

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: P294441

Luminaire Tested: **RL4069S1EWHDM-4000K**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P294441
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (A1809075A001)
Test Lab: EVERFINE
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: HALO
Catalog Number: RL4069S1EWHDM-4000K
Description: 4 IN HALO RL DIRECT MOUNT (600 LUMEN) - 4000K
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: 644.87 (1 lamp)
Luminaire Lumens: 665.5 lumens
Efficiency: 103.2%
Efficacy: 76.5 lumens/watt
Spacing Criteria (0/90/45): 1.15 / 1.15 / 1.19
Luminous Opening: Circular (Dia: 0.33' x H: 0')
CIE Type: Direct

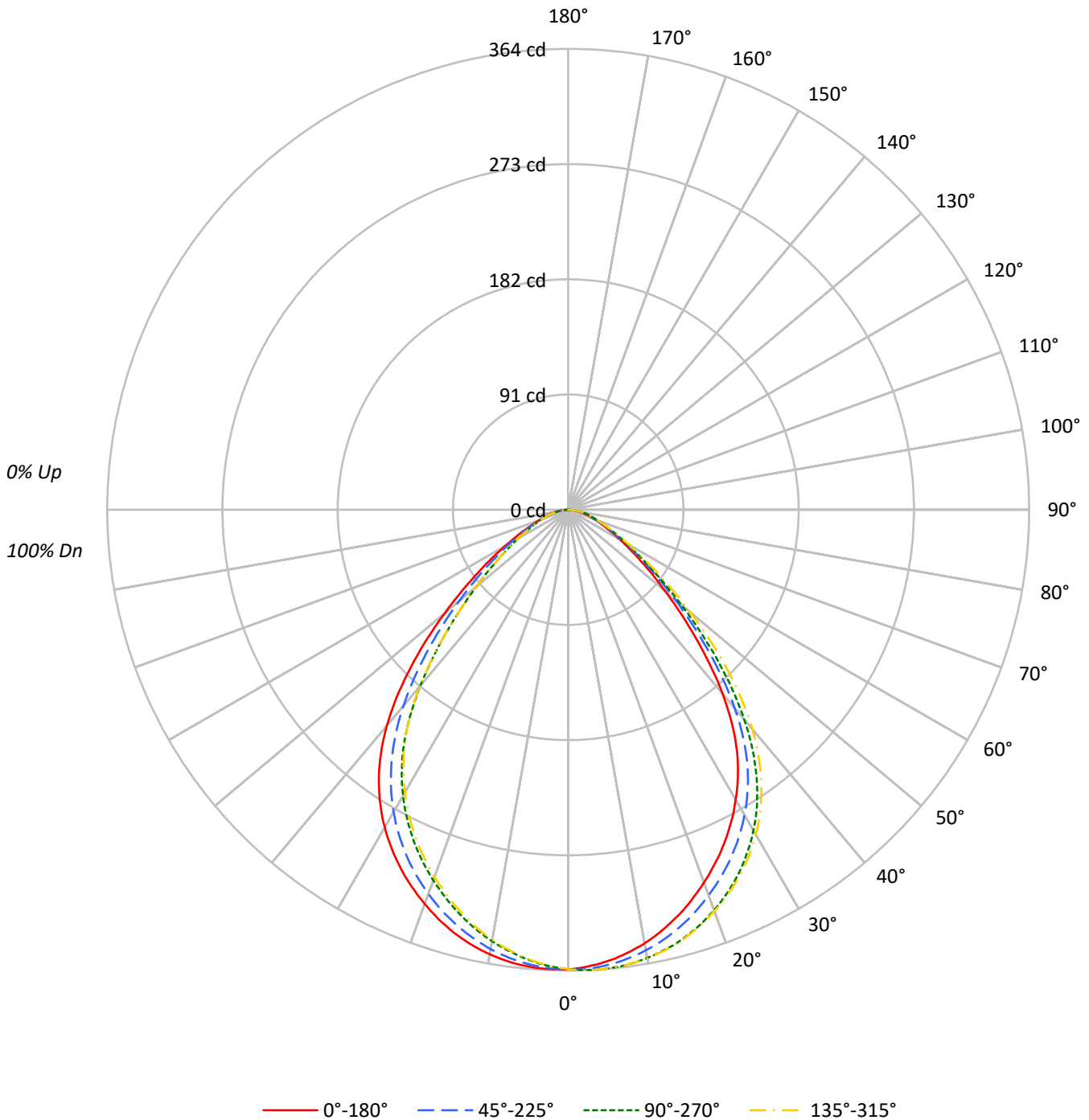
Input Watts (W): 8.7
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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CATALOG NUMBER: RL4069S1EWHDM-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	50	30	10	50	30	10	0		
RCR																										
0	123	123	123	123	120	120	120	120	115	115	115	110	110	110	105	105	105	103					103			
1	115	111	107	104	112	108	105	102	104	102	99	100	98	96	97	95	93	91					91			
2	106	99	94	89	104	98	92	88	94	90	86	91	87	84	88	85	82	80					80			
3	99	90	83	77	96	88	82	76	85	80	75	82	78	74	80	76	73	71					71			
4	92	81	73	68	89	80	73	67	77	71	66	75	70	65	73	68	65	63					63			
5	85	74	66	60	83	73	65	60	71	64	59	69	63	58	67	62	58	56					56			
6	79	67	59	54	78	66	59	53	65	58	53	63	57	52	62	56	52	50					50			
7	74	62	54	48	72	61	53	48	60	53	48	58	52	47	57	51	47	45					45			
8	69	57	49	44	68	56	49	44	55	48	43	54	48	43	53	47	43	41					41			
9	65	53	45	40	64	52	45	40	51	44	40	50	44	39	49	43	39	38					38			
10	61	49	42	37	60	48	41	37	47	41	36	47	41	36	46	40	36	34					34			

