

Scaled data based on original data using

LM-41-14 Approved Method for Photometric Testing Of Indoor Fluorescent Luminaires

Test Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

Brand: HALO

Report Number: P284770

Luminaire Tested: **HLB4S06927**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P284770  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA ( GONIOTESTING)  
Test Lab: UL-CCIC  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: HALO  
Catalog Number: HLB4S06927  
Description: 4 IN SQUARE HALO BLADE (600 LUMEN) - 2700K  
Light Source: -  
Ballast/Driver: -

**Summary**

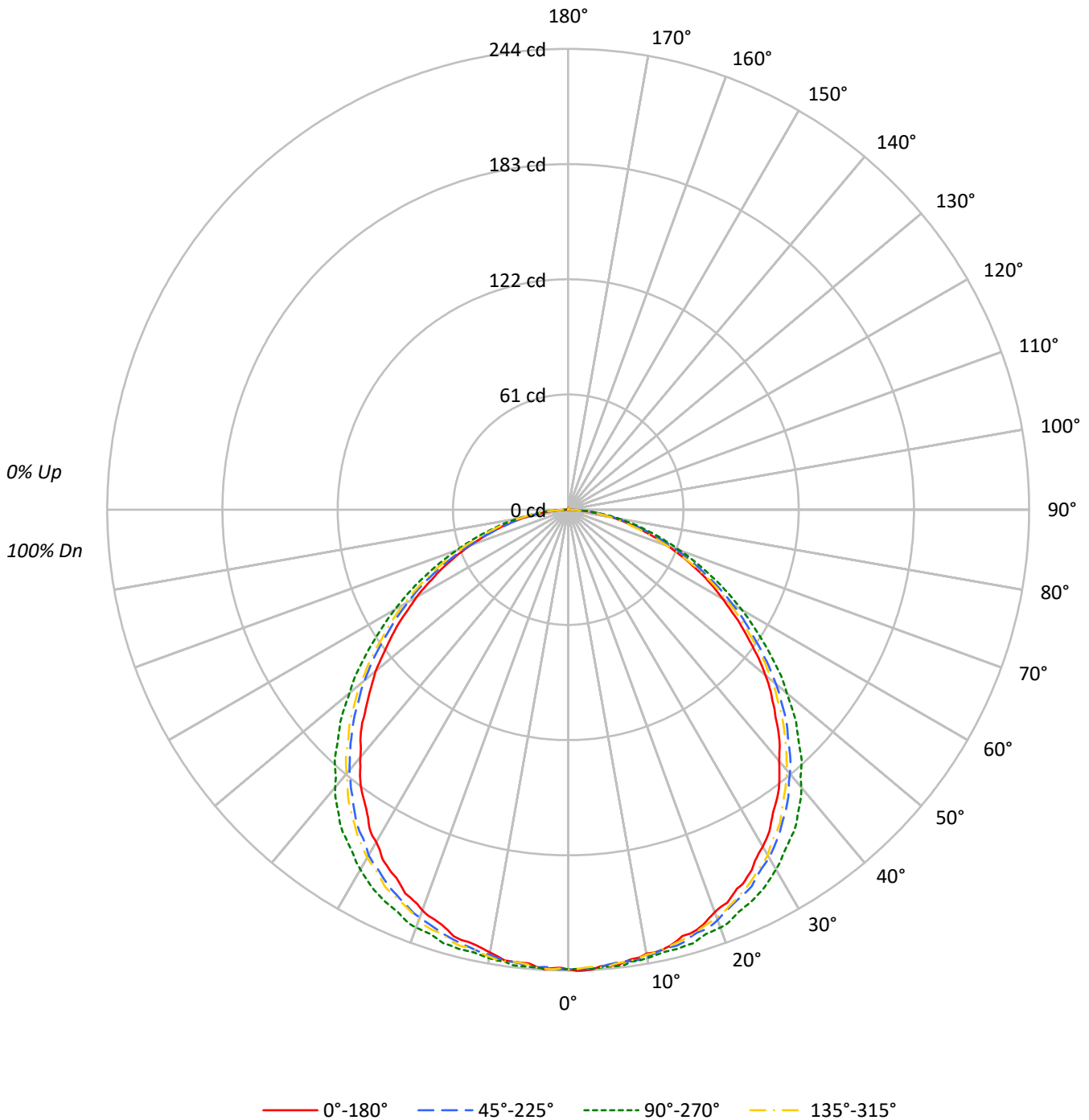
Lumens per Lamp: N/A  
Luminaire Lumens: 684.8 lumens  
Efficiency: N/A  
Efficacy: 67.8 lumens/watt  
Spacing Criteria (0/90/45): 1.25 / 1.33 / 1.38  
Luminous Opening: Circular (Dia: 0.33' x H: 0')  
CIE Type: Direct

