

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: HALO

Report Number: P1431927

Luminaire Tested: **HSLBKMW-4000K**

Issue Date: 3/16/2026



**Test Information**

Test Method: LM-79-08  
Report Number: P1431927  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA ( UTU2511015E-B)  
Test Lab: INNOVATION CENTER  
Issue Date: 3/16/2026  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: HALO  
Catalog Number: HSLBKMW-4000K  
Description: Marker (Default)  
  
Light Source:  
Ballast/Driver: ELECTRONIC DRIVER

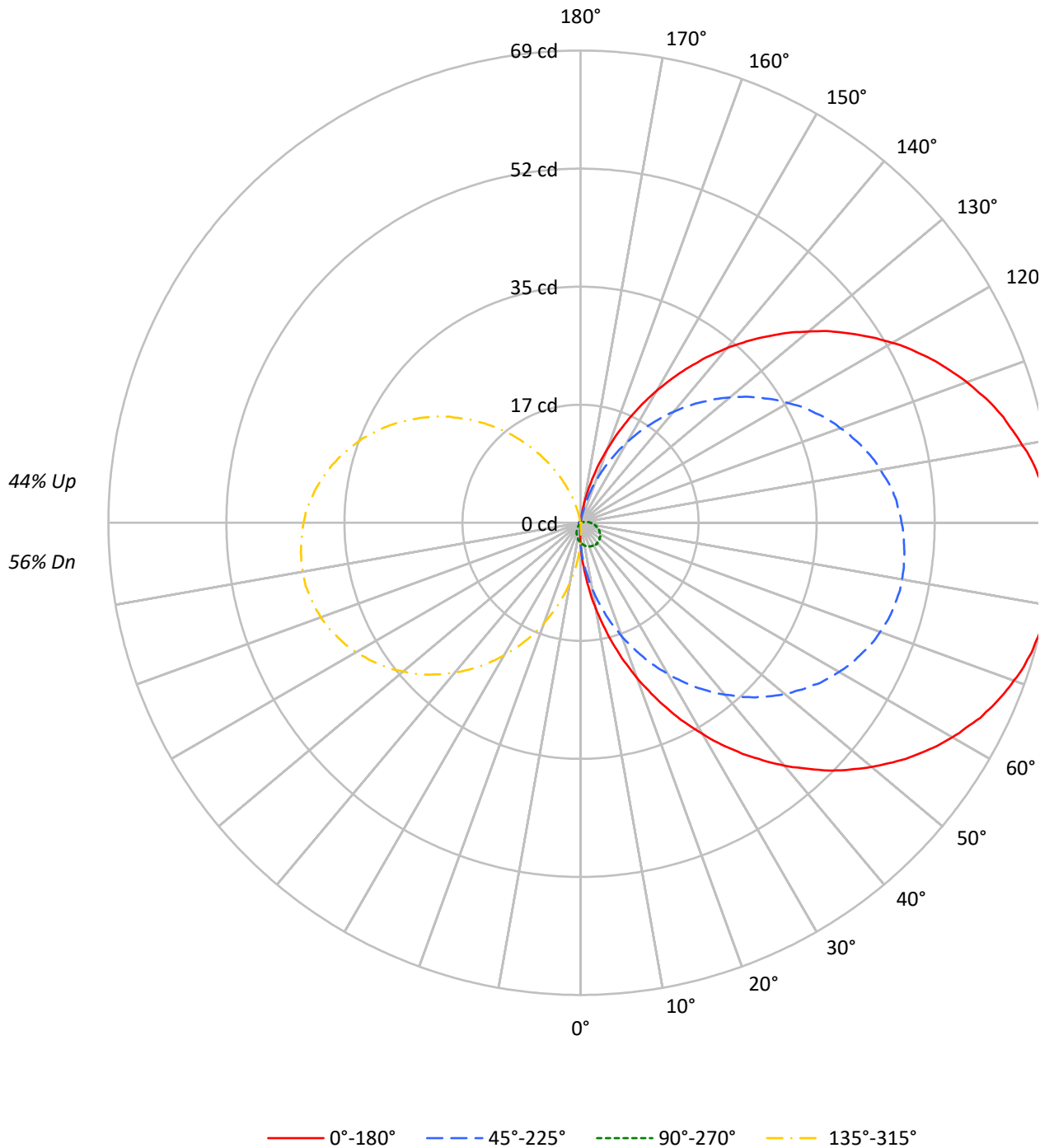
**Summary**

Lumens per Lamp: 175.6 (1 lamp)  
Luminaire Lumens: 190.0 lumens  
Efficiency: 108.2%  
Efficacy: 48.7 lumens/watt  
Spacing Criteria (0/90/45): 5.34 / 1.22 / 4.17  
Luminous Opening: Rectangular (W 0.32' x L: 0.76' x H: 0')  
CIE Type: General Diffuse

Input Watts (W): 3.9  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: >0.9  
Total Harmonic Distortion (THDi): <20  
Frequency (hertz): 60  
Stabilization Time: HR  
Operation Time: HR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT

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### Luminous Intensity Polar Plot

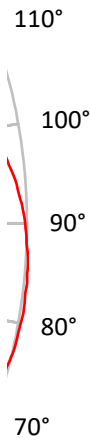




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**COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:**