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	44596	44596	44596	44596
5°	44137	44852	44668	44014
10°	43388	44860	44485	43176
15°	42302	44605	44045	42074
20°	40986	44006	43313	40725
25°	39460	43065	42388	39121
30°	37536	41494	41097	37011
35°	34825	38919	39099	33895
40°	30391	34673	35715	29124
45°	24602	28667	30509	23403
50°	19113	22209	24388	18195
55°	14779	16792	18720	14115
60°	11597	13022	14226	11204
65°	9331	10523	10988	9273
70°	7938	8908	8729	8118
75°	7120	8259	7737	7642
80°	6226	7924	7358	6509
85°	3665	6766	5920	3524



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ZONAL LUMENS:

Zone	Lumens	% Fixture	% Lamp
0°-10°	34.2	5.1	5.3
10°-20°	95.8	14.4	14.9
20°-30°	139.0	20.9	21.6
30°-40°	151.9	22.8	23.6
40°-50°	119.5	18.0	18.5
50°-60°	68.7	10.3	10.7
60°-70°	34.9	5.3	5.4
70°-80°	17.2	2.6	2.7
80°-90°	4.3	0.6	0.7
90°-100°	0.0	0.0	0.0
100°-110°	0.0	0.0	0.0
110°-120°	0.0	0.0	0.0
120°-130°	0.0	0.0	0.0
130°-140°	0.0	0.0	0.0
140°-150°	0.0	0.0	0.0
150°-160°	0.0	0.0	0.0
160°-170°	0.0	0.0	0.0
170°-180°	0.0	0.0	0.0
0°-30°	269.0	40.4	41.7
0°-40°	420.9	63.2	65.3
0°-60°	609.1	91.5	94.5
0°-90°	665.5	100.0	103.2
90°-120°	0.0	0.0	0.0
90°-150°	0.0	0.0	0.0
90°-180°	0.0	0.0	0.0
0°-180°	665.5	100.0	103.2

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	363	363	363	363	363	
5°	358	364	362	357	358	34
15°	333	351	346	331	333	94
25°	291	318	313	289	291	134
35°	232	260	261	226	232	144
45°	142	165	176	135	142	109
55°	69	78	87	66	69	63
65°	32	36	38	32	32	33
75°	15	17	16	16	15	16
85°	3	5	4	2	3	4
90°	0	0	0	0	0	



