225.5	224.3	223.3
23.5°	225.5	226.5	225.7	224.6	223.4	222.4
24°	224.6	225.7	224.8	223.8	222.5	221.6
24.5°	223.6	224.9	223.9	222.9	221.6	220.6
25°	222.7	224.0	223.1	221.9	220.8	219.7
25.5°	222.0	223.1	222.3	221.0	220.1	218.7
26°	221.3	222.3	221.2	219.9	219.2	217.6
26.5°	220.3	221.2	220.2	219.0	218.3	216.6
27°	219.5	220.3	219.4	218.0	217.5	215.5
27.5°	218.7	219.4	218.7	217.0	216.4	214.4
28°	217.7	218.4	217.8	215.9	215.2	213.4
28.5°	216.8	217.5	216.9	214.9	214.0	212.4
29°	215.7	216.5	215.8	213.9	212.7	211.3
29.5°	214.6	215.6	214.6	213.0	211.4	210.3
30°	213.4	214.6	213.3	211.8	210.0	209.3
30.5°	212.1	213.6	212.1	210.6	209.0	208.3
31°	211.1	212.6	210.8	209.5	207.9	207.0
31.5°	209.9	211.5	209.6	208.7	206.8	205.7
32°	208.8	210.2	208.6	207.5	205.6	204.5
32.5°	207.8	209.1	207.4	206.5	204.5	203.3
33°	206.7	207.9	206.3	205.4	203.4	202.1
33.5°	205.5	206.7	205.2	204.4	202.3	200.9
34°	204.2	205.5	204.0	203.1	201.0	199.6
34.5°	203.1	204.3	202.9	201.7	199.8	198.4
35°	201.9	203.0	201.7	200.3	198.6	197.2
35.5°	200.7	201.8	200.7	198.9	197.3	195.9
36°	199.5	200.5	199.5	197.7	196.0	194.7
36.5°	198.4	199.4	198.5	196.4	194.8	193.4
37°	197.2	198.2	197.3	195.2	193.5	192.1
37.5°	196.0	197.1	196.1	193.8	192.3	190.9
38°	194.7	195.9	194.9	192.6	191.1	189.7
38.5°	193.4	194.6	193.5	191.3	189.8	188.3
39°	192.0	193.2	192.0	190.2	188.6	186.9
39.5°	190.7	191.8	190.7	188.7	187.4	185.7
40°	189.4	190.4	189.3	187.5	186.1	184.5
40.5°	188.1	189.1	188.1	186.2	184.8	183.3
41°	186.9	187.8	186.7	184.7	183.4	181.9
41.5°	185.7	186.6	185.4	183.4	182.2	180.6
42°	184.6	185.5	183.9	182.0	180.7	179.1
42.5°	183.2	184.2	182.6	180.7	179.2	177.7
43°	181.8	183.0	181.3	179.3	177.7	176.4
43.5°	180.5	181.7	180.1	177.8	176.3	174.9
44°	179.0	180.4	178.7	176.7	174.9	173.5
44.5°	177.5	179.1	177.4	175.3	173.5	172.2