	RF	20		20		20		20		20		20		20		20		
	RC	80		70		50		30		10		50		30		10		
	RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10
	RCR																	
0°	0	117	117	117	117	109	109	109	109	94	94	94	79	79	79	66	66	66
	1	101	93	86	80	93	86	80	74	72	68	63	60	56	53	48	46	43
	2	89	78	68	60	81	71	63	56	60	53	47	49	44	39	39	35	31
	3	80	66	56	47	73	61	51	44	50	43	37	41	35	30	32	28	24
	4	72	57	46	38	66	52	43	35	44	36	30	35	29	24	28	23	19
	5	65	50	39	31	60	46	36	29	38	30	24	31	25	20	24	19	15
	6	60	44	34	26	54	41	31	24	34	26	20	27	21	16	21	16	13
	7	55	39	29	22	50	36	27	21	30	23	17	25	18	14	19	14	11
	8	51	35	26	19	46	33	24	18	27	20	15	22	16	12	17	13	9
	9	47	32	23	17	43	30	21	15	25	18	13	20	14	10	16	11	8
	10	44	29	20	15	40	27	19	14	23	16	11	19	13	9	15	10	7



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

	0°	90°	180°	270°
0°	130	130	130	130
5°	334	140	0	117
10°	576	155	0	105
15°	852	163	0	93
20°	1158	177	0	81
25°	1484	189	0	65
30°	1849	203	0	47
35°	2263	214	0	33
40°	2719	223	0	18
45°	3257	242	0	6
50°	3884	252	0	0
55°	4659	274	0	0
60°	5641	297	0	0
65°	6961	330	0	0
70°	8865	368	0	0
75°	11941	435	0	0
80°	17953	570	26	0
85°	35768	929	52	0



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<u>ZONAL LUMENS:</u>					<u>CANDELA DISTRIBUTION:</u>					
20	Zone	Lumens	% Fixture	% Lamp		0°	90°	180°	270°	360°
0	0°-10°	0.4	0.2	0.2	0°	3	3	3	3	3
0	10°-20°	1.8	1.0	1.0	5°	7	3	0	3	7
	20°-30°	4.5	2.4	2.5	15°	18	4	0	2	18
60	30°-40°	8.0	4.2	4.6	25°	30	4	0	1	30
37	40°-50°	12.1	6.4	6.9	35°	41	4	0	1	41
26	50°-60°	16.0	8.4	9.1	45°	51	4	0	0	51
19	60°-70°	19.3	10.2	11.0	55°	59	4	0	0	59
15	70°-80°	21.5	11.3	12.2	65°	65	3	0	0	65
11	80°-90°	22.2	11.7	12.6	75°	69	2	0	0	69
9	90°-100°	21.4	11.3	12.2	85°	69	2	0	0	69
8	100°-110°	19.2	10.1	10.9	90°	69	2	0	0	69
6	110°-120°	16.0	8.4	9.1	95°	68	1	0	0	68
5	120°-130°	12.2	6.4	6.9	105°	63	0	0	0	63
5	130°-140°	8.2	4.3	4.7	115°	57	0	0	0	57
	140°-150°	4.7	2.5	2.7	125°	48	0	0	0	48
	150°-160°	2.0	1.1	1.1	135°	38	0	0	0	38
	160°-170°	0.5	0.2	0.3	145°	28	0	0	0	28
	170°-180°	0.0	0.0	0.0	155°	17	0	0	0	17
	0°-30°	6.6	3.5	3.8	165°	7	0	0	0	7
	0°-40°	14.7	7.7	8.4	175°	0	0	0	0	0
	0°-60°	42.8	22.5	24.4	180°	0	0	0	0	0
	0°-90°	105.8	55.7	60.2						
	90°-120°	56.6	29.8	32.2						
	90°-150°	81.7	43.0	46.5						
	90°-180°	84.0	44.2	47.8						
	0°-180°	190.0	100.0	108.2						



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**CANDELA DISTRIBUTION (FULL):**