TEST NUMBER: P294441

CATALOG NUMBER: RL4069S1EWHDM-4000K

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
0°	363.0	363.0	363.0	363.0	363.0	363.0	363.0	363.0	363.0	363.0	363.0
0.5°	362.7	362.8	363.2	364.2	363.2	363.2	363.1	363.0	363.1	363.0	363.2
1°	362.4	362.6	363.2	364.3	363.5	363.5	363.4	363.2	363.2	363.0	363.0
1.5°	362.0	362.4	363.2	364.3	363.7	363.7	363.7	363.4	363.2	363.0	362.9
2°	361.5	362.2	363.0	364.3	363.9	363.9	363.8	363.5	363.2	362.9	362.7
2.5°	361.1	361.8	362.8	364.2	364.0	364.0	364.0	363.6	363.1	362.8	362.4
3°	360.5	361.5	362.6	364.1	364.0	364.1	364.0	363.6	363.1	362.5	362.1
3.5°	359.9	361.0	362.2	363.9	364.0	364.1	364.0	363.6	362.9	362.2	361.7
4°	359.3	360.5	361.8	363.7	364.0	364.1	363.9	363.5	362.8	361.9	361.3
4.5°	358.6	360.0	361.4	363.4	363.9	364.1	363.9	363.3	362.5	361.5	360.8
5°	357.9	359.4	361.0	363.1	363.7	364.0	363.7	363.1	362.2	361.1	360.3
5.5°	357.1	358.7	360.4	362.7	363.5	363.8	363.5	362.8	361.9	360.7	359.7
6°	356.3	358.1	359.8	362.3	363.3	363.6	363.3	362.5	361.5	360.1	359.1
6.5°	355.4	357.3	359.2	361.8	363.0	363.3	363.0	362.2	361.1	359.6	358.4
7°	354.4	356.5	358.5	361.3	362.6	363.0	362.7	361.7	360.6	358.9	357.7
7.5°	353.4	355.7	357.8	360.7	362.2	362.7	362.3	361.2	360.0	358.3	357.0
8°	352.3	354.8	357.0	360.0	361.8	362.2	361.9	360.7	359.4	357.6	356.1
8.5°	351.2	353.8	356.2	359.4	361.3	361.8	361.4	360.2	358.8	356.8	355.2
9°	350.1	352.8	355.3	358.6	360.7	361.2	360.9	359.6	358.1	356.0	354.3
9.5°	349.0	351.7	354.4	357.9	360.2	360.7	360.3	358.9	357.4	355.1	353.4
10°	347.8	350.6	353.4	357.1	359.6	360.1	359.7	358.2	356.6	354.2	352.4
10.5°	346.5	349.4	352.4	356.2	358.9	359.4	359.1	357.5	355.8	353.2	351.3
11°	345.1	348.2	351.3	355.3	358.2	358.7	358.4	356.7	354.9	352.2	350.2
11.5°	343.7	347.0	350.2	354.3	357.4	357.9	357.6	355.9	354.0	351.2	349.0
12°	342.3	345.6	349.1	353.3	356.6	357.2	356.9	355.0	353.1	350.1	347.8
12.5°	340.8	344.3	347.9	352.2	355.8	356.4	356.1	354.0	352.1	349.0	346.6
13°	339.2	342.9	346.7	351.1	354.9	355.5	355.2	353.1	351.1	347.8	345.3
13.5°	337.6	341.5	345.3	349.9	354.0	354.5	354.3	352.1	349.9	346.7	344.0
14°	336.0	340.0	344.0	348.7	352.9	353.6	353.3	351.0	348.7	345.3	342.7
14.5°	334.3	338.5	342.5	347.4	351.9	352.5	352.3	349.9	347.5	344.0	341.2
15°	332.6	336.9	341.1	346.1	350.7	351.5	351.1	348.8	346.3	342.7	339.8
15.5°	330.9	335.3	339.6	344.7	349.5	350.3	350.0	347.6	345.0	341.2	338.3
16°	329.1	333.6	338.1	343.3	348.3	349.2	348.8	346.4	343.6	339.7	336.7
16.5°	327.3	331.9	336.5	341.9	347.0	347.9	347.5	345.0	342.2	338.2	335.2
17°	325.4	330.1	334.9	340.4	345.7	346.6	346.2	343.7	340.8	336.6	333.6
17.5°	323.5	328.4	333.2	338.8	344.3	345.2	344.9	342.3	339.4	335.1	331.9
18°	321.5	326.5	331.4	337.3	342.9	343.8	343.5	340.8	337.8	333.4	330.2
18.5°	319.5	324.7	329.7	335.6	341.4	342.4	342.1	339.3	336.2	331.7	328.4
19°	317.5	322.8	327.9	334.0	339.9	340.9	340.6	337.7	334.7	330.0	326.5
19.5°	315.5	320.9	326.1	332.2	338.3	339.3	339.0	336.2	333.0	328.3	324.7
20°	313.5	318.9	324.2	330.4	336.6	337.7	337.4	334.6	331.3	326.5	322.8
20.5°	311.4	317.0	322.3	328.6	335.0	336.1	335.9	332.9	329.6	324.7	320.9
21°	309.3	315.0	320.4	326.8	333.3	334.4	334.3	331.3	327.9	322.8	319.0
21.5°	307.1	313.0	318.4	324.9	331.5	332.6	332.6	329.5	326.1	320.9	317.0
22°	304.9	310.9	316.4	323.0	329.7	330.8	330.8	327.9	324.3	319.1	314.9