TEST NUMBER: P601032  
 CATALOG NUMBER: FM89S1EWHR\_4000K

**CANDELA DISTRIBUTION (continued):**

	247.5°	270°	292.5°	315°	337.5°	360°
45°	176.2	177.7	176.0	174.0	172.2	170.9
45.5°	174.8	176.3	174.5	172.6	170.9	169.4
46°	173.3	174.8	173.0	171.4	169.5	168.0
46.5°	171.9	173.3	171.8	169.8	168.0	166.6
47°	170.9	172.0	170.2	168.4	166.6	165.0
47.5°	169.6	170.5	168.8	167.1	165.2	163.6
48°	168.2	168.9	167.4	165.8	163.9	162.2
48.5°	166.9	167.5	166.0	164.5	162.5	160.7
49°	165.6	166.2	164.6	163.2	161.1	159.3
49.5°	164.2	164.8	163.1	161.8	159.6	157.9
50°	162.8	163.3	161.6	160.2	158.2	156.5
50.5°	161.4	161.8	160.2	158.7	156.7	155.0
51°	160.0	160.3	158.8	157.2	155.2	153.7
51.5°	158.4	158.9	157.6	155.6	153.8	152.2
52°	156.8	157.6	156.1	154.1	152.3	150.8
52.5°	155.2	156.1	154.6	152.5	151.0	149.3
53°	153.6	154.8	153.3	151.2	149.5	147.7
53.5°	152.3	153.4	151.9	149.8	148.0	146.3
54°	150.7	152.1	150.4	148.3	146.5	144.9
54.5°	149.2	150.5	149.0	146.9	145.0	143.5
55°	147.8	149.2	147.6	145.5	143.5	142.0
55.5°	146.3	147.6	146.1	144.2	142.0	140.4
56°	144.8	146.0	144.5	142.9	140.6	139.2
56.5°	143.4	144.4	142.9	141.6	139.2	137.5
57°	141.9	142.9	141.4	140.1	137.8	136.0
57.5°	140.5	141.2	139.7	138.6	136.3	134.7
58°	139.0	139.7	138.2	137.1	135.0	133.2
58.5°	137.5	138.2	136.7	135.5	133.5	131.8
59°	136.0	136.8	135.3	134.0	132.0	130.4
59.5°	134.6	135.4	133.9	132.5	130.5	128.8
60°	133.2	134.0	132.6	131.0	129.1	127.4
60.5°	131.7	132.8	131.2	129.6	127.7	125.9
61°	130.2	131.5	129.7	128.1	126.3	124.6
61.5°	128.8	130.3	128.4	126.7	124.9	122.9
62°	127.3	128.7	126.9	125.2	123.5	121.6
62.5°	125.8	127.1	125.4	123.7	122.1	120.1
63°	124.5	125.6	123.9	122.4	120.8	118.6
63.5°	123.0	124.0	122.5	120.8	119.5	117.2
64°	121.5	122.5	121.1	119.5	117.9	115.8
64.5°	120.1	121.1	119.6	118.0	116.4	114.4
65°	118.7	119.4	118.1	116.7	114.9	113.0
65.5°	117.0	117.9	116.5	115.3	113.5	111.7
66°	115.6	116.5	115.1	114.0	112.1	110.2
66.5°	114.2	114.9	113.7	112.6	110.7	108.8
67°	112.7	113.5	112.3	111.1	109.1	107.3