Input Watts (W): 10.1  
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



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### 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	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	109	104	100	96	106	102	98	95	98	94	92	94	91	89	90	88	86	84
2	99	91	84	79	97	89	83	78	86	80	76	82	78	74	79	76	72	70
3	91	80	72	66	88	78	71	65	75	69	64	73	67	63	70	65	62	59
4	83	71	62	56	81	70	62	55	67	60	54	65	59	54	63	57	53	51
5	76	64	55	48	74	62	54	48	60	53	47	58	52	47	56	51	46	44
6	70	57	48	42	69	56	48	42	54	47	41	53	46	41	51	45	41	39
7	65	52	43	37	64	51	43	37	50	42	37	48	41	36	47	41	36	34
8	61	47	39	33	59	47	39	33	45	38	33	44	37	33	43	37	32	30
9	57	43	35	30	55	43	35	30	42	35	30	41	34	29	40	34	29	27
10	53	40	32	27	52	40	32	27	39	32	27	38	31	27	37	31	27	25

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

	0°	90°	180°	270°
0°	29903	29903	29903	29903
5°	29856	29955	29733	29955
10°	29778	30077	29703	30077
15°	29724	30398	29736	30398
20°	29638	30789	29508	30789
25°	29632	31055	29158	31055
30°	29223	31209	28826	31209
35°	28645	31225	28241	31225
40°	27857	30792	27456	30792
45°	26965	29936	26426	29936
50°	26070	28879	25439	28879
55°	24589	27587	24075	27587
60°	23195	26094	22777	26094
65°	21860	24360	21395	24360
70°	20259	22558	19756	22558
75°	18655	20933	18132	20933
80°	16909	19314	16131	19314
85°	14378	17338	13250	17338



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	23.1	3.4
10°-20°	66.7	9.7
20°-30°	102.5	15.0
30°-40°	123.8	18.1
40°-50°	125.4	18.3
50°-60°	107.9	15.8
60°-70°	78.0	11.4
70°-80°	43.2	6.3
80°-90°	12.5	1.8
90°-100°	0.3	0.0
100°-110°	0.1	0.0
110°-120°	0.1	0.0
120°-130°	0.2	0.0
130°-140°	0.2	0.0
140°-150°	0.2	0.0
150°-160°	0.2	0.0
160°-170°	0.2	0.0
170°-180°	0.1	0.0
0°-30°	192.3	28.1
0°-40°	316.2	46.2
0°-60°	549.5	80.2
0°-90°	683.2	99.8
90°-120°	0.5	0.1
90°-150°	1.2	0.2
90°-180°	2.0	0.3
0°-180°	684.8	100.0