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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°	302.7	308.8	314.4	321.1	327.8	329.0	329.0	326.1	322.5	317.1	312.9
23°	300.5	306.6	312.4	319.0	325.9	327.1	327.2	324.3	320.6	315.2	310.7
23.5°	298.2	304.4	310.3	317.0	323.9	325.2	325.4	322.4	318.7	313.1	308.6
24°	295.9	302.2	308.1	314.9	321.9	323.2	323.5	320.6	316.8	311.0	306.4
24.5°	293.5	299.9	305.9	312.7	319.8	321.1	321.6	318.6	314.8	308.8	304.1
25°	291.1	297.6	303.6	310.4	317.7	319.0	319.6	316.5	312.7	306.6	301.8
25.5°	288.6	295.2	301.3	308.1	315.4	316.8	317.5	314.5	310.6	304.4	299.4
26°	286.1	292.8	299.0	305.8	313.1	314.6	315.4	312.4	308.5	302.1	296.9
26.5°	283.6	290.3	296.6	303.4	310.7	312.3	313.2	310.3	306.3	299.8	294.4
27°	281.1	287.8	294.2	300.9	308.3	309.9	310.9	308.1	304.1	297.6	291.9
27.5°	278.5	285.3	291.7	298.5	305.9	307.5	308.6	305.9	301.8	295.1	289.4
28°	275.8	282.7	289.2	295.9	303.4	305.0	306.3	303.6	299.5	292.7	286.8
28.5°	273.1	280.1	286.6	293.3	300.8	302.3	303.9	301.3	297.1	290.1	284.1
29°	270.4	277.5	283.9	290.6	298.1	299.7	301.4	298.9	294.7	287.6	281.3
29.5°	267.4	274.7	281.2	287.8	295.3	296.9	298.8	296.5	292.2	285.0	278.5
30°	264.6	271.9	278.4	284.9	292.5	294.2	296.3	294.0	289.7	282.4	275.6
30.5°	261.7	269.0	275.6	282.0	289.7	291.3	293.6	291.5	287.1	279.7	272.7
31°	258.8	266.2	272.7	279.1	286.8	288.3	291.0	288.9	284.5	277.0	269.8
31.5°	255.6	263.3	269.8	276.1	283.7	285.3	288.1	286.1	281.8	274.0	266.7
32°	252.5	260.2	266.7	272.9	280.6	282.1	285.2	283.3	279.0	271.1	263.6
32.5°	249.3	257.1	263.6	269.7	277.3	278.9	282.2	280.4	276.1	268.1	260.4
33°	246.1	253.9	260.4	266.2	273.9	275.6	279.1	277.4	273.2	265.0	257.1
33.5°	242.7	250.6	257.1	262.8	270.4	272.2	275.9	274.4	270.2	261.9	253.6
34°	239.3	247.2	253.8	259.2	266.8	268.7	272.7	271.3	267.1	258.8	250.2
34.5°	235.8	243.7	250.3	255.6	263.2	265.1	269.4	268.2	263.9	255.5	246.7
35°	232.2	240.1	246.7	251.8	259.5	261.3	265.9	264.8	260.7	252.1	243.1
35.5°	228.4	236.5	243.0	248.1	255.7	257.4	262.4	261.5	257.4	248.7	239.4
36°	224.5	232.7	239.1	244.1	251.7	253.4	258.8	258.0	253.9	245.1	235.6
36.5°	220.5	228.8	235.2	240.0	247.7	249.3	255.0	254.4	250.3	241.5	231.7
37°	216.4	224.7	231.1	235.8	243.5	245.2	251.1	250.8	246.6	237.7	227.8
37.5°	212.3	220.5	227.0	231.5	239.2	240.9	247.2	247.0	242.8	233.9	223.7
38°	207.9	216.3	222.7	227.1	234.8	236.5	243.2	243.2	239.0	230.0	219.6
38.5°	203.4	212.0	218.2	222.5	230.3	232.1	239.2	239.2	235.1	225.8	215.5
39°	198.9	207.5	213.8	218.0	225.8	227.4	235.0	235.1	231.1	221.6	211.4
39.5°	194.2	202.9	209.1	213.3	221.0	222.6	230.7	230.9	227.0	217.4	206.9
40°	189.5	198.3	204.5	208.5	216.2	217.8	226.2	226.7	222.7	213.1	202.5
40.5°	184.8	193.4	199.7	203.6	211.3	212.9	221.6	222.2	218.3	208.7	198.0
41°	180.0	188.6	194.8	198.6	206.3	208.0	216.9	217.8	213.8	204.2	193.4
41.5°	175.2	183.7	189.9	193.5	201.3	203.0	212.2	213.2	209.4	199.7	188.8
42°	170.3	178.8	185.0	188.6	196.3	197.8	207.4	208.5	204.8	195.0	184.3
42.5°	165.4	173.9	179.9	183.5	191.2	192.6	202.4	203.6	200.1	190.3	179.6
43°	160.5	169.0	174.9	178.4	186.0	187.3	197.4	198.8	195.3	185.5	174.9
43.5°	155.7	164.0	169.9	173.3	180.7	182.0	192.3	193.8	190.4	180.7	170.2
44°	150.9	159.1	164.8	168.1	175.4	176.7	187.1	188.8	185.5	175.9	165.5
44.5°	146.2	154.2	159.9	162.9	170.2	171.4	181.9	183.9	180.6	171.2	160.8



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CATALOG NUMBER: RL4069S1EWHDM-4000K