TEST NUMBER: P601032  
 CATALOG NUMBER: FM89S1EWHR\_4000K

**CANDELA DISTRIBUTION (continued):**

	247.5°	270°	292.5°	315°	337.5°	360°
67.5°	111.3	112.1	110.9	109.7	107.7	105.9
68°	109.9	110.7	109.6	108.2	106.3	104.5
68.5°	108.4	109.3	108.3	106.8	104.9	103.1
69°	107.0	107.8	106.9	105.3	103.4	101.7
69.5°	105.5	106.4	105.5	103.9	102.0	100.4
70°	104.2	105.1	104.1	102.4	100.6	99.0
70.5°	102.9	103.7	102.6	100.9	99.3	97.9
71°	101.6	102.3	101.2	99.6	98.2	96.6
71.5°	100.0	100.8	99.7	98.5	96.8	95.3
72°	98.6	99.5	98.4	97.2	95.4	93.9
72.5°	97.4	98.3	97.1	95.8	94.1	92.6
73°	96.0	96.9	95.7	94.6	92.8	91.3
73.5°	94.7	95.5	94.4	93.2	91.5	90.0
74°	93.4	94.2	93.1	91.9	90.3	88.8
74.5°	92.2	92.8	91.7	90.6	88.9	87.5
75°	90.9	91.5	90.4	89.2	87.7	86.2
75.5°	89.6	90.2	89.1	88.0	86.5	84.9
76°	88.2	88.9	87.8	86.7	85.2	83.8
76.5°	86.8	87.5	86.5	85.4	84.0	82.4
77°	85.6	86.2	85.2	84.2	82.8	81.2
77.5°	84.3	85.0	84.2	82.9	81.5	79.9
78°	83.3	83.8	82.7	81.7	80.2	78.7
78.5°	81.9	82.4	81.5	80.4	79.0	77.5
79°	80.6	81.2	80.3	79.5	77.7	76.4
79.5°	79.4	80.0	79.0	78.2	76.6	75.2
80°	78.4	78.6	77.8	77.0	75.4	74.0
80.5°	77.0	77.5	76.6	75.7	74.2	72.9
81°	75.7	76.4	75.5	74.6	73.0	71.8
81.5°	74.4	75.2	74.4	73.4	71.9	70.6
82°	73.1	74.1	73.2	72.2	70.8	69.4
82.5°	71.9	72.8	72.0	71.0	69.7	68.3
83°	70.8	71.6	71.0	69.9	68.6	67.1
83.5°	69.5	70.5	69.9	68.8	67.5	66.1
84°	68.5	69.4	68.8	67.7	66.5	65.0
84.5°	67.3	68.2	67.7	66.7	65.4	64.0
85°	66.2	67.1	66.5	65.7	64.3	63.0
85.5°	65.1	66.0	65.6	64.7	63.4	61.9
86°	64.1	64.9	64.4	63.7	62.3	61.2
86.5°	63.1	63.9	63.3	62.7	61.4	60.1
87°	62.0	62.8	62.3	61.7	60.4	59.1
87.5°	61.1	61.8	61.4	60.9	59.5	58.1
88°	60.3	61.0	60.4	59.9	58.5	57.2
88.5°	59.2	60.0	59.4	58.9	57.6	56.3
89°	58.0	59.0	58.4	57.9	56.7	55.4
89.5°	57.1	58.1	57.4	56.9	55.8	54.5



TEST NUMBER: P601032  
 CATALOG NUMBER: FM89S1EWHR\_4000K

**CANDELA DISTRIBUTION (continued):**

	247.5°	270°	292.5°	315°	337.5°	360°
90°	56.0	57.1	56.5	55.9	54.9	53.5
90.5°	55.1	56.3	55.5	55.0	54.0	52.7
91°	54.2	55.4	54.6	54.1	53.2	51.9
91.5°	53.4	54.4	53.7	53.2	52.2	51.0
92°	52.3	53.5	52.9	52.3	51.3	50.2
92.5°	51.5	52.5	52.0	51.5	50.5	49.4
93°	50.8	51.6	51.1	50.7	49.7	48.6
93.5°	50.0	50.9	50.2	49.8	48.9	47.7
94°	49.0	50.0	49.5	49.0	48.1	47.1
94.5°	48.2	49.2	48.7	48.2	47.3	46.3
95°	47.6	48.4	47.9	47.4	46.5	45.5
95.5°	46.7	47.6	47.3	46.6	45.8	44.8
96°	46.0	46.7	46.4	45.9	45.1	44.0
96.5°	45.4	46.0	45.7	45.2	44.5	43.3
97°	44.4	45.2	45.0	44.5	43.8	42.7
97.5°	43.6	44.5	44.2	43.8	43.1	42.0
98°	43.0	43.9	43.5	43.0	42.5	41.2
98.5°	42.1	43.2	42.7	42.6	41.7	40.6
99°	41.8	42.7	42.1	41.8	41.1	39.9
99.5°	40.8	41.8	41.4	41.2	40.4	39.3
100°	40.1	41.2	40.8	40.5	39.8	38.7
100.5°	39.5	40.6	40.1	39.8	39.1	38.1
101°	38.8	39.9	39.4	39.2	38.5	37.6
101.5°	38.2	39.3	38.9	38.6	37.9	37.0
102°	37.5	38.5	38.3	38.0	37.3	36.4
102.5°	37.2	38.0	37.8	37.4	36.8	35.9
103°	36.4	37.4	37.1	36.9	36.2	35.3
103.5°	36.0	36.9	36.3	36.4	35.7	34.8
104°	35.3	36.3	35.8	35.4	34.8	34.0
104.5°	34.8	35.7	35.5	35.2	34.7	33.7
105°	34.2	35.2	35.0	34.8	34.1	33.3
105.5°	33.9	34.7	34.5	34.3	33.6	32.7
106°	33.3	33.8	34.0	33.8	33.2	32.3
106.5°	32.7	33.6	33.6	33.4	32.7	31.9
107°	32.3	33.3	33.0	32.8	32.2	31.4
107.5°	31.8	32.8	32.6	32.4	31.8	31.0
108°	31.5	32.3	32.2	31.9	31.3	30.6
108.5°	31.0	31.9	31.6	31.5	30.9	30.2
109°	30.5	31.5	31.2	31.1	30.5	29.8
109.5°	30.2	31.0	30.8	30.6	30.1	29.4
110°	29.7	30.6	30.4	30.2	29.7	29.0
110.5°	29.3	30.3	30.1	29.8	29.3	28.7
111°	29.2	29.9	29.7	29.4	28.9	28.3
111.5°	28.5	29.5	29.2	29.1	28.6	28.0
112°	28.2	29.2	29.0	28.8	28.3	27.6