Flux		0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°
	0°	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9
1	1°	3.8	3.7	3.6	3.3	2.9	2.7	2.4	2.2	2.1	2.1
5	2°	4.7	4.5	4.2	3.7	3.0	2.4	1.9	1.4	1.3	1.4
14	3°	5.5	5.3	4.8	4.0	3.1	2.2	1.4	0.8	0.6	0.7
26	4°	6.4	6.2	5.5	4.4	3.1	1.9	0.8	0.3	0.1	0.2
40	5°	7.4	7.2	6.1	4.8	3.1	1.6	0.4	0.0	0.0	0.0
53	6°	8.4	8.1	6.8	5.2	3.2	1.4	0.2	0.0	0.0	0.0
65	7°	9.4	9.0	7.5	5.6	3.2	1.2	0.0	0.0	0.0	0.0
73	8°	10.5	10.1	8.3	6.0	3.3	0.9	0.0	0.0	0.0	0.0
57	9°	11.6	11.0	9.1	6.4	3.3	0.7	0.0	0.0	0.0	0.0
38	10°	12.6	12.0	9.8	6.8	3.4	0.5	0.0	0.0	0.0	0.0
55	11°	13.7	13.0	10.5	7.2	3.4	0.3	0.0	0.0	0.0	0.0
67	12°	14.8	14.0	11.3	7.6	3.4	0.2	0.0	0.0	0.0	0.0
56	13°	15.9	15.2	12.1	8.0	3.5	0.1	0.0	0.0	0.0	0.0
43	14°	17.1	16.2	12.8	8.4	3.5	0.0	0.0	0.0	0.0	0.0
30	15°	18.3	17.2	13.6	8.9	3.5	0.0	0.0	0.0	0.0	0.0
18	16°	19.4	18.4	14.5	9.2	3.6	0.0	0.0	0.0	0.0	0.0
8	17°	20.7	19.4	15.3	9.7	3.6	0.0	0.0	0.0	0.0	0.0
2	18°	21.7	20.4	16.0	10.1	3.6	0.0	0.0	0.0	0.0	0.0
0	19°	22.9	21.5	16.8	10.5	3.7	0.0	0.0	0.0	0.0	0.0
	20°	24.2	22.7	17.7	10.9	3.7	0.0	0.0	0.0	0.0	0.0
	21°	25.3	23.8	18.5	11.3	3.7	0.0	0.0	0.0	0.0	0.0
	22°	26.4	24.8	19.2	11.7	3.7	0.0	0.0	0.0	0.0	0.0
	23°	27.6	25.9	20.0	12.2	3.7	0.0	0.0	0.0	0.0	0.0
	24°	28.8	27.0	20.8	12.5	3.8	0.0	0.0	0.0	0.0	0.0
	25°	29.9	28.1	21.6	12.9	3.8	0.0	0.0	0.0	0.0	0.0
	26°	31.1	29.2	22.5	13.4	3.8	0.0	0.0	0.0	0.0	0.0
	27°	32.3	30.3	23.2	13.7	3.8	0.0	0.0	0.0	0.0	0.0
	28°	33.4	31.3	24.0	14.1	3.8	0.0	0.0	0.0	0.0	0.0
	29°	34.5	32.4	24.7	14.5	3.8	0.0	0.0	0.0	0.0	0.0
	30°	35.6	33.4	25.5	14.9	3.9	0.0	0.0	0.0	0.0	0.0
	31°	36.8	34.5	26.3	15.3	3.8	0.0	0.0	0.0	0.0	0.0
	32°	37.9	35.5	27.0	15.6	3.8	0.0	0.0	0.0	0.0	0.0
	33°	39.0	36.6	27.8	16.1	3.9	0.0	0.0	0.0	0.0	0.0
	34°	40.0	37.5	28.6	16.4	3.9	0.0	0.0	0.0	0.0	0.0
	35°	41.2	38.5	29.3	16.8	3.9	0.0	0.0	0.0	0.0	0.0
	36°	42.2	39.5	30.0	17.1	3.9	0.0	0.0	0.0	0.0	0.0
	37°	43.2	40.6	30.7	17.5	3.9	0.0	0.0	0.0	0.0	0.0
	38°	44.3	41.5	31.5	17.8	3.8	0.0	0.0	0.0	0.0	0.0
	39°	45.3	42.4	32.1	18.1	3.9	0.0	0.0	0.0	0.0	0.0
	40°	46.3	43.3	32.8	18.5	3.8	0.0	0.0	0.0	0.0	0.0
	41°	47.3	44.2	33.4	18.8	3.8	0.0	0.0	0.0	0.0	0.0
	42°	48.2	45.2	34.1	19.1	3.8	0.0	0.0	0.0	0.0	0.0
	43°	49.2	46.1	34.8	19.4	3.8	0.0	0.0	0.0	0.0	0.0
	44°	50.2	47.0	35.4	19.8	3.8	0.0	0.0	0.0	0.0	0.0



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**CANDELA DISTRIBUTION (continued):**