**CANDELA DISTRIBUTION:**

	0°	90°	180°	270°	360°	Flux
0°	243	243	243	243	243	
5°	242	243	241	243	242	23
15°	234	239	234	239	234	66
25°	219	229	215	229	219	100
35°	191	208	188	208	191	120
45°	155	172	152	172	155	120
55°	115	129	112	129	115	103
65°	75	84	74	84	75	75
75°	39	44	38	44	39	42
85°	10	12	9	12	10	11
90°	0	1	0	1	0	1
95°	0	0	0	0	0	0
105°	0	0	0	0	0	0
115°	0	0	0	0	0	0
125°	0	0	0	0	0	0
135°	0	0	0	0	0	0
145°	0	0	0	0	0	0
155°	0	0	0	0	0	0
165°	1	1	1	1	1	0
175°	1	1	1	1	1	0
180°	1	1	1	1	1	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
0°	243.4	243.4	243.4	243.4	243.4	243.4	243.4	243.4	243.4	243.4	243.4
1°	244.2	243.3	243.0	243.0	243.2	243.7	243.3	243.2	242.5	243.2	243.3
2°	244.2	243.4	243.4	242.9	243.2	243.2	242.6	243.3	242.9	243.3	242.6
3°	243.8	243.6	243.4	243.4	243.2	243.0	242.4	242.4	243.7	242.4	242.4
4°	242.4	242.3	242.8	242.9	243.1	242.7	242.9	241.9	242.5	241.9	242.9
5°	242.1	242.3	241.8	242.9	242.9	242.5	242.8	242.6	241.1	242.6	242.8
6°	242.7	242.3	241.3	242.9	243.0	242.2	241.7	242.1	241.1	242.1	241.7
7°	241.5	241.7	241.0	242.5	242.9	241.9	241.2	241.0	241.1	241.0	241.2
8°	240.3	240.7	241.4	241.3	241.6	241.7	241.0	240.2	241.0	240.2	241.0
9°	240.2	239.5	241.3	241.3	241.6	241.3	240.3	239.5	239.4	239.5	240.3
10°	238.7	239.2	240.3	241.2	241.1	240.5	239.2	238.9	238.1	238.9	239.2
11°	238.8	239.1	239.4	240.0	240.4	240.2	239.0	238.4	236.8	238.4	239.0
12°	238.4	238.1	238.1	239.7	239.7	239.7	238.1	236.9	235.7	236.9	238.1
13°	237.3	237.0	237.8	239.2	239.6	239.4	237.3	235.7	234.9	235.7	237.3
14°	235.7	236.0	237.9	238.5	239.7	238.7	236.5	235.2	234.7	235.2	236.5
15°	233.7	234.6	237.0	238.4	239.0	238.5	235.5	234.6	233.8	234.6	235.5
16°	233.5	233.7	235.2	238.3	239.0	237.7	234.5	232.5	231.5	232.5	234.5
17°	232.7	232.5	234.1	236.7	237.5	237.0	233.4	230.9	229.6	230.9	233.4
18°	231.1	231.4	233.8	235.9	236.2	235.6	232.0	229.3	228.3	229.3	232.0
19°	228.8	229.8	232.9	235.3	235.8	234.0	230.9	228.8	227.4	228.8	230.9
20°	226.7	228.0	231.2	234.5	235.5	234.0	229.8	227.4	225.7	227.4	229.8
21°	225.3	226.3	229.2	233.0	234.8	232.8	228.6	225.0	223.4	225.0	228.6
22°	224.5	224.9	227.4	230.9	233.1	231.1	226.7	222.6	221.9	222.6	226.7
23°	222.1	223.1	225.8	230.3	231.2	229.0	225.1	220.9	220.7	220.9	225.1
24°	219.7	221.1	224.5	229.6	230.1	228.0	223.2	219.6	217.8	219.6	223.2
25°	218.6	219.2	223.3	227.4	229.1	226.9	221.7	217.3	215.1	217.3	221.7
26°	216.3	217.0	221.8	225.2	227.5	225.0	219.7	214.1	213.6	214.1	219.7
27°	214.1	214.2	218.9	223.7	226.1	222.4	217.4	212.7	211.5	212.7	217.4
28°	210.6	211.9	216.5	222.4	224.2	220.5	215.1	210.3	209.5	210.3	215.1
29°	208.0	209.9	214.6	220.0	222.1	219.3	213.4	207.4	205.8	207.4	213.4
30°	206.0	207.5	212.8	218.0	220.0	217.6	211.2	205.0	203.2	205.0	211.2
31°	203.6	205.1	210.2	215.7	217.8	214.6	207.7	202.6	201.4	202.6	207.7
32°	201.0	202.3	207.6	213.3	214.9	211.6	205.0	198.9	198.6	198.9	205.0
33°	197.2	199.1	205.0	211.0	212.5	208.8	202.9	195.9	194.4	195.9	202.9
34°	193.8	195.6	201.8	208.0	210.2	206.4	200.3	193.4	191.2	193.4	200.3
35°	191.0	193.3	198.9	204.5	208.2	204.0	196.7	190.5	188.3	190.5	196.7
36°	188.3	190.7	196.1	202.1	205.5	201.5	193.3	187.2	185.6	187.2	193.3
37°	185.3	186.7	193.1	199.5	201.8	197.8	189.9	184.0	182.6	184.0	189.9
38°	181.6	182.8	189.6	196.0	198.8	193.9	186.8	180.9	179.0	180.9	186.8
39°	177.6	180.2	185.7	192.4	195.8	191.1	183.3	177.3	174.9	177.3	183.3
40°	173.7	177.1	182.6	189.6	192.0	187.7	180.1	173.2	171.2	173.2	180.1
41°	170.4	172.5	179.3	185.0	187.5	184.0	176.2	169.3	167.2	169.3	176.2
42°	167.3	168.7	175.7	181.3	184.3	180.1	172.6	165.5	164.3	165.5	172.6
43°	163.5	165.3	171.5	177.5	181.2	176.8	168.8	162.4	160.9	162.4	168.8
44°	159.6	162.1	167.4	173.9	176.7	172.6	164.8	158.5	156.9	158.5	164.8