TEST NUMBER: P601032  
 CATALOG NUMBER: FM89S1EWHR\_4000K

**CANDELA DISTRIBUTION (continued):**

	247.5°	270°	292.5°	315°	337.5°	360°
112.5°	28.2	28.9	28.6	28.4	27.9	27.3
113°	27.5	28.5	28.3	28.1	27.6	27.0
113.5°	27.2	28.2	27.9	27.8	27.4	26.7
114°	26.9	27.9	27.6	27.5	27.1	26.4
114.5°	26.6	27.6	27.3	27.2	26.7	26.0
115°	26.2	27.2	27.0	26.9	26.4	25.8
115.5°	25.9	26.9	26.7	26.6	26.1	25.6
116°	25.7	26.7	26.5	26.3	25.9	25.3
116.5°	25.4	26.4	26.2	26.1	25.6	25.0
117°	25.1	26.1	26.0	25.8	25.4	25.0
117.5°	24.8	25.8	25.8	25.6	25.1	24.7
118°	24.7	25.7	25.5	25.4	25.0	24.6
118.5°	24.5	25.5	25.3	25.2	24.9	24.4
119°	24.1	25.3	25.1	24.9	24.7	24.2
119.5°	23.9	25.1	24.9	24.9	24.5	24.0
120°	23.9	25.0	24.9	24.8	24.3	23.7
120.5°	23.8	24.9	24.8	24.6	24.2	23.7
121°	23.8	24.8	24.6	24.4	24.0	23.5
121.5°	23.6	24.6	24.5	24.3	23.9	23.4
122°	23.4	24.5	24.4	24.1	23.7	23.2
122.5°	23.1	24.3	24.3	24.0	23.5	23.1
123°	23.1	24.3	24.2	23.9	23.5	23.0
123.5°	23.2	24.1	24.0	23.8	23.4	23.0
124°	23.1	24.0	24.0	23.6	23.2	22.8
124.5°	23.1	24.0	23.9	23.6	23.2	22.7
125°	23.1	23.8	23.8	23.5	23.1	22.7
125.5°	23.1	23.7	23.8	23.4	23.2	22.5
126°	23.1	23.7	23.8	23.4	23.0	22.5
126.5°	23.1	23.7	23.8	23.3	22.9	22.5
127°	23.1	23.7	23.8	23.3	22.8	22.5
127.5°	23.1	23.6	23.8	23.2	22.8	22.4
128°	23.1	23.6	23.8	23.2	22.8	22.4
128.5°	23.2	23.6	23.8	23.3	22.8	22.3
129°	23.1	23.6	23.8	23.2	22.8	22.4
129.5°	23.1	23.6	23.8	23.2	22.8	22.4
130°	23.3	23.6	23.8	23.2	22.8	22.3
130.5°	23.3	23.6	23.8	23.2	22.8	22.3
131°	23.2	23.7	23.8	23.2	22.8	22.3
131.5°	23.2	23.7	23.8	23.2	22.9	22.3
132°	23.3	23.7	23.8	23.2	22.8	22.3
132.5°	23.3	23.8	23.8	23.2	22.8	22.3
133°	23.3	23.8	23.8	23.2	23.1	22.3
133.5°	23.3	23.8	23.8	23.2	23.2	22.3
134°	23.4	23.8	23.8	23.2	23.5	22.4
134.5°	23.3	23.9	23.8	23.2	23.7	22.4



