

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: P284772

Luminaire Tested: **HLB4S06935**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P284772
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: HLB4S06935
Description: 4 IN SQUARE HALO BLADE (600 LUMEN) - 3500K
Light Source: -
Ballast/Driver: -

Summary

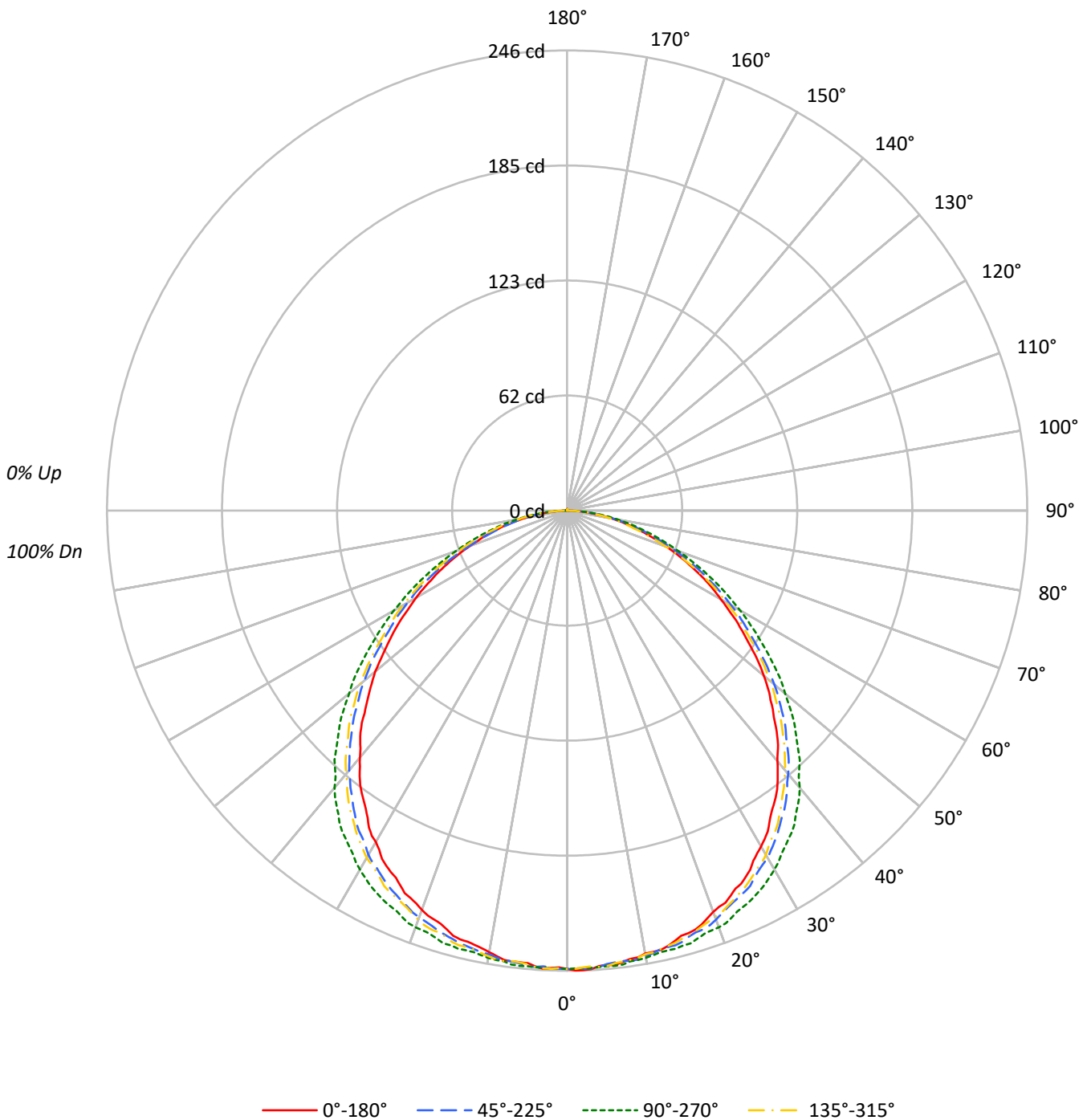
Lumens per Lamp: N/A
Luminaire Lumens: 689.5 lumens
Efficiency: N/A
Efficacy: 68.3 lumens/watt
Spacing Criteria (0/90/45): 1.25 / 1.33 / 1.38
Luminous Opening: Circular (Dia: 0.33' x H: 0')
CIE Type: Direct