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
45°	155.2	157.8	164.1	170.0	172.3	168.3	161.2	154.3	152.1	154.3	161.2
46°	151.8	153.7	160.4	166.4	168.5	164.8	157.3	150.4	148.2	150.4	157.3
47°	147.7	149.9	156.0	162.4	164.9	160.1	152.7	146.9	144.3	146.9	152.7
48°	144.3	145.9	151.7	157.9	160.4	156.2	148.8	142.9	140.4	142.9	148.8
49°	140.5	141.9	148.0	153.0	155.6	152.0	145.0	138.5	136.6	138.5	145.0
50°	136.4	137.9	143.6	148.8	151.1	147.5	140.6	134.4	133.1	134.4	140.6
51°	132.3	133.8	139.0	144.8	147.2	142.8	136.3	130.7	128.6	130.7	136.3
52°	128.0	129.4	134.9	140.0	143.0	138.3	132.3	126.2	124.2	126.2	132.3
53°	123.5	125.5	130.3	135.2	138.1	133.8	127.9	121.9	120.1	121.9	127.9
54°	119.0	121.7	126.1	130.7	133.3	129.1	123.1	117.7	116.3	117.7	123.1
55°	114.8	117.6	121.4	126.4	128.8	124.5	118.6	113.9	112.4	113.9	118.6
56°	110.7	113.1	117.0	121.8	124.0	120.1	114.3	109.5	108.5	109.5	114.3
57°	107.0	109.0	113.1	117.0	119.5	115.7	110.4	105.7	104.3	105.7	110.4
58°	102.3	105.1	109.1	112.7	115.0	111.3	106.5	101.7	100.0	101.7	106.5
59°	98.2	100.8	105.1	108.8	110.7	106.8	101.9	97.7	96.3	97.7	101.9
60°	94.4	96.7	100.6	104.6	106.2	102.4	97.7	93.4	92.7	93.4	97.7
61°	90.8	92.8	96.5	100.1	101.5	98.3	93.9	89.9	89.0	89.9	93.9
62°	87.1	88.4	92.3	95.5	97.3	94.5	90.0	85.7	84.9	85.7	90.0
63°	83.3	84.6	88.2	91.4	92.9	90.2	85.6	81.3	80.7	81.3	85.6
64°	79.4	80.5	84.1	87.3	88.6	85.7	81.3	77.4	77.3	77.4	81.3
65°	75.2	76.6	79.8	82.9	83.8	81.2	77.1	73.6	73.6	73.6	77.1
66°	71.3	72.6	75.8	78.8	79.7	77.2	72.8	69.4	69.7	69.4	72.8
67°	67.7	68.9	71.8	74.7	75.4	73.4	68.6	65.3	66.0	65.3	68.6
68°	63.9	65.2	67.8	70.7	71.2	69.3	64.4	61.2	62.3	61.2	64.4
69°	59.9	61.2	63.8	66.7	67.0	65.1	60.1	57.3	58.6	57.3	60.1
70°	56.4	57.4	59.9	62.5	62.8	61.2	55.8	53.5	55.0	53.5	55.8
71°	52.9	53.9	56.2	58.8	58.8	57.5	51.7	49.8	51.3	49.8	51.7
72°	49.4	50.2	52.5	55.0	55.0	53.7	47.8	46.1	48.1	46.1	47.8
73°	45.7	46.7	48.9	51.3	51.3	50.0	43.9	42.5	44.9	42.5	43.9
74°	42.3	43.4	45.3	47.6	47.7	46.4	40.3	39.0	41.6	39.0	40.3
75°	39.3	40.0	41.7	43.9	44.1	43.0	36.7	35.8	38.2	35.8	36.7
76°	36.1	36.8	38.4	40.5	40.6	39.3	34.1	32.7	35.1	32.7	34.1
77°	32.9	33.7	35.1	37.1	37.2	35.7	31.1	29.9	31.9	29.9	31.1
78°	29.8	30.5	31.8	33.7	33.7	32.1	28.4	27.0	28.7	27.0	28.4
79°	26.9	27.4	28.6	30.5	30.5	28.8	25.5	24.3	25.7	24.3	25.5
80°	23.9	24.4	25.6	27.3	27.3	25.8	22.8	21.6	22.8	21.6	22.8
81°	20.9	21.5	22.7	24.2	24.1	22.8	20.1	18.9	19.9	18.9	20.1
82°	18.0	18.6	19.8	21.1	21.1	19.9	17.6	16.2	16.9	16.2	17.6
83°	15.2	15.7	17.0	18.1	18.0	17.0	15.1	13.5	14.2	13.5	15.1
84°	12.6	12.9	14.4	15.3	15.1	14.2	12.7	11.0	11.6	11.0	12.7
85°	10.2	10.5	11.8	12.5	12.3	11.5	10.2	8.8	9.4	8.8	10.2
86°	7.9	8.2	9.2	9.7	9.6	8.9	7.8	6.7	7.3	6.7	7.8
87°	5.7	6.1	6.8	7.1	6.9	6.3	5.5	4.7	5.2	4.7	5.5
88°	3.6	4.0	4.4	4.6	4.3	3.9	3.2	2.8	3.1	2.8	3.2
89°	1.5	2.0	2.3	2.5	2.4	2.1	1.6	1.2	1.2	1.2	1.6