TEST NUMBER: P601032  
 CATALOG NUMBER: FM89S1EWHR\_4000K

**CANDELA DISTRIBUTION (continued):**

	247.5°	270°	292.5°	315°	337.5°	360°
135°	23.3	23.9	23.8	23.2	23.8	22.5
135.5°	23.4	23.8	23.8	23.2	24.0	22.6
136°	23.5	23.8	23.8	23.2	24.0	22.6
136.5°	23.5	23.8	23.8	23.2	23.9	22.6
137°	23.6	24.0	23.8	23.3	23.9	22.6
137.5°	23.7	24.0	23.8	23.5	23.9	22.6
138°	23.9	24.0	23.8	23.7	23.9	22.7
138.5°	23.8	24.0	23.8	23.8	23.9	22.8
139°	23.9	24.0	23.8	23.8	23.9	22.9
139.5°	24.0	24.1	23.8	23.8	23.9	23.0
140°	24.1	24.2	23.9	23.8	23.9	23.2
140.5°	24.1	24.5	23.9	23.9	23.9	23.2
141°	24.3	24.8	23.9	23.9	23.9	23.2
141.5°	24.2	25.0	24.0	23.9	23.9	23.2
142°	24.2	24.9	23.9	23.9	23.9	23.3
142.5°	24.2	24.9	24.0	24.0	23.9	23.6
143°	24.2	24.9	24.0	24.1	23.9	23.6
143.5°	24.2	24.9	24.3	24.1	24.0	23.7
144°	24.2	24.9	24.4	24.5	24.0	23.8
144.5°	24.3	24.9	24.6	24.7	24.0	23.7
145°	24.3	24.9	24.8	24.9	24.0	23.8
145.5°	24.3	24.9	24.8	24.9	24.2	23.9
146°	24.4	24.9	24.8	24.9	24.5	23.9
146.5°	24.4	24.9	24.8	24.9	24.7	24.0
147°	24.5	24.9	24.8	24.9	24.8	24.0
147.5°	24.4	24.9	24.9	25.1	25.0	24.2
148°	24.6	24.9	24.9	25.1	24.9	24.3
148.5°	24.6	24.9	25.0	25.3	24.9	24.7
149°	24.6	25.0	25.0	25.6	25.0	24.8
149.5°	24.7	25.0	25.2	25.7	25.0	24.8
150°	24.7	25.1	25.2	25.9	25.0	24.8
150.5°	24.8	25.3	25.1	25.9	25.0	24.8
151°	24.8	25.6	25.1	25.9	25.0	24.9
151.5°	24.8	25.8	25.1	25.9	25.1	25.0
152°	24.8	26.0	25.2	26.0	25.2	25.1
152.5°	24.8	26.0	25.2	26.0	25.3	25.2
153°	24.9	26.1	25.2	26.0	25.3	25.3
153.5°	24.9	26.0	25.4	26.1	25.4	25.5
154°	24.7	26.0	25.8	26.1	25.8	25.8
154.5°	24.7	26.1	25.9	26.1	26.0	25.9
155°	24.7	26.2	26.1	26.1	26.0	25.9
155.5°	24.7	26.3	26.3	26.1	26.0	25.9
156°	24.5	26.5	26.6	26.1	26.0	25.9
156.5°	24.5	26.6	26.9	26.1	26.1	26.1
157°	24.3	27.0	27.2	26.1	26.0	26.1