225°	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°
2.9	45°	51.2	47.8	36.1	20.1	3.8	0.0	0.0	0.0	0.0
2.3	46°	52.1	48.6	36.6	20.4	3.7	0.0	0.0	0.0	0.0
1.7	47°	53.0	49.5	37.2	20.6	3.7	0.0	0.0	0.0	0.0
1.1	48°	53.8	50.2	37.8	20.9	3.7	0.0	0.0	0.0	0.0
0.6	49°	54.7	51.1	38.4	21.2	3.7	0.0	0.0	0.0	0.0
0.3	50°	55.5	51.8	38.9	21.4	3.6	0.0	0.0	0.0	0.0
0.0	51°	56.3	52.6	39.5	21.7	3.6	0.0	0.0	0.0	0.0
0.0	52°	57.1	53.4	39.9	21.9	3.6	0.0	0.0	0.0	0.0
0.0	53°	57.9	54.1	40.5	22.2	3.5	0.0	0.0	0.0	0.0
0.0	54°	58.7	54.7	41.0	22.4	3.5	0.0	0.0	0.0	0.0
0.0	55°	59.4	55.4	41.4	22.6	3.5	0.0	0.0	0.0	0.0
0.0	56°	60.1	56.1	42.0	22.8	3.5	0.0	0.0	0.0	0.0
0.0	57°	60.8	56.7	42.4	23.0	3.4	0.0	0.0	0.0	0.0
0.0	58°	61.5	57.3	42.8	23.2	3.4	0.0	0.0	0.0	0.0
0.0	59°	62.1	57.9	43.2	23.3	3.3	0.0	0.0	0.0	0.0
0.0	60°	62.7	58.5	43.6	23.5	3.3	0.0	0.0	0.0	0.0
0.0	61°	63.3	59.0	44.0	23.7	3.2	0.0	0.0	0.0	0.0
0.0	62°	63.8	59.5	44.4	23.8	3.2	0.0	0.0	0.0	0.0
0.0	63°	64.4	60.0	44.7	24.0	3.2	0.0	0.0	0.0	0.0
0.0	64°	65.0	60.5	45.0	24.1	3.1	0.0	0.0	0.0	0.0
0.0	65°	65.4	60.9	45.3	24.2	3.1	0.0	0.0	0.0	0.0
0.0	66°	65.9	61.4	45.6	24.3	3.0	0.0	0.0	0.0	0.0
0.0	67°	66.3	61.8	45.9	24.4	3.0	0.0	0.0	0.0	0.0
0.0	68°	66.7	62.1	46.2	24.5	2.9	0.0	0.0	0.0	0.0
0.0	69°	67.1	62.5	46.4	24.6	2.9	0.0	0.0	0.0	0.0
0.0	70°	67.4	62.8	46.6	24.7	2.8	0.0	0.0	0.0	0.0
0.0	71°	67.8	63.1	46.8	24.8	2.7	0.0	0.0	0.0	0.0
0.0	72°	68.1	63.4	47.0	24.9	2.7	0.0	0.0	0.0	0.0
0.0	73°	68.3	63.6	47.2	24.9	2.6	0.0	0.0	0.0	0.0
0.0	74°	68.6	63.9	47.3	24.9	2.6	0.0	0.0	0.1	0.0
0.0	75°	68.7	64.0	47.4	24.9	2.5	0.0	0.0	0.0	0.1
0.0	76°	68.9	64.2	47.5	25.0	2.4	0.0	0.0	0.0	0.0
0.0	77°	69.1	64.3	47.6	24.9	2.4	0.0	0.0	0.1	0.0
0.0	78°	69.2	64.4	47.7	25.0	2.3	0.0	0.0	0.1	0.1
0.0	79°	69.2	64.5	47.7	24.9	2.3	0.0	0.0	0.1	0.1
0.0	80°	69.3	64.6	47.7	24.9	2.2	0.0	0.0	0.1	0.1
0.1	81°	69.4	64.6	47.7	24.8	2.1	0.0	0.0	0.1	0.1
0.0	82°	69.4	64.6	47.7	24.8	2.1	0.0	0.0	0.1	0.2
0.0	83°	69.3	64.5	47.6	24.7	2.0	0.0	0.0	0.1	0.1
0.0	84°	69.4	64.5	47.6	24.7	1.9	0.0	0.0	0.1	0.2
0.0	85°	69.3	64.5	47.5	24.6	1.8	0.0	0.0	0.1	0.1
0.0	86°	69.3	64.4	47.4	24.4	1.8	0.0	0.0	0.1	0.1
0.0	87°	69.2	64.3	47.3	24.4	1.7	0.0	0.1	0.1	0.1
0.1	88°	69.0	64.2	47.2	24.2	1.6	0.0	0.0	0.1	0.0
0.0	89°	68.9	64.1	47.1	24.1	1.6	0.0	0.1	0.1	0.0



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**CANDELA DISTRIBUTION (continued):**