TEST NUMBER: P284770  
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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
90°	0.3	0.8	1.1	1.3	1.2	0.9	0.7	0.4	0.3	0.4	0.7
91°	0.3	0.4	0.4	0.4	0.3	0.4	0.4	0.4	0.2	0.4	0.4
92°	0.3	0.4	0.4	0.3	0.3	0.3	0.4	0.4	0.2	0.4	0.4
93°	0.2	0.3	0.4	0.3	0.3	0.3	0.3	0.3	0.2	0.3	0.3
94°	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.3
95°	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.3
96°	0.2	0.2	0.2	0.3	0.2	0.3	0.2	0.2	0.2	0.2	0.2
97°	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
98°	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
99°	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
100°	0.2	0.2	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
101°	0.2	0.1	0.1	0.1	0.2	0.2	0.2	0.1	0.2	0.1	0.2
102°	0.1	0.1	0.1	0.1	0.2	0.2	0.1	0.1	0.2	0.1	0.1
103°	0.1	0.1	0.1	0.1	0.2	0.2	0.1	0.1	0.2	0.1	0.1
104°	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
105°	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
106°	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
107°	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
108°	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
109°	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
110°	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
111°	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
112°	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
113°	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
114°	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1
115°	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.2	0.1	0.2
116°	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.2	0.1	0.1
117°	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
118°	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
119°	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
120°	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2
121°	0.1	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.3	0.2	0.2
122°	0.1	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
123°	0.1	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.3	0.2	0.2
124°	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.2
125°	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.2
126°	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.2
127°	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.2
128°	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
129°	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
130°	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
131°	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
132°	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.2
133°	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
134°	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3





TEST NUMBER: P284770  
 CATALOG NUMBER: HLB4S06927

**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
135°	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
136°	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
137°	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
138°	0.3	0.3	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
139°	0.3	0.3	0.3	0.3	0.4	0.4	0.3	0.3	0.3	0.3	0.3
140°	0.3	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
141°	0.3	0.3	0.3	0.3	0.3	0.4	0.4	0.4	0.4	0.4	0.4
142°	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
143°	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
144°	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
145°	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
146°	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
147°	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.5	0.4	0.4
148°	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.5	0.4	0.4
149°	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.5	0.4	0.4
150°	0.4	0.4	0.4	0.4	0.4	0.5	0.4	0.4	0.4	0.4	0.4
151°	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
152°	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
153°	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
154°	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
155°	0.4	0.4	0.4	0.4	0.4	0.4	0.5	0.5	0.5	0.5	0.5
156°	0.4	0.4	0.4	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
157°	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
158°	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
159°	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
160°	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
161°	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
162°	0.5	0.5	0.5	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
163°	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
164°	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
165°	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
166°	0.6	0.6	0.6	0.6	0.6	0.6	0.7	0.6	0.6	0.6	0.7
167°	0.7	0.6	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
168°	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
169°	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
170°	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
171°	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
172°	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
173°	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
174°	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
175°	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
176°	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
177°	0.8	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
178°	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
179°	0.8	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7