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
45°	141.6	149.3	155.0	157.9	165.0	166.2	176.6	178.8	175.6	166.3	156.2
45.5°	137.0	144.6	150.1	152.9	159.9	160.9	171.4	173.7	170.7	161.5	151.6
46°	132.5	140.0	145.3	148.0	154.7	155.5	166.2	168.5	165.8	156.6	147.1
46.5°	128.1	135.4	140.5	143.1	149.6	150.3	160.9	163.4	160.9	151.7	142.6
47°	123.7	130.8	135.7	138.2	144.6	145.1	155.7	158.4	156.0	147.0	138.0
47.5°	119.4	126.4	131.1	133.5	139.6	140.1	150.6	153.4	151.1	142.3	133.6
48°	115.4	122.0	126.7	128.7	134.7	135.1	145.4	148.4	146.3	137.6	129.4
48.5°	111.4	117.9	122.3	124.2	129.9	130.3	140.4	143.6	141.4	133.2	125.1
49°	107.4	113.8	118.0	119.8	125.3	125.5	135.4	138.8	136.7	128.7	120.8
49.5°	103.8	109.8	113.9	115.4	120.7	120.9	130.6	133.9	132.2	124.2	116.8
50°	100.0	106.0	109.8	111.2	116.2	116.3	125.8	129.1	127.6	119.9	112.9
50.5°	96.4	102.1	105.7	107.1	111.7	111.8	121.1	124.5	123.1	115.7	108.9
51°	92.9	98.5	101.9	103.1	107.5	107.5	116.4	119.9	118.6	111.5	105.2
51.5°	89.7	94.8	98.1	99.1	103.4	103.4	112.1	115.6	114.4	107.5	101.4
52°	86.5	91.4	94.5	95.4	99.4	99.4	107.6	111.2	110.1	103.7	97.8
52.5°	83.3	88.0	91.0	91.7	95.6	95.5	103.4	107.0	106.1	99.9	94.2
53°	80.2	84.7	87.6	88.3	91.9	91.8	99.4	102.9	102.3	96.2	90.9
53.5°	77.3	81.6	84.4	84.8	88.4	88.2	95.4	98.9	98.4	92.5	87.6
54°	74.4	78.6	81.1	81.6	84.9	84.7	91.6	94.9	94.6	89.1	84.4
54.5°	71.6	75.7	77.9	78.4	81.6	81.3	88.0	91.2	91.0	85.7	81.2
55°	69.0	72.8	75.0	75.4	78.4	78.1	84.4	87.6	87.4	82.4	78.1
55.5°	66.5	70.0	72.2	72.4	75.4	75.1	80.9	84.1	84.0	79.2	75.2
56°	64.0	67.3	69.3	69.6	72.5	72.2	77.7	80.7	80.7	76.2	72.4
56.5°	61.7	64.8	66.7	66.9	69.9	69.3	74.6	77.4	77.5	73.3	69.9
57°	59.3	62.4	64.1	64.3	67.1	66.6	71.7	74.2	74.5	70.6	67.1
57.5°	57.0	60.1	61.6	61.9	64.5	63.9	68.6	71.1	71.6	67.6	64.6
58°	54.9	57.8	59.2	59.5	62.0	61.5	65.9	68.3	68.6	65.0	62.1
58.5°	52.8	55.7	56.9	57.2	59.6	59.2	63.2	65.4	65.8	62.4	59.6
59°	51.0	53.5	54.8	54.8	57.4	56.8	60.6	62.8	63.0	60.0	57.4
59.5°	49.1	51.3	52.6	52.6	55.2	54.7	58.1	60.1	60.5	57.6	55.2
60°	47.2	49.4	50.5	50.6	53.0	52.7	55.8	57.7	57.9	55.3	53.0
60.5°	45.5	47.5	48.5	48.7	51.1	50.6	53.7	55.1	55.6	53.0	50.9
61°	43.8	45.7	46.6	46.8	49.1	48.6	51.3	52.8	53.2	50.9	48.9
61.5°	41.9	44.0	44.7	45.1	47.3	46.7	49.2	50.6	51.0	48.8	47.0
62°	40.3	42.2	43.0	43.3	45.5	44.9	47.2	48.4	48.8	46.8	45.2
62.5°	38.9	40.6	41.3	41.6	43.7	43.3	45.3	46.4	46.9	44.9	43.5
63°	37.5	38.9	39.7	39.9	42.0	41.7	43.5	44.5	44.9	43.1	41.7
63.5°	36.0	37.5	38.2	38.3	40.5	40.2	41.7	42.4	43.0	41.4	40.1
64°	34.7	36.1	36.6	36.9	39.1	38.5	40.0	40.6	41.2	39.7	38.5
64.5°	33.4	34.6	35.0	35.4	37.6	37.0	38.3	38.9	39.4	38.0	37.1
65°	32.1	33.3	33.7	34.2	36.2	35.6	36.8	37.2	37.8	36.5	35.6
65.5°	31.1	31.9	32.3	32.7	34.8	34.3	35.3	35.7	36.1	34.8	34.3
66°	29.8	30.9	31.1	31.5	33.6	33.0	33.9	34.2	34.5	33.5	32.8
66.5°	28.9	29.7	30.0	30.3	32.3	31.8	32.6	32.8	33.0	32.1	31.7
67°	27.6	28.5	28.9	29.1	31.0	30.6	31.3	31.3	31.6	30.9	30.6