225°	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	
0.0	90°	68.8	63.9	46.9	23.9	1.5	0.0	0.1	0.1	0.1	0.1
0.0	91°	68.6	63.7	46.8	23.9	1.4	0.0	0.1	0.1	0.2	0.1
0.0	92°	68.4	63.5	46.6	23.8	1.3	0.0	0.1	0.1	0.2	0.1
0.0	93°	68.1	63.3	46.4	23.6	1.3	0.0	0.1	0.1	0.2	0.1
0.0	94°	67.9	63.0	46.3	23.4	1.2	0.0	0.1	0.1	0.2	0.1
0.0	95°	67.6	62.7	46.0	23.3	1.1	0.0	0.1	0.1	0.2	0.1
0.0	96°	67.2	62.4	45.8	23.1	1.1	0.0	0.1	0.1	0.2	0.1
0.0	97°	66.9	62.1	45.5	22.9	1.0	0.0	0.1	0.1	0.2	0.1
0.0	98°	66.5	61.7	45.2	22.7	0.9	0.0	0.1	0.1	0.2	0.1
0.0	99°	66.1	61.4	44.8	22.5	0.9	0.0	0.1	0.1	0.2	0.0
0.0	100°	65.5	61.0	44.5	22.2	0.8	0.0	0.1	0.1	0.2	0.1
0.0	101°	65.1	60.5	44.2	22.1	0.7	0.0	0.0	0.1	0.1	0.1
0.1	102°	64.6	60.1	43.9	21.8	0.6	0.0	0.0	0.1	0.2	0.0
0.0	103°	64.1	59.6	43.5	21.6	0.6	0.0	0.0	0.1	0.1	0.0
0.0	104°	63.7	59.1	43.1	21.3	0.5	0.0	0.0	0.1	0.1	0.0
0.0	105°	63.1	58.6	42.7	21.0	0.4	0.0	0.0	0.1	0.0	0.0
0.0	106°	62.6	58.1	42.3	20.8	0.4	0.0	0.0	0.1	0.2	0.0
0.0	107°	62.0	57.5	41.8	20.5	0.3	0.0	0.0	0.1	0.1	0.0
0.0	108°	61.3	56.9	41.4	20.2	0.3	0.0	0.0	0.1	0.0	0.0
0.1	109°	60.7	56.4	41.0	19.9	0.2	0.0	0.0	0.1	0.0	0.0
0.0	110°	60.1	55.7	40.4	19.7	0.2	0.0	0.0	0.1	0.0	0.0
0.1	111°	59.4	55.1	40.0	19.4	0.2	0.0	0.0	0.1	0.0	0.0
0.0	112°	58.7	54.5	39.5	19.0	0.1	0.0	0.0	0.1	0.0	0.0
0.0	113°	58.0	53.8	39.0	18.7	0.1	0.0	0.0	0.1	0.0	0.0
0.0	114°	57.3	53.1	38.5	18.4	0.0	0.0	0.0	0.0	0.0	0.0
0.0	115°	56.6	52.5	37.9	18.1	0.0	0.0	0.0	0.1	0.0	0.0
0.1	116°	55.8	51.7	37.4	17.7	0.0	0.0	0.0	0.0	0.1	0.0
0.0	117°	55.0	51.0	36.9	17.4	0.0	0.0	0.0	0.0	0.0	0.0
0.0	118°	54.3	50.2	36.3	17.1	0.0	0.0	0.0	0.0	0.0	0.0
0.0	119°	53.5	49.5	35.6	16.7	0.0	0.0	0.0	0.0	0.0	0.0
0.0	120°	52.6	48.7	35.0	16.3	0.0	0.0	0.0	0.0	0.0	0.0
0.0	121°	51.7	47.9	34.4	16.0	0.0	0.0	0.0	0.0	0.0	0.0
0.0	122°	50.9	47.1	33.8	15.6	0.0	0.0	0.0	0.0	0.0	0.0
0.0	123°	50.0	46.4	33.2	15.3	0.0	0.0	0.0	0.0	0.0	0.0
0.1	124°	49.1	45.5	32.5	14.9	0.0	0.0	0.0	0.0	0.0	0.0
0.0	125°	48.2	44.6	31.9	14.5	0.0	0.0	0.0	0.0	0.0	0.0
0.0	126°	47.3	43.8	31.2	14.2	0.0	0.0	0.0	0.0	0.0	0.0
0.1	127°	46.4	42.9	30.6	13.8	0.0	0.0	0.0	0.0	0.0	0.0
0.1	128°	45.5	42.0	29.9	13.4	0.0	0.0	0.0	0.0	0.0	0.0
0.1	129°	44.5	41.1	29.2	13.0	0.0	0.0	0.0	0.0	0.0	0.0
0.1	130°	43.5	40.2	28.5	12.6	0.0	0.0	0.0	0.0	0.0	0.0
0.1	131°	42.5	39.3	27.8	12.2	0.0	0.0	0.0	0.0	0.0	0.0
0.1	132°	41.6	38.4	27.1	11.8	0.0	0.0	0.0	0.0	0.0	0.0
0.1	133°	40.6	37.5	26.4	11.4	0.0	0.0	0.0	0.0	0.0	0.0
0.2	134°	39.5	36.5	25.6	11.0	0.0	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P1431927