TEST NUMBER: P284770  
CATALOG NUMBER: HLB4S06927

**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
180°	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7



TEST NUMBER: P284770  
 CATALOG NUMBER: HLB4S06927

**CANDELA DISTRIBUTION (continued):**

	247.5°	270°	292.5°	315°	337.5°	360°
0°	243.4	243.4	243.4	243.4	243.4	243.4
1°	243.7	243.2	243.0	243.0	243.3	244.2
2°	243.2	243.2	242.9	243.4	243.4	244.2
3°	243.0	243.2	243.4	243.4	243.6	243.8
4°	242.7	243.1	242.9	242.8	242.3	242.4
5°	242.5	242.9	242.9	241.8	242.3	242.1
6°	242.2	243.0	242.9	241.3	242.3	242.7
7°	241.9	242.9	242.5	241.0	241.7	241.5
8°	241.7	241.6	241.3	241.4	240.7	240.3
9°	241.3	241.6	241.3	241.3	239.5	240.2
10°	240.5	241.1	241.2	240.3	239.2	238.7
11°	240.2	240.4	240.0	239.4	239.1	238.8
12°	239.7	239.7	239.7	238.1	238.1	238.4
13°	239.4	239.6	239.2	237.8	237.0	237.3
14°	238.7	239.7	238.5	237.9	236.0	235.7
15°	238.5	239.0	238.4	237.0	234.6	233.7
16°	237.7	239.0	238.3	235.2	233.7	233.5
17°	237.0	237.5	236.7	234.1	232.5	232.7
18°	235.6	236.2	235.9	233.8	231.4	231.1
19°	234.0	235.8	235.3	232.9	229.8	228.8
20°	234.0	235.5	234.5	231.2	228.0	226.7
21°	232.8	234.8	233.0	229.2	226.3	225.3
22°	231.1	233.1	230.9	227.4	224.9	224.5
23°	229.0	231.2	230.3	225.8	223.1	222.1
24°	228.0	230.1	229.6	224.5	221.1	219.7
25°	226.9	229.1	227.4	223.3	219.2	218.6
26°	225.0	227.5	225.2	221.8	217.0	216.3
27°	222.4	226.1	223.7	218.9	214.2	214.1
28°	220.5	224.2	222.4	216.5	211.9	210.6
29°	219.3	222.1	220.0	214.6	209.9	208.0
30°	217.6	220.0	218.0	212.8	207.5	206.0
31°	214.6	217.8	215.7	210.2	205.1	203.6
32°	211.6	214.9	213.3	207.6	202.3	201.0
33°	208.8	212.5	211.0	205.0	199.1	197.2
34°	206.4	210.2	208.0	201.8	195.6	193.8
35°	204.0	208.2	204.5	198.9	193.3	191.0
36°	201.5	205.5	202.1	196.1	190.7	188.3
37°	197.8	201.8	199.5	193.1	186.7	185.3
38°	193.9	198.8	196.0	189.6	182.8	181.6
39°	191.1	195.8	192.4	185.7	180.2	177.6
40°	187.7	192.0	189.6	182.6	177.1	173.7
41°	184.0	187.5	185.0	179.3	172.5	170.4
42°	180.1	184.3	181.3	175.7	168.7	167.3
43°	176.8	181.2	177.5	171.5	165.3	163.5
44°	172.6	176.7	173.9	167.4	162.1	159.6