TEST NUMBER: P294441

CATALOG NUMBER: RL4069S1EWHDM-4000K

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
67.5°	26.7	27.3	27.5	28.0	30.0	29.4	30.0	30.2	30.2	29.5	29.2
68°	25.7	26.4	26.5	27.0	29.0	28.3	29.0	28.9	29.1	28.3	28.2
68.5°	24.7	25.4	25.5	25.8	27.7	27.2	27.6	27.5	27.6	27.1	27.1
69°	23.9	24.3	24.3	24.9	26.8	26.2	26.7	26.5	26.6	25.9	26.0
69.5°	22.9	23.6	23.5	23.8	25.7	25.4	25.5	25.5	25.5	25.1	25.2
70°	22.1	22.6	22.5	23.1	24.8	24.2	24.5	24.3	24.3	24.0	24.1
70.5°	21.2	21.8	21.8	22.1	23.9	23.4	23.7	23.4	23.4	23.0	23.2
71°	20.3	20.9	20.8	21.3	23.1	22.5	22.6	22.3	22.2	22.1	22.3
71.5°	19.6	20.1	20.2	20.5	22.3	21.8	21.9	21.5	21.4	21.2	21.7
72°	18.9	19.3	19.3	20.0	21.7	20.9	20.8	20.5	20.4	20.3	20.7
72.5°	18.4	18.5	18.5	19.1	20.8	20.2	20.1	19.9	19.8	19.5	20.1
73°	17.5	17.8	17.8	18.3	20.1	19.5	19.2	19.1	18.9	18.7	19.3
73.5°	16.8	17.2	17.1	17.6	19.4	18.6	18.5	18.4	18.2	18.0	18.5
74°	16.4	16.6	16.7	17.0	18.6	18.1	17.7	17.6	17.4	17.3	17.8
74.5°	15.9	15.9	15.9	16.5	18.2	17.4	17.1	16.9	16.7	16.7	17.2
75°	15.0	15.7	15.3	15.9	17.4	16.7	16.5	16.5	16.3	16.1	16.6
75.5°	14.4	14.9	14.9	15.2	16.7	16.1	15.8	15.7	15.7	15.6	16.0
76°	14.0	14.3	14.5	14.8	16.4	15.6	15.0	15.0	14.9	15.0	15.7
76.5°	13.1	13.7	13.7	14.4	15.6	15.0	14.7	14.6	14.4	14.6	14.9
77°	12.5	12.9	13.0	13.5	14.9	14.5	14.1	14.1	13.9	13.8	14.5
77.5°	12.0	12.4	12.5	12.9	14.4	13.8	13.3	13.4	13.1	13.1	13.6
78°	11.4	12.0	11.8	12.3	13.8	13.1	12.9	12.9	12.7	12.5	12.9
78.5°	10.9	11.2	11.3	11.6	13.0	12.5	12.4	12.5	12.3	12.0	12.4
79°	9.9	10.6	10.6	11.2	12.4	11.9	11.9	11.7	11.5	11.4	11.6
79.5°	9.5	9.9	9.8	10.4	11.9	11.4	11.2	11.4	11.2	10.8	11.1
80°	8.8	9.5	9.5	9.6	11.2	10.8	10.6	10.7	10.4	10.0	10.3
80.5°	7.9	8.8	8.7	9.2	10.6	10.1	10.0	9.9	9.7	9.5	9.5
81°	7.6	7.8	7.9	8.4	9.7	9.5	9.5	9.5	9.4	8.9	8.8
81.5°	6.8	7.5	7.6	7.7	9.3	9.0	8.9	8.9	8.6	8.0	8.3
82°	6.1	6.7	6.8	7.1	8.5	8.1	8.4	8.0	7.8	7.7	7.7
82.5°	5.7	6.0	6.1	6.4	7.7	7.8	7.7	7.7	7.5	6.8	7.0
83°	5.0	5.7	5.7	5.8	7.2	6.9	7.0	6.9	6.6	6.1	6.1
83.5°	4.3	4.9	5.0	5.2	6.4	6.2	6.3	6.2	5.9	5.9	5.8
84°	4.1	4.2	4.3	4.8	5.9	5.9	5.9	5.8	5.7	5.0	5.0
84.5°	3.3	3.9	4.0	4.1	5.2	5.2	5.2	5.1	4.9	4.3	4.2
85°	2.6	3.1	3.2	3.4	4.8	4.6	4.8	4.4	4.2	4.1	3.9
85.5°	2.3	2.4	2.5	2.9	4.1	4.1	4.0	4.1	3.9	3.3	3.1
86°	1.8	2.2	2.3	2.3	3.5	3.4	3.4	3.3	3.1	2.6	2.4
86.5°	1.6	1.5	1.7	2.1	2.9	2.9	2.9	2.6	2.4	2.3	2.2
87°	0.6	0.8	1.4	1.4	2.3	2.4	2.3	2.3	2.3	1.8	1.4
87.5°	0.5	0.5	0.6	0.7	2.1	2.1	2.1	1.8	1.5	1.6	1.0
88°	0.0	0.0	0.5	0.6	1.4	1.4	1.4	1.7	0.9	0.6	0.5
88.5°	0.0	0.0	0.0	0.0	0.7	0.8	0.7	0.6	0.6	0.5	0.0
89°	0.0	0.0	0.0	0.0	0.6	0.5	0.5	0.5	0.3	0.0	0.3
89.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P294441

CATALOG NUMBER: RL4069S1EWHDM-4000K

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
90°	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P294441

CATALOG NUMBER: RL4069S1EWHDM-4000K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
0°	363.0	363.0	363.0	363.0	363.0	363.0
0.5°	363.9	362.5	362.4	362.4	362.5	362.7
1°	363.7	362.1	362.0	362.0	362.1	362.4
1.5°	363.3	361.7	361.5	361.5	361.6	362.0
2°	363.0	361.1	361.0	360.9	361.1	361.5
2.5°	362.6	360.6	360.4	360.3	360.6	361.1
3°	362.2	360.0	359.8	359.6	360.0	360.5
3.5°	361.7	359.3	359.0	358.9	359.3	359.9
4°	361.1	358.5	358.3	358.1	358.6	359.3
4.5°	360.5	357.7	357.5	357.3	357.8	358.6
5°	359.9	356.9	356.7	356.4	357.0	357.9
5.5°	359.2	356.0	355.7	355.5	356.1	357.1
6°	358.4	355.1	354.8	354.5	355.2	356.3
6.5°	357.6	354.1	353.8	353.5	354.3	355.4
7°	356.7	353.0	352.7	352.4	353.2	354.4
7.5°	355.9	351.9	351.5	351.2	352.1	353.4
8°	355.0	350.9	350.4	350.1	350.9	352.3
8.5°	354.0	349.7	349.2	348.9	349.7	351.2
9°	352.9	348.6	347.9	347.6	348.5	350.1
9.5°	351.9	347.4	346.6	346.3	347.2	349.0
10°	350.7	346.1	345.3	345.0	345.9	347.8
10.5°	349.6	344.7	343.9	343.5	344.6	346.5
11°	348.4	343.4	342.5	342.1	343.2	345.1
11.5°	347.2	341.9	341.0	340.6	341.8	343.7
12°	345.9	340.5	339.5	339.0	340.3	342.3
12.5°	344.5	339.0	338.0	337.4	338.7	340.8
13°	343.2	337.4	336.4	335.7	337.2	339.2
13.5°	341.7	335.8	334.8	334.0	335.6	337.6
14°	340.2	334.2	333.1	332.3	333.9	336.0
14.5°	338.7	332.5	331.4	330.5	332.1	334.3
15°	337.1	330.8	329.6	328.7	330.4	332.6
15.5°	335.5	329.0	327.8	326.9	328.5	330.9
16°	333.8	327.2	325.9	325.0	326.7	329.1
16.5°	332.1	325.4	324.0	323.0	324.8	327.3
17°	330.4	323.5	322.1	321.1	322.9	325.4
17.5°	328.6	321.6	320.2	319.1	320.9	323.5
18°	326.8	319.6	318.2	317.0	318.9	321.5
18.5°	324.9	317.6	316.1	314.9	316.9	319.5
19°	323.0	315.6	314.0	312.9	314.8	317.5
19.5°	321.1	313.6	311.9	310.7	312.7	315.5
20°	319.1	311.5	309.8	308.6	310.6	313.5
20.5°	317.1	309.4	307.7	306.5	308.5	311.4
21°	315.0	307.2	305.6	304.2	306.4	309.3
21.5°	312.9	305.0	303.4	302.0	304.2	307.1
22°	310.8	302.8	301.1	299.7	302.0	304.9