CATALOG NUMBER: HSLBKMW-4000K

**CANDELA DISTRIBUTION (continued):**

225°	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°
0.1	135°	38.5	35.6	24.9	10.7	0.0	0.0	0.0	0.0	0.0
0.1	136°	37.5	34.6	24.2	10.3	0.0	0.0	0.0	0.0	0.0
0.2	137°	36.5	33.5	23.4	9.9	0.0	0.0	0.0	0.0	0.0
0.2	138°	35.4	32.6	22.8	9.5	0.0	0.0	0.0	0.0	0.0
0.1	139°	34.4	31.5	21.9	9.0	0.0	0.0	0.0	0.0	0.0
0.1	140°	33.3	30.6	21.2	8.7	0.0	0.0	0.0	0.0	0.0
0.2	141°	32.2	29.6	20.5	8.3	0.0	0.0	0.0	0.0	0.0
0.2	142°	31.1	28.6	19.7	7.9	0.0	0.0	0.0	0.0	0.0
0.1	143°	30.1	27.5	18.9	7.5	0.0	0.0	0.0	0.0	0.0
0.0	144°	28.9	26.5	18.1	7.1	0.0	0.0	0.0	0.0	0.0
0.2	145°	27.8	25.5	17.3	6.7	0.0	0.0	0.0	0.0	0.0
0.0	146°	26.7	24.5	16.6	6.3	0.0	0.0	0.0	0.0	0.0
0.1	147°	25.6	23.5	15.9	5.9	0.0	0.0	0.0	0.0	0.0
0.1	148°	24.5	22.4	15.1	5.5	0.0	0.0	0.0	0.0	0.0
0.1	149°	23.3	21.4	14.3	5.2	0.0	0.0	0.0	0.0	0.0
0.1	150°	22.3	20.3	13.5	4.9	0.0	0.0	0.0	0.0	0.0
0.0	151°	21.2	19.3	12.8	4.4	0.0	0.0	0.0	0.0	0.0
0.1	152°	20.1	18.3	12.1	4.1	0.0	0.0	0.0	0.0	0.0
0.0	153°	19.0	17.2	11.3	3.8	0.0	0.0	0.0	0.0	0.0
0.0	154°	17.8	16.2	10.6	3.3	0.0	0.0	0.0	0.0	0.0
0.0	155°	16.8	15.2	9.9	3.0	0.0	0.0	0.0	0.0	0.0
0.0	156°	15.7	14.2	9.1	2.7	0.0	0.0	0.0	0.0	0.0
0.0	157°	14.6	13.3	8.4	2.3	0.0	0.0	0.0	0.0	0.0
0.0	158°	13.6	12.3	7.8	2.0	0.0	0.0	0.0	0.0	0.0
0.0	159°	12.4	11.2	7.0	1.6	0.0	0.0	0.0	0.0	0.0
0.0	160°	11.5	10.3	6.3	1.3	0.0	0.0	0.0	0.0	0.0
0.0	161°	10.4	9.4	5.7	0.9	0.0	0.0	0.0	0.0	0.0
0.0	162°	9.5	8.4	5.1	0.7	0.0	0.0	0.0	0.0	0.0
0.0	163°	8.5	7.5	4.4	0.4	0.0	0.0	0.0	0.0	0.0
0.0	164°	7.5	6.7	3.8	0.1	0.0	0.0	0.0	0.0	0.0
0.1	165°	6.6	5.7	3.2	0.0	0.0	0.0	0.0	0.0	0.0
0.0	166°	5.6	4.9	2.6	0.0	0.0	0.0	0.0	0.0	0.0
0.0	167°	4.8	4.2	2.0	0.0	0.0	0.0	0.0	0.0	0.0
0.0	168°	3.9	3.4	1.4	0.0	0.0	0.0	0.0	0.0	0.0
0.0	169°	3.2	2.7	1.0	0.0	0.0	0.0	0.0	0.0	0.0
0.0	170°	2.4	1.9	0.5	0.0	0.0	0.0	0.0	0.0	0.0
0.0	171°	1.5	1.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0.0	172°	0.8	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0.0	173°	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0.0	174°	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
0.1	176°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0.1	177°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0.0	178°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0.0	179°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0





TEST NUMBER: P1431927

CATALOG NUMBER: HSLBKMW-4000K

**CANDELA DISTRIBUTION (continued):**

225°		247.5°	270°	292.5°	315°	337.5°	360°
0.0	0°	2.9	2.9	2.9	2.9	2.9	2.9
	1°	2.6	2.8	3.1	3.5	3.7	3.8
	2°	2.2	2.8	3.4	4.0	4.4	4.7
	3°	1.9	2.7	3.7	4.6	5.2	5.5
	4°	1.5	2.7	3.9	5.1	6.0	6.4
	5°	1.1	2.6	4.2	5.8	6.8	7.4
	6°	0.8	2.6	4.5	6.4	7.8	8.4
	7°	0.6	2.5	4.7	7.0	8.7	9.4
	8°	0.3	2.5	5.0	7.6	9.7	10.5
	9°	0.1	2.4	5.3	8.2	10.5	11.6
	10°	0.0	2.3	5.5	8.9	11.4	12.6
	11°	0.0	2.3	5.8	9.5	12.4	13.7
	12°	0.0	2.2	6.1	10.2	13.4	14.8
	13°	0.0	2.2	6.3	10.9	14.4	15.9
	14°	0.0	2.1	6.6	11.5	15.4	17.1
	15°	0.0	2.0	6.9	12.2	16.4	18.3
	16°	0.0	1.9	7.1	12.9	17.3	19.4
	17°	0.0	1.9	7.4	13.6	18.4	20.7
	18°	0.0	1.8	7.7	14.2	19.4	21.7
	19°	0.0	1.7	8.0	14.9	20.4	22.9
	20°	0.0	1.7	8.2	15.6	21.5	24.2
	21°	0.0	1.6	8.5	16.3	22.5	25.3
	22°	0.0	1.5	8.8	17.0	23.5	26.4
	23°	0.0	1.5	9.0	17.6	24.5	27.6
	24°	0.0	1.4	9.3	18.4	25.6	28.8
	25°	0.0	1.3	9.5	19.0	26.6	29.9
	26°	0.0	1.2	9.8	19.7	27.5	31.1
	27°	0.0	1.1	10.1	20.4	28.6	32.3
	28°	0.0	1.1	10.3	21.0	29.6	33.4
	29°	0.0	1.0	10.5	21.7	30.6	34.5
	30°	0.0	0.9	10.8	22.3	31.5	35.6
	31°	0.0	0.9	11.0	23.0	32.6	36.8
	32°	0.0	0.8	11.3	23.7	33.5	37.9
	33°	0.0	0.7	11.5	24.3	34.5	39.0
	34°	0.0	0.6	11.7	25.0	35.4	40.0
	35°	0.0	0.6	12.0	25.6	36.4	41.2
	36°	0.0	0.5	12.2	26.2	37.3	42.2
	37°	0.0	0.4	12.4	26.8	38.2	43.2
	38°	0.0	0.4	12.6	27.4	39.1	44.3
	39°	0.0	0.3	12.8	28.0	40.0	45.3
	40°	0.0	0.3	13.0	28.6	40.9	46.3
	41°	0.0	0.3	13.2	29.1	41.7	47.3
	42°	0.0	0.2	13.4	29.8	42.6	48.2
	43°	0.0	0.2	13.6	30.3	43.4	49.2
	44°	0.0	0.1	13.8	30.8	44.2	50.2