TEST NUMBER: P284770  
 CATALOG NUMBER: HLB4S06927

**CANDELA DISTRIBUTION (continued):**

	247.5°	270°	292.5°	315°	337.5°	360°
45°	168.3	172.3	170.0	164.1	157.8	155.2
46°	164.8	168.5	166.4	160.4	153.7	151.8
47°	160.1	164.9	162.4	156.0	149.9	147.7
48°	156.2	160.4	157.9	151.7	145.9	144.3
49°	152.0	155.6	153.0	148.0	141.9	140.5
50°	147.5	151.1	148.8	143.6	137.9	136.4
51°	142.8	147.2	144.8	139.0	133.8	132.3
52°	138.3	143.0	140.0	134.9	129.4	128.0
53°	133.8	138.1	135.2	130.3	125.5	123.5
54°	129.1	133.3	130.7	126.1	121.7	119.0
55°	124.5	128.8	126.4	121.4	117.6	114.8
56°	120.1	124.0	121.8	117.0	113.1	110.7
57°	115.7	119.5	117.0	113.1	109.0	107.0
58°	111.3	115.0	112.7	109.1	105.1	102.3
59°	106.8	110.7	108.8	105.1	100.8	98.2
60°	102.4	106.2	104.6	100.6	96.7	94.4
61°	98.3	101.5	100.1	96.5	92.8	90.8
62°	94.5	97.3	95.5	92.3	88.4	87.1
63°	90.2	92.9	91.4	88.2	84.6	83.3
64°	85.7	88.6	87.3	84.1	80.5	79.4
65°	81.2	83.8	82.9	79.8	76.6	75.2
66°	77.2	79.7	78.8	75.8	72.6	71.3
67°	73.4	75.4	74.7	71.8	68.9	67.7
68°	69.3	71.2	70.7	67.8	65.2	63.9
69°	65.1	67.0	66.7	63.8	61.2	59.9
70°	61.2	62.8	62.5	59.9	57.4	56.4
71°	57.5	58.8	58.8	56.2	53.9	52.9
72°	53.7	55.0	55.0	52.5	50.2	49.4
73°	50.0	51.3	51.3	48.9	46.7	45.7
74°	46.4	47.7	47.6	45.3	43.4	42.3
75°	43.0	44.1	43.9	41.7	40.0	39.3
76°	39.3	40.6	40.5	38.4	36.8	36.1
77°	35.7	37.2	37.1	35.1	33.7	32.9
78°	32.1	33.7	33.7	31.8	30.5	29.8
79°	28.8	30.5	30.5	28.6	27.4	26.9
80°	25.8	27.3	27.3	25.6	24.4	23.9
81°	22.8	24.1	24.2	22.7	21.5	20.9
82°	19.9	21.1	21.1	19.8	18.6	18.0
83°	17.0	18.0	18.1	17.0	15.7	15.2
84°	14.2	15.1	15.3	14.4	12.9	12.6
85°	11.5	12.3	12.5	11.8	10.5	10.2
86°	8.9	9.6	9.7	9.2	8.2	7.9
87°	6.3	6.9	7.1	6.8	6.1	5.7
88°	3.9	4.3	4.6	4.4	4.0	3.6
89°	2.1	2.4	2.5	2.3	2.0	1.5



TEST NUMBER: P284770  
 CATALOG NUMBER: HLB4S06927

**CANDELA DISTRIBUTION (continued):**

	247.5°	270°	292.5°	315°	337.5°	360°
90°	0.9	1.2	1.3	1.1	0.8	0.3
91°	0.4	0.3	0.4	0.4	0.4	0.3
92°	0.3	0.3	0.3	0.4	0.4	0.3
93°	0.3	0.3	0.3	0.4	0.3	0.2
94°	0.3	0.3	0.3	0.3	0.3	0.2
95°	0.3	0.3	0.3	0.3	0.2	0.2
96°	0.3	0.2	0.3	0.2	0.2	0.2
97°	0.2	0.2	0.2	0.2	0.2	0.2
98°	0.2	0.2	0.2	0.2	0.2	0.2
99°	0.2	0.2	0.2	0.2	0.2	0.2
100°	0.2	0.2	0.2	0.1	0.2	0.2
101°	0.2	0.2	0.1	0.1	0.1	0.2
102°	0.2	0.2	0.1	0.1	0.1	0.1
103°	0.2	0.2	0.1	0.1	0.1	0.1
104°	0.1	0.1	0.1	0.1	0.1	0.1
105°	0.1	0.1	0.1	0.1	0.1	0.1
106°	0.1	0.1	0.1	0.1	0.1	0.1
107°	0.1	0.1	0.1	0.1	0.1	0.1
108°	0.1	0.1	0.1	0.1	0.1	0.1
109°	0.1	0.1	0.1	0.1	0.1	0.1
110°	0.1	0.1	0.1	0.1	0.1	0.1
111°	0.1	0.1	0.1	0.1	0.1	0.1
112°	0.1	0.1	0.1	0.1	0.1	0.1
113°	0.1	0.1	0.1	0.1	0.1	0.1
114°	0.2	0.1	0.1	0.1	0.1	0.1
115°	0.1	0.1	0.1	0.1	0.1	0.1
116°	0.2	0.1	0.1	0.1	0.1	0.1
117°	0.1	0.1	0.1	0.1	0.1	0.1
118°	0.1	0.1	0.1	0.1	0.1	0.1
119°	0.1	0.1	0.1	0.1	0.1	0.1
120°	0.2	0.2	0.1	0.1	0.1	0.1
121°	0.3	0.2	0.2	0.2	0.2	0.1
122°	0.3	0.3	0.3	0.2	0.2	0.1
123°	0.3	0.2	0.2	0.2	0.2	0.1
124°	0.2	0.2	0.2	0.2	0.2	0.1
125°	0.2	0.2	0.2	0.2	0.2	0.1
126°	0.2	0.2	0.2	0.2	0.2	0.1
127°	0.2	0.2	0.2	0.2	0.2	0.1
128°	0.2	0.2	0.2	0.2	0.2	0.1
129°	0.2	0.2	0.2	0.2	0.2	0.1
130°	0.2	0.2	0.2	0.2	0.2	0.1
131°	0.3	0.3	0.3	0.2	0.2	0.2
132°	0.3	0.2	0.2	0.2	0.2	0.2
133°	0.3	0.3	0.3	0.2	0.2	0.2
134°	0.3	0.3	0.3	0.3	0.2	0.2