TEST NUMBER: P294441

CATALOG NUMBER: RL4069S1EWHDM-4000K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
22.5°	308.6	300.6	298.8	297.4	299.7	302.7
23°	306.5	298.3	296.4	295.2	297.4	300.5
23.5°	304.2	296.0	294.1	292.8	295.0	298.2
24°	301.9	293.6	291.7	290.3	292.6	295.9
24.5°	299.5	291.1	289.3	287.8	290.2	293.5
25°	297.1	288.6	286.8	285.3	287.7	291.1
25.5°	294.6	286.0	284.3	282.7	285.2	288.6
26°	292.2	283.4	281.7	280.1	282.7	286.1
26.5°	289.6	280.8	279.1	277.5	280.1	283.6
27°	287.0	278.2	276.4	274.9	277.4	281.1
27.5°	284.4	275.4	273.7	272.2	274.8	278.5
28°	281.7	272.7	271.1	269.4	272.1	275.8
28.5°	278.9	269.8	268.3	266.6	269.4	273.1
29°	276.0	266.9	265.4	263.7	266.5	270.4
29.5°	273.0	263.9	262.6	260.8	263.6	267.4
30°	270.2	260.9	259.7	257.8	260.7	264.6
30.5°	267.0	257.8	256.7	254.8	257.7	261.7
31°	264.0	254.6	253.6	251.8	254.8	258.8
31.5°	260.8	251.4	250.5	248.6	251.7	255.6
32°	257.5	248.1	247.4	245.5	248.6	252.5
32.5°	254.1	244.6	244.0	242.3	245.4	249.3
33°	250.6	241.0	240.7	239.0	242.1	246.1
33.5°	247.2	237.5	237.2	235.6	238.8	242.7
34°	243.6	233.8	233.7	232.2	235.3	239.3
34.5°	239.9	230.0	230.1	228.7	231.8	235.8
35°	236.1	226.0	226.4	224.9	228.2	232.2
35.5°	232.2	222.0	222.5	221.2	224.4	228.4
36°	228.1	217.8	218.7	217.2	220.6	224.5
36.5°	224.0	213.6	214.6	213.2	216.6	220.5
37°	219.9	209.2	210.5	209.1	212.6	216.4
37.5°	215.7	204.8	206.2	204.9	208.3	212.3
38°	211.4	200.3	201.9	200.6	204.0	207.9
38.5°	206.9	195.8	197.6	196.1	199.6	203.4
39°	202.4	191.1	193.1	191.5	195.1	198.9
39.5°	198.0	186.4	188.4	186.8	190.6	194.2
40°	193.4	181.6	183.7	182.1	185.9	189.5
40.5°	188.8	176.9	178.9	177.4	181.1	184.8
41°	184.2	172.2	174.1	172.8	176.2	180.0
41.5°	179.5	167.4	169.3	168.0	171.5	175.2
42°	174.8	162.7	164.5	163.3	166.8	170.3
42.5°	170.0	157.8	159.7	158.6	162.1	165.4
43°	165.2	153.1	155.0	153.7	157.4	160.5
43.5°	160.5	148.3	150.2	149.0	152.6	155.7
44°	155.9	143.7	145.5	144.4	147.8	150.9
44.5°	151.2	139.2	140.8	139.7	143.2	146.2