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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CATALOG NUMBER: HLB4S06935

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°	30111	30111	30111	30111
5°	30054	30152	29943	30152
10°	29990	30289	29902	30289
15°	29927	30601	29940	30601
20°	29847	30998	29704	30998
25°	29835	31272	29361	31272
30°	29422	31422	29024	31422
35°	28840	31435	28436	31435
40°	28049	31016	27648	31016
45°	27138	30144	26617	30144
50°	26242	29070	25611	29070
55°	24760	27780	24246	27780
60°	23342	26266	22924	26266
65°	22006	24506	21541	24506
70°	20367	22737	19864	22737
75°	18749	21075	18275	21075
80°	17050	19456	16201	19456
85°	14378	17479	13250	17479



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	23.2	3.4
10°-20°	67.2	9.7
20°-30°	103.2	15.0
30°-40°	124.7	18.1
40°-50°	126.3	18.3
50°-60°	108.7	15.8
60°-70°	78.5	11.4
70°-80°	43.5	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°	193.6	28.1
0°-40°	318.3	46.2
0°-60°	553.3	80.2
0°-90°	687.8	99.8
90°-120°	0.5	0.1
90°-150°	1.2	0.2
90°-180°	2.0	0.3
0°-180°	689.5	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	245	245	245	245	245	
5°	244	244	243	244	244	23
15°	235	241	235	241	235	67
25°	220	231	217	231	220	101
35°	192	210	190	210	192	120
45°	156	174	153	174	156	121
55°	116	130	113	130	116	104
65°	76	84	74	84	76	75
75°	40	44	38	44	40	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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 CATALOG NUMBER: HLB4S06935