TEST NUMBER: P1431927  
 CATALOG NUMBER: HSLBKMW-4000K

**CANDELA DISTRIBUTION (continued):**

	247.5°	270°	292.5°	315°	337.5°	360°
45°	0.0	0.1	14.0	31.4	45.1	51.2
46°	0.0	0.0	14.1	31.9	45.9	52.1
47°	0.0	0.0	14.3	32.4	46.6	53.0
48°	0.0	0.0	14.5	32.9	47.4	53.8
49°	0.0	0.0	14.6	33.4	48.2	54.7
50°	0.0	0.0	14.8	33.8	48.9	55.5
51°	0.0	0.0	14.9	34.3	49.6	56.3
52°	0.0	0.0	15.1	34.8	50.3	57.1
53°	0.0	0.0	15.2	35.2	50.9	57.9
54°	0.0	0.0	15.3	35.6	51.6	58.7
55°	0.0	0.0	15.4	36.0	52.2	59.4
56°	0.0	0.0	15.6	36.4	52.8	60.1
57°	0.0	0.0	15.7	36.8	53.4	60.8
58°	0.0	0.0	15.8	37.1	53.9	61.5
59°	0.0	0.0	15.9	37.5	54.5	62.1
60°	0.0	0.0	16.0	37.8	55.0	62.7
61°	0.0	0.0	16.0	38.2	55.6	63.3
62°	0.0	0.0	16.1	38.5	56.0	63.8
63°	0.0	0.0	16.2	38.8	56.5	64.4
64°	0.0	0.0	16.3	39.0	57.0	65.0
65°	0.0	0.0	16.3	39.3	57.4	65.4
66°	0.0	0.0	16.4	39.5	57.8	65.9
67°	0.0	0.0	16.4	39.8	58.2	66.3
68°	0.0	0.0	16.4	40.0	58.5	66.7
69°	0.0	0.0	16.5	40.2	58.8	67.1
70°	0.0	0.0	16.5	40.4	59.1	67.4
71°	0.0	0.0	16.5	40.5	59.4	67.8
72°	0.0	0.0	16.5	40.7	59.6	68.1
73°	0.0	0.0	16.5	40.8	59.8	68.3
74°	0.0	0.0	16.5	40.9	60.0	68.6
75°	0.0	0.0	16.5	41.0	60.2	68.7
76°	0.0	0.0	16.5	41.1	60.3	68.9
77°	0.0	0.0	16.5	41.2	60.5	69.1
78°	0.0	0.0	16.5	41.2	60.5	69.2
79°	0.0	0.0	16.4	41.2	60.6	69.2
80°	0.0	0.0	16.4	41.2	60.6	69.3
81°	0.0	0.0	16.3	41.2	60.7	69.4
82°	0.0	0.0	16.3	41.2	60.7	69.4
83°	0.0	0.0	16.2	41.1	60.7	69.3
84°	0.0	0.0	16.1	41.1	60.7	69.4
85°	0.0	0.0	16.0	41.0	60.6	69.3
86°	0.0	0.0	15.9	40.9	60.5	69.3
87°	0.0	0.0	15.8	40.8	60.5	69.2
88°	0.0	0.0	15.8	40.7	60.4	69.0
89°	0.0	0.0	15.7	40.6	60.2	68.9