TEST NUMBER: P294441

CATALOG NUMBER: RL4069S1EWHDM-4000K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
45°	146.7	134.7	136.2	135.3	138.5	141.6
45.5°	142.1	130.3	131.8	130.8	134.1	137.0
46°	137.6	126.0	127.4	126.5	129.6	132.5
46.5°	133.1	121.6	123.2	122.1	125.3	128.1
47°	128.7	117.5	118.9	117.9	121.0	123.7
47.5°	124.6	113.6	115.0	113.9	116.8	119.4
48°	120.4	109.6	110.9	109.9	112.8	115.4
48.5°	116.4	105.9	107.0	106.2	108.9	111.4
49°	112.4	102.3	103.3	102.5	105.1	107.4
49.5°	108.6	98.6	99.7	98.9	101.5	103.8
50°	104.8	95.2	96.2	95.4	97.9	100.0
50.5°	101.1	91.8	92.7	91.9	94.4	96.4
51°	97.6	88.5	89.4	88.6	91.0	92.9
51.5°	94.1	85.3	86.1	85.4	87.7	89.7
52°	90.8	82.3	82.9	82.4	84.5	86.5
52.5°	87.5	79.3	80.0	79.5	81.4	83.3
53°	84.3	76.4	77.1	76.5	78.5	80.2
53.5°	81.3	73.7	74.3	73.8	75.7	77.3
54°	78.2	71.0	71.7	71.0	72.9	74.4
54.5°	75.4	68.4	69.0	68.6	70.2	71.6
55°	72.6	65.9	66.5	66.0	67.6	69.0
55.5°	70.1	63.6	63.9	63.6	65.1	66.5
56°	67.4	61.2	61.7	61.4	62.7	64.0
56.5°	64.9	59.1	59.5	59.1	60.4	61.7
57°	62.6	56.8	57.5	56.9	58.4	59.3
57.5°	60.2	54.8	55.4	54.8	56.1	57.0
58°	58.1	52.8	53.3	52.8	54.1	54.9
58.5°	55.9	50.9	51.3	50.9	52.2	52.8
59°	53.8	49.1	49.4	49.2	50.2	51.0
59.5°	51.8	47.3	47.6	47.4	48.2	49.1
60°	49.8	45.6	46.0	45.6	46.5	47.2
60.5°	48.1	43.9	44.3	44.0	45.0	45.5
61°	46.2	42.3	42.8	42.4	43.3	43.8
61.5°	44.6	40.9	41.3	40.9	41.6	41.9
62°	42.9	39.5	39.8	39.5	40.0	40.3
62.5°	41.4	38.2	38.3	38.1	38.5	38.9
63°	39.9	36.6	37.0	36.6	37.2	37.5
63.5°	38.4	35.4	35.7	35.3	35.9	36.0
64°	36.8	34.2	34.5	34.1	34.5	34.7
64.5°	35.5	33.0	33.3	32.9	33.3	33.4
65°	34.2	31.9	32.2	31.8	32.1	32.1
65.5°	33.0	30.9	31.0	30.8	31.0	31.1
66°	31.9	29.7	30.0	29.6	29.9	29.8
66.5°	30.9	29.0	29.0	28.7	28.9	28.9
67°	29.6	27.7	28.0	27.6	27.7	27.6



TEST NUMBER: P294441

CATALOG NUMBER: RL4069S1EWHDM-4000K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
67.5°	28.7	26.9	27.1	26.8	26.8	26.7
68°	27.5	25.8	26.1	25.7	25.7	25.7
68.5°	26.7	25.1	25.4	24.9	24.9	24.7
69°	25.7	24.1	24.4	24.0	23.9	23.9
69.5°	24.8	23.4	23.7	23.3	23.2	22.9
70°	24.0	22.6	22.8	22.4	22.3	22.1
70.5°	23.3	22.1	22.0	21.8	21.7	21.2
71°	22.2	21.1	21.2	20.9	20.8	20.3
71.5°	21.6	20.4	20.5	20.3	20.1	19.6
72°	20.7	19.7	20.1	19.5	19.4	18.9
72.5°	20.2	19.2	19.2	18.7	18.6	18.4
73°	19.4	18.5	18.4	18.3	18.1	17.5
73.5°	18.7	17.8	17.8	17.5	17.3	16.8
74°	18.3	17.3	17.3	16.8	16.6	16.4
74.5°	17.5	16.7	16.6	16.4	16.2	15.9
75°	16.8	16.1	16.1	15.8	15.6	15.0
75.5°	16.5	15.6	15.7	15.0	14.9	14.4
76°	15.8	14.9	14.9	14.4	14.3	14.0
76.5°	15.0	14.2	14.3	13.9	13.7	13.1
77°	14.4	13.3	13.4	13.0	12.9	12.5
77.5°	13.9	12.7	12.8	12.5	12.4	12.0
78°	13.1	12.0	12.1	11.7	11.6	11.4
78.5°	12.5	11.3	11.3	11.3	11.1	10.9
79°	11.6	10.6	10.7	10.3	10.3	9.9
79.5°	11.1	9.7	9.9	9.6	9.5	9.5
80°	10.3	9.2	9.4	9.0	8.9	8.8
80.5°	9.6	8.6	8.5	8.1	8.3	7.9
81°	9.1	7.8	7.7	7.7	7.7	7.6
81.5°	8.1	7.3	7.1	6.8	7.0	6.8
82°	7.7	6.2	6.3	6.0	6.0	6.1
82.5°	6.8	5.9	5.8	5.4	5.7	5.7
83°	6.0	5.0	5.0	4.8	4.9	5.0
83.5°	5.5	4.2	4.2	4.1	4.2	4.3
84°	4.9	3.8	3.8	3.4	3.9	4.1
84.5°	4.2	3.1	3.0	2.9	3.1	3.3
85°	3.4	2.5	2.3	2.4	2.4	2.6
85.5°	2.9	2.1	2.1	1.8	2.2	2.3
86°	2.4	1.5	1.4	1.5	1.6	1.8
86.5°	1.7	0.9	0.8	0.7	1.0	1.6
87°	1.3	0.6	0.5	0.5	0.5	0.6
87.5°	0.8	0.0	0.0	0.0	0.3	0.5
88°	0.6	0.0	0.0	0.0	0.0	0.0
88.5°	0.0	0.0	0.0	0.0	0.0	0.0
89°	0.3	0.0	0.0	0.0	0.0	0.0
89.5°	0.0	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P294441

CATALOG NUMBER: RL4069S1EWHDM-4000K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
90°	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)