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
0°	245.1	245.1	245.1	245.1	245.1	245.1	245.1	245.1	245.1	245.1	245.1
1°	245.9	245.0	244.7	244.7	244.8	245.3	245.0	244.8	244.2	244.8	245.0
2°	245.9	245.0	245.0	244.5	244.8	244.8	244.3	245.0	244.6	245.0	244.3
3°	245.5	245.3	245.1	245.0	244.8	244.7	244.0	244.1	245.3	244.1	244.0
4°	244.1	243.9	244.5	244.6	244.7	244.4	244.5	243.6	244.2	243.6	244.5
5°	243.7	243.9	243.4	244.5	244.5	244.2	244.5	244.2	242.8	244.2	244.5
6°	244.4	243.9	243.0	244.6	244.7	243.9	243.4	243.8	242.8	243.8	243.4
7°	243.1	243.4	242.6	244.2	244.5	243.6	242.8	242.6	242.8	242.6	242.8
8°	242.0	242.3	243.1	243.0	243.3	243.4	242.6	241.8	242.6	241.8	242.6
9°	241.9	241.2	243.0	242.9	243.2	243.0	242.0	241.2	241.1	241.2	242.0
10°	240.4	240.8	242.0	242.8	242.8	242.2	240.8	240.6	239.7	240.6	240.8
11°	240.4	240.7	241.0	241.6	242.0	241.8	240.6	240.0	238.4	240.0	240.6
12°	240.1	239.7	239.8	241.4	241.3	241.4	239.7	238.5	237.4	238.5	239.7
13°	239.0	238.6	239.5	240.9	241.2	241.0	239.0	237.3	236.5	237.3	239.0
14°	237.3	237.6	239.5	240.1	241.3	240.4	238.2	236.8	236.3	236.8	238.2
15°	235.3	236.3	238.6	240.0	240.6	240.1	237.1	236.2	235.4	236.2	237.1
16°	235.1	235.3	236.8	239.9	240.6	239.3	236.1	234.1	233.1	234.1	236.1
17°	234.3	234.1	235.7	238.3	239.1	238.6	235.0	232.4	231.1	232.4	235.0
18°	232.7	233.0	235.4	237.5	237.8	237.2	233.5	230.8	229.9	230.8	233.5
19°	230.4	231.4	234.5	236.9	237.4	235.6	232.4	230.3	229.0	230.3	232.4
20°	228.3	229.5	232.7	236.1	237.1	235.6	231.3	228.9	227.2	228.9	231.3
21°	226.8	227.8	230.8	234.6	236.4	234.4	230.2	226.5	225.0	226.5	230.2
22°	226.0	226.4	228.9	232.5	234.7	232.7	228.3	224.1	223.4	224.1	228.3
23°	223.6	224.6	227.4	231.9	232.8	230.6	226.7	222.4	222.2	222.4	226.7
24°	221.2	222.6	226.0	231.2	231.7	229.5	224.8	221.1	219.3	221.1	224.8
25°	220.1	220.7	224.8	229.0	230.7	228.5	223.2	218.8	216.6	218.8	223.2
26°	217.8	218.5	223.3	226.7	229.1	226.5	221.2	215.6	215.0	215.6	221.2
27°	215.5	215.7	220.4	225.2	227.6	224.0	218.9	214.1	213.0	214.1	218.9
28°	212.1	213.3	218.0	223.9	225.8	222.0	216.6	211.7	210.9	211.7	216.6
29°	209.5	211.4	216.1	221.5	223.7	220.8	214.9	208.8	207.3	208.8	214.9
30°	207.4	208.9	214.3	219.5	221.5	219.0	212.6	206.5	204.6	206.5	212.6
31°	205.0	206.5	211.7	217.1	219.3	216.1	209.1	204.0	202.8	204.0	209.1
32°	202.4	203.7	209.0	214.7	216.4	213.0	206.5	200.3	199.9	200.3	206.5
33°	198.5	200.5	206.4	212.5	214.0	210.3	204.3	197.2	195.8	197.2	204.3
34°	195.1	196.9	203.2	209.4	211.7	207.8	201.6	194.7	192.5	194.7	201.6
35°	192.3	194.7	200.2	205.9	209.6	205.4	198.0	191.8	189.6	191.8	198.0
36°	189.6	192.0	197.5	203.5	206.9	202.9	194.7	188.4	186.8	188.4	194.7
37°	186.6	188.0	194.4	200.9	203.2	199.1	191.2	185.3	183.8	185.3	191.2
38°	182.9	184.1	190.9	197.4	200.2	195.3	188.1	182.2	180.2	182.2	188.1
39°	178.9	181.4	187.0	193.7	197.2	192.4	184.6	178.5	176.1	178.5	184.6
40°	174.9	178.3	183.8	190.9	193.4	189.0	181.3	174.4	172.4	174.4	181.3
41°	171.5	173.7	180.5	186.2	188.8	185.2	177.4	170.4	168.4	170.4	177.4
42°	168.5	169.9	176.9	182.5	185.5	181.3	173.8	166.6	165.4	166.6	173.8
43°	164.7	166.5	172.7	178.7	182.4	178.0	170.0	163.5	162.0	163.5	170.0
44°	160.7	163.2	168.5	175.0	177.9	173.8	166.0	159.6	158.0	159.6	166.0