TEST NUMBER: P1431927  
 CATALOG NUMBER: HSLBKMW-4000K

**CANDELA DISTRIBUTION (continued):**

	247.5°	270°	292.5°	315°	337.5°	360°
90°	0.0	0.0	15.6	40.5	60.1	68.8
91°	0.0	0.0	15.5	40.3	59.9	68.6
92°	0.0	0.0	15.3	40.2	59.7	68.4
93°	0.0	0.0	15.2	40.0	59.5	68.1
94°	0.0	0.0	15.1	39.8	59.3	67.9
95°	0.0	0.0	14.9	39.5	59.0	67.6
96°	0.0	0.0	14.8	39.3	58.7	67.2
97°	0.0	0.0	14.6	39.1	58.3	66.9
98°	0.0	0.0	14.4	38.8	58.0	66.5
99°	0.0	0.0	14.3	38.5	57.6	66.1
100°	0.0	0.0	14.1	38.2	57.2	65.5
101°	0.0	0.0	13.9	37.9	56.8	65.1
102°	0.0	0.0	13.8	37.6	56.4	64.6
103°	0.0	0.0	13.6	37.3	56.0	64.1
104°	0.0	0.0	13.4	36.9	55.5	63.7
105°	0.0	0.0	13.2	36.6	55.0	63.1
106°	0.0	0.0	13.0	36.2	54.5	62.6
107°	0.0	0.0	12.8	35.8	54.0	62.0
108°	0.0	0.0	12.6	35.4	53.4	61.3
109°	0.0	0.0	12.4	35.0	52.9	60.7
110°	0.0	0.0	12.2	34.6	52.3	60.1
111°	0.0	0.0	11.9	34.2	51.8	59.4
112°	0.0	0.0	11.7	33.7	51.1	58.7
113°	0.0	0.0	11.5	33.2	50.5	58.0
114°	0.0	0.0	11.2	32.8	49.8	57.3
115°	0.0	0.0	11.0	32.3	49.2	56.6
116°	0.0	0.0	10.8	31.8	48.5	55.8
117°	0.0	0.0	10.5	31.3	47.8	55.0
118°	0.0	0.0	10.3	30.8	47.1	54.3
119°	0.0	0.0	10.1	30.3	46.4	53.5
120°	0.0	0.0	9.8	29.7	45.7	52.6
121°	0.0	0.0	9.6	29.2	44.9	51.7
122°	0.0	0.0	9.3	28.6	44.1	50.9
123°	0.0	0.0	9.1	28.1	43.4	50.0
124°	0.0	0.0	8.8	27.5	42.6	49.1
125°	0.0	0.0	8.6	26.9	41.8	48.2
126°	0.0	0.0	8.3	26.4	40.9	47.3
127°	0.0	0.0	8.0	25.8	40.1	46.4
128°	0.0	0.0	7.8	25.2	39.3	45.5
129°	0.0	0.0	7.5	24.6	38.5	44.5
130°	0.0	0.0	7.3	23.9	37.6	43.5
131°	0.0	0.0	7.0	23.3	36.7	42.5
132°	0.0	0.0	6.8	22.7	35.8	41.6
133°	0.0	0.0	6.5	22.1	35.0	40.6
134°	0.0	0.0	6.2	21.5	34.1	39.5



TEST NUMBER: P1431927  
 CATALOG NUMBER: HSLBKMW-4000K

**CANDELA DISTRIBUTION (continued):**

	247.5°	270°	292.5°	315°	337.5°	360°
135°	0.0	0.0	6.0	20.8	33.1	38.5
136°	0.0	0.0	5.7	20.2	32.2	37.5
137°	0.0	0.0	5.5	19.5	31.3	36.5
138°	0.0	0.0	5.2	18.9	30.4	35.4
139°	0.0	0.0	4.9	18.3	29.5	34.4
140°	0.0	0.0	4.7	17.5	28.5	33.3
141°	0.0	0.0	4.4	16.9	27.5	32.2
142°	0.0	0.0	4.2	16.3	26.6	31.1
143°	0.0	0.0	3.9	15.6	25.6	30.1
144°	0.0	0.0	3.7	14.9	24.7	28.9
145°	0.0	0.0	3.4	14.3	23.7	27.8
146°	0.0	0.0	3.1	13.6	22.7	26.7
147°	0.0	0.0	2.9	13.0	21.8	25.6
148°	0.0	0.0	2.7	12.3	20.8	24.5
149°	0.0	0.0	2.4	11.7	19.8	23.3
150°	0.0	0.0	2.2	11.0	18.8	22.3
151°	0.0	0.0	1.9	10.4	17.8	21.2
152°	0.0	0.0	1.7	9.8	16.9	20.1
153°	0.0	0.0	1.4	9.2	16.0	19.0
154°	0.0	0.0	1.2	8.5	15.0	17.8
155°	0.0	0.0	1.0	7.9	14.0	16.8
156°	0.0	0.0	0.8	7.3	13.1	15.7
157°	0.0	0.0	0.6	6.7	12.1	14.6
158°	0.0	0.0	0.4	6.1	11.3	13.6
159°	0.0	0.0	0.2	5.6	10.4	12.4
160°	0.0	0.0	0.0	4.9	9.5	11.5
161°	0.0	0.0	0.0	4.4	8.5	10.4
162°	0.0	0.0	0.0	3.9	7.7	9.5
163°	0.0	0.0	0.0	3.3	6.8	8.5
164°	0.0	0.0	0.0	2.8	6.0	7.5
165°	0.0	0.0	0.0	2.3	5.2	6.6
166°	0.0	0.0	0.0	1.8	4.5	5.6
167°	0.0	0.0	0.0	1.2	3.7	4.8
168°	0.0	0.0	0.0	0.7	3.0	3.9
169°	0.0	0.0	0.0	0.3	2.3	3.2
170°	0.0	0.0	0.0	0.0	1.4	2.4
171°	0.0	0.0	0.0	0.0	0.8	1.5
172°	0.0	0.0	0.0	0.0	0.3	0.8
173°	0.0	0.0	0.0	0.0	0.0	0.2
174°	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
176°	0.0	0.0	0.0	0.0	0.0	0.0
177°	0.0	0.0	0.0	0.0	0.0	0.0
178°	0.0	0.0	0.0	0.0	0.0	0.0
179°	0.0	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P1431927  
CATALOG NUMBER: HSLBKMW-4000K

**CANDELA DISTRIBUTION (continued):**

	247.5°	270°	292.5°	315°	337.5°	360°
180°	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)