TEST NUMBER: P284770  
 CATALOG NUMBER: HLB4S06927

**CANDELA DISTRIBUTION (continued):**

	247.5°	270°	292.5°	315°	337.5°	360°
135°	0.3	0.3	0.3	0.3	0.3	0.2
136°	0.3	0.3	0.3	0.3	0.3	0.2
137°	0.3	0.3	0.3	0.3	0.3	0.3
138°	0.4	0.4	0.4	0.3	0.3	0.3
139°	0.4	0.4	0.3	0.3	0.3	0.3
140°	0.4	0.4	0.4	0.4	0.3	0.3
141°	0.4	0.3	0.3	0.3	0.3	0.3
142°	0.4	0.4	0.4	0.4	0.4	0.3
143°	0.4	0.4	0.4	0.4	0.4	0.4
144°	0.4	0.4	0.4	0.4	0.4	0.4
145°	0.4	0.4	0.4	0.4	0.4	0.4
146°	0.4	0.4	0.4	0.4	0.4	0.4
147°	0.4	0.4	0.4	0.4	0.4	0.4
148°	0.4	0.4	0.4	0.4	0.4	0.4
149°	0.4	0.4	0.4	0.4	0.4	0.4
150°	0.5	0.4	0.4	0.4	0.4	0.4
151°	0.4	0.4	0.4	0.4	0.4	0.4
152°	0.4	0.4	0.4	0.4	0.4	0.4
153°	0.4	0.4	0.4	0.4	0.4	0.4
154°	0.4	0.4	0.4	0.4	0.4	0.4
155°	0.4	0.4	0.4	0.4	0.4	0.4
156°	0.5	0.5	0.5	0.4	0.4	0.4
157°	0.5	0.5	0.5	0.5	0.5	0.5
158°	0.5	0.5	0.5	0.5	0.5	0.5
159°	0.5	0.5	0.5	0.5	0.5	0.5
160°	0.5	0.5	0.5	0.5	0.5	0.5
161°	0.5	0.5	0.5	0.5	0.5	0.5
162°	0.6	0.6	0.6	0.5	0.5	0.5
163°	0.6	0.6	0.6	0.6	0.6	0.6
164°	0.6	0.6	0.6	0.6	0.6	0.6
165°	0.6	0.6	0.6	0.6	0.6	0.6
166°	0.6	0.6	0.6	0.6	0.6	0.6
167°	0.7	0.7	0.7	0.7	0.6	0.7
168°	0.7	0.7	0.7	0.7	0.7	0.7
169°	0.7	0.7	0.7	0.7	0.7	0.7
170°	0.7	0.7	0.7	0.7	0.7	0.7
171°	0.7	0.7	0.7	0.7	0.7	0.7
172°	0.7	0.7	0.7	0.7	0.7	0.7
173°	0.7	0.7	0.7	0.7	0.7	0.7
174°	0.7	0.7	0.7	0.7	0.7	0.7
175°	0.7	0.7	0.7	0.7	0.7	0.7
176°	0.7	0.7	0.7	0.7	0.7	0.7
177°	0.7	0.7	0.7	0.7	0.7	0.8
178°	0.7	0.7	0.7	0.7	0.7	0.7
179°	0.7	0.7	0.7	0.7	0.7	0.8



TEST NUMBER: P284770  
CATALOG NUMBER: HLB4S06927

**CANDELA DISTRIBUTION (continued):**

	247.5°	270°	292.5°	315°	337.5°	360°
180°	0.7	0.7	0.7	0.7	0.7	0.7

(END OF REPORT)