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
45°	156.2	158.9	165.2	171.2	173.5	169.5	162.3	155.4	153.2	155.4	162.3
46°	152.8	154.8	161.5	167.5	169.7	166.0	158.4	151.5	149.2	151.5	158.4
47°	148.7	151.0	157.0	163.5	166.0	161.2	153.7	147.9	145.3	147.9	153.7
48°	145.3	146.9	152.7	158.9	161.5	157.3	149.8	143.9	141.4	143.9	149.8
49°	141.4	142.8	149.0	154.0	156.7	153.0	146.0	139.5	137.6	139.5	146.0
50°	137.3	138.9	144.6	149.8	152.1	148.5	141.6	135.3	134.0	135.3	141.6
51°	133.2	134.7	140.0	145.8	148.2	143.8	137.2	131.6	129.4	131.6	137.2
52°	128.9	130.3	135.8	141.0	143.9	139.2	133.2	127.1	125.0	127.1	133.2
53°	124.3	126.4	131.2	136.2	139.0	134.7	128.8	122.7	120.9	122.7	128.8
54°	119.8	122.6	126.9	131.6	134.2	130.0	123.9	118.5	117.1	118.5	123.9
55°	115.6	118.4	122.3	127.2	129.7	125.3	119.4	114.6	113.2	114.6	119.4
56°	111.5	113.8	117.8	122.6	124.9	120.9	115.1	110.3	109.2	110.3	115.1
57°	107.7	109.7	113.8	117.8	120.4	116.5	111.1	106.4	105.0	106.4	111.1
58°	103.0	105.9	109.8	113.5	115.8	112.1	107.3	102.3	100.7	102.3	107.3
59°	98.9	101.5	105.8	109.5	111.5	107.5	102.6	98.4	96.9	98.4	102.6
60°	95.0	97.4	101.3	105.3	106.9	103.1	98.4	94.1	93.3	94.1	98.4
61°	91.4	93.4	97.2	100.7	102.2	99.0	94.5	90.6	89.6	90.6	94.5
62°	87.7	89.0	93.0	96.1	98.0	95.1	90.6	86.3	85.4	86.3	90.6
63°	83.8	85.2	88.8	92.0	93.5	90.8	86.2	81.9	81.3	81.9	86.2
64°	79.9	81.0	84.6	87.9	89.2	86.2	81.9	78.0	77.8	78.0	81.9
65°	75.7	77.2	80.4	83.5	84.3	81.8	77.7	74.1	74.1	74.1	77.7
66°	71.7	73.1	76.4	79.4	80.2	77.8	73.3	69.9	70.2	69.9	73.3
67°	68.2	69.4	72.3	75.3	75.9	73.9	69.1	65.7	66.5	65.7	69.1
68°	64.4	65.6	68.2	71.2	71.7	69.8	64.8	61.6	62.7	61.6	64.8
69°	60.3	61.6	64.2	67.1	67.4	65.5	60.5	57.7	59.0	57.7	60.5
70°	56.7	57.8	60.3	62.9	63.3	61.6	56.2	53.9	55.3	53.9	56.2
71°	53.3	54.2	56.6	59.2	59.2	57.9	52.1	50.1	51.7	50.1	52.1
72°	49.7	50.5	52.9	55.4	55.3	54.1	48.2	46.4	48.4	46.4	48.2
73°	46.0	47.0	49.2	51.6	51.6	50.4	44.2	42.8	45.2	42.8	44.2
74°	42.6	43.7	45.6	47.9	48.0	46.7	40.6	39.3	41.9	39.3	40.6
75°	39.5	40.3	42.0	44.2	44.4	43.3	37.0	36.0	38.5	36.0	37.0
76°	36.3	37.0	38.7	40.8	40.9	39.6	34.3	32.9	35.4	32.9	34.3
77°	33.1	33.9	35.4	37.3	37.4	35.9	31.3	30.1	32.1	30.1	31.3
78°	30.0	30.7	32.1	34.0	34.0	32.4	28.6	27.2	28.9	27.2	28.6
79°	27.1	27.6	28.8	30.7	30.7	29.0	25.7	24.5	25.8	24.5	25.7
80°	24.1	24.5	25.8	27.5	27.5	26.0	22.9	21.7	22.9	21.7	22.9
81°	21.1	21.7	22.8	24.4	24.3	23.0	20.3	19.0	20.0	19.0	20.3
82°	18.1	18.7	19.9	21.2	21.2	20.1	17.7	16.3	17.1	16.3	17.7
83°	15.3	15.8	17.1	18.2	18.2	17.1	15.2	13.6	14.3	13.6	15.2
84°	12.7	13.0	14.5	15.4	15.2	14.3	12.7	11.1	11.7	11.1	12.7
85°	10.2	10.5	11.9	12.6	12.4	11.6	10.2	8.9	9.4	8.9	10.2
86°	8.0	8.3	9.3	9.8	9.7	8.9	7.8	6.7	7.3	6.7	7.8
87°	5.8	6.1	6.8	7.2	7.0	6.4	5.5	4.8	5.2	4.8	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	2.6	2.4	2.1	1.6	1.2	1.2	1.2	1.6