TEST NUMBER: P601032  
 CATALOG NUMBER: FM89S1EWHR\_4000K

**CANDELA DISTRIBUTION (continued):**

	247.5°	270°	292.5°	315°	337.5°	360°
157.5°	24.1	27.1	27.2	26.1	26.2	26.1
158°	24.0	27.1	27.1	26.1	26.2	26.1
158.5°	23.9	27.1	27.1	26.1	26.1	26.1
159°	23.9	27.1	27.2	26.2	26.1	26.1
159.5°	23.9	27.1	27.3	26.4	26.1	26.1
160°	23.8	27.1	27.4	26.5	26.1	26.1
160.5°	23.8	27.1	27.5	26.8	26.1	26.1
161°	23.8	27.2	27.5	26.8	26.1	26.1
161.5°	23.8	27.2	27.4	26.7	26.1	26.2
162°	23.8	27.1	27.5	26.7	26.1	26.1
162.5°	23.7	26.8	27.2	26.6	26.1	26.1
163°	23.6	26.4	26.7	26.1	25.8	25.6
163.5°	23.2	26.1	26.3	25.8	25.5	25.3
164°	22.9	25.8	25.8	25.3	25.0	25.0
164.5°	22.4	25.5	25.4	24.9	24.8	24.6
165°	22.1	24.9	24.9	24.7	24.3	24.2
165.5°	21.7	24.6	24.7	24.3	24.0	23.8
166°	21.4	24.1	24.2	23.8	23.6	23.3
166.5°	21.1	23.6	23.7	23.5	23.2	23.0
167°	20.6	23.2	23.3	23.0	22.8	22.5
167.5°	20.2	22.8	22.8	22.6	22.4	22.2
168°	20.0	22.4	22.4	22.2	22.0	21.9
168.5°	19.6	22.0	22.0	21.8	21.7	21.5
169°	19.3	21.5	21.5	21.4	21.3	21.2
169.5°	19.0	21.2	21.1	21.1	20.9	20.9
170°	19.0	20.7	20.7	20.8	20.6	20.3
170.5°	18.2	20.2	20.3	20.4	20.2	19.9
171°	17.8	19.7	19.9	20.0	19.9	19.6
171.5°	17.6	19.2	19.5	19.6	19.6	19.1
172°	17.0	18.6	19.0	19.2	19.1	18.8
172.5°	16.6	18.0	18.6	18.8	18.6	18.4
173°	16.3	17.4	17.9	18.3	18.2	17.9
173.5°	15.7	16.7	17.1	17.7	17.7	17.4
174°	15.4	16.2	16.5	17.1	17.2	16.9
174.5°	14.7	15.6	15.9	16.3	16.5	16.3
175°	14.3	15.1	15.2	15.7	15.9	15.8
175.5°	13.6	14.6	14.7	14.8	15.3	15.2
176°	13.0	14.1	13.9	14.2	14.7	14.5
176.5°	12.3	13.5	13.2	13.6	14.0	14.0
177°	11.6	12.8	12.7	12.9	13.3	13.3
177.5°	11.1	12.6	12.5	12.5	13.2	13.2
178°	11.1	12.9	12.5	12.5	13.4	14.0
178.5°	11.5	14.1	13.3	13.4	14.2	14.5
179°	13.0	14.3	13.9	14.3	14.4	14.6
179.5°	14.6	14.4	14.4	14.6	14.5	14.6



TEST NUMBER: P601032  
CATALOG NUMBER: FM89S1EWHR\_4000K

**CANDELA DISTRIBUTION (continued):**

	247.5°	270°	292.5°	315°	337.5°	360°
180°	14.6	14.6	14.6	14.6	14.6	14.6

(END OF REPORT)