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 CATALOG NUMBER: HLB4S06935

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	1.0	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: P284772
 CATALOG NUMBER: HLB4S06935

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: P284772
CATALOG NUMBER: HLB4S06935

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: P284772
 CATALOG NUMBER: HLB4S06935

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
0°	245.1	245.1	245.1	245.1	245.1	245.1
1°	245.3	244.8	244.7	244.7	245.0	245.9
2°	244.8	244.8	244.5	245.0	245.0	245.9
3°	244.7	244.8	245.0	245.1	245.3	245.5
4°	244.4	244.7	244.6	244.5	243.9	244.1
5°	244.2	244.5	244.5	243.4	243.9	243.7
6°	243.9	244.7	244.6	243.0	243.9	244.4
7°	243.6	244.5	244.2	242.6	243.4	243.1
8°	243.4	243.3	243.0	243.1	242.3	242.0
9°	243.0	243.2	242.9	243.0	241.2	241.9
10°	242.2	242.8	242.8	242.0	240.8	240.4
11°	241.8	242.0	241.6	241.0	240.7	240.4
12°	241.4	241.3	241.4	239.8	239.7	240.1
13°	241.0	241.2	240.9	239.5	238.6	239.0
14°	240.4	241.3	240.1	239.5	237.6	237.3
15°	240.1	240.6	240.0	238.6	236.3	235.3
16°	239.3	240.6	239.9	236.8	235.3	235.1
17°	238.6	239.1	238.3	235.7	234.1	234.3
18°	237.2	237.8	237.5	235.4	233.0	232.7
19°	235.6	237.4	236.9	234.5	231.4	230.4
20°	235.6	237.1	236.1	232.7	229.5	228.3
21°	234.4	236.4	234.6	230.8	227.8	226.8
22°	232.7	234.7	232.5	228.9	226.4	226.0
23°	230.6	232.8	231.9	227.4	224.6	223.6
24°	229.5	231.7	231.2	226.0	222.6	221.2
25°	228.5	230.7	229.0	224.8	220.7	220.1
26°	226.5	229.1	226.7	223.3	218.5	217.8
27°	224.0	227.6	225.2	220.4	215.7	215.5
28°	222.0	225.8	223.9	218.0	213.3	212.1
29°	220.8	223.7	221.5	216.1	211.4	209.5
30°	219.0	221.5	219.5	214.3	208.9	207.4
31°	216.1	219.3	217.1	211.7	206.5	205.0
32°	213.0	216.4	214.7	209.0	203.7	202.4
33°	210.3	214.0	212.5	206.4	200.5	198.5
34°	207.8	211.7	209.4	203.2	196.9	195.1
35°	205.4	209.6	205.9	200.2	194.7	192.3
36°	202.9	206.9	203.5	197.5	192.0	189.6
37°	199.1	203.2	200.9	194.4	188.0	186.6
38°	195.3	200.2	197.4	190.9	184.1	182.9
39°	192.4	197.2	193.7	187.0	181.4	178.9
40°	189.0	193.4	190.9	183.8	178.3	174.9
41°	185.2	188.8	186.2	180.5	173.7	171.5
42°	181.3	185.5	182.5	176.9	169.9	168.5
43°	178.0	182.4	178.7	172.7	166.5	164.7
44°	173.8	177.9	175.0	168.5	163.2	160.7



TEST NUMBER: P284772
 CATALOG NUMBER: HLB4S06935

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
45°	169.5	173.5	171.2	165.2	158.9	156.2
46°	166.0	169.7	167.5	161.5	154.8	152.8
47°	161.2	166.0	163.5	157.0	151.0	148.7
48°	157.3	161.5	158.9	152.7	146.9	145.3
49°	153.0	156.7	154.0	149.0	142.8	141.4
50°	148.5	152.1	149.8	144.6	138.9	137.3
51°	143.8	148.2	145.8	140.0	134.7	133.2
52°	139.2	143.9	141.0	135.8	130.3	128.9
53°	134.7	139.0	136.2	131.2	126.4	124.3
54°	130.0	134.2	131.6	126.9	122.6	119.8
55°	125.3	129.7	127.2	122.3	118.4	115.6
56°	120.9	124.9	122.6	117.8	113.8	111.5
57°	116.5	120.4	117.8	113.8	109.7	107.7
58°	112.1	115.8	113.5	109.8	105.9	103.0
59°	107.5	111.5	109.5	105.8	101.5	98.9
60°	103.1	106.9	105.3	101.3	97.4	95.0
61°	99.0	102.2	100.7	97.2	93.4	91.4
62°	95.1	98.0	96.1	93.0	89.0	87.7
63°	90.8	93.5	92.0	88.8	85.2	83.8
64°	86.2	89.2	87.9	84.6	81.0	79.9
65°	81.8	84.3	83.5	80.4	77.2	75.7
66°	77.8	80.2	79.4	76.4	73.1	71.7
67°	73.9	75.9	75.3	72.3	69.4	68.2
68°	69.8	71.7	71.2	68.2	65.6	64.4
69°	65.5	67.4	67.1	64.2	61.6	60.3
70°	61.6	63.3	62.9	60.3	57.8	56.7
71°	57.9	59.2	59.2	56.6	54.2	53.3
72°	54.1	55.3	55.4	52.9	50.5	49.7
73°	50.4	51.6	51.6	49.2	47.0	46.0
74°	46.7	48.0	47.9	45.6	43.7	42.6
75°	43.3	44.4	44.2	42.0	40.3	39.5
76°	39.6	40.9	40.8	38.7	37.0	36.3
77°	35.9	37.4	37.3	35.4	33.9	33.1
78°	32.4	34.0	34.0	32.1	30.7	30.0
79°	29.0	30.7	30.7	28.8	27.6	27.1
80°	26.0	27.5	27.5	25.8	24.5	24.1
81°	23.0	24.3	24.4	22.8	21.7	21.1
82°	20.1	21.2	21.2	19.9	18.7	18.1
83°	17.1	18.2	18.2	17.1	15.8	15.3
84°	14.3	15.2	15.4	14.5	13.0	12.7
85°	11.6	12.4	12.6	11.9	10.5	10.2
86°	8.9	9.7	9.8	9.3	8.3	8.0
87°	6.4	7.0	7.2	6.8	6.1	5.8
88°	3.9	4.3	4.6	4.4	4.0	3.6
89°	2.1	2.4	2.6	2.3	2.0	1.5



TEST NUMBER: P284772
 CATALOG NUMBER: HLB4S06935

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
90°	1.0	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: P284772
 CATALOG NUMBER: HLB4S06935

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: P284772
CATALOG NUMBER: HLB4S06935

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)