

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: P294442

Luminaire Tested: **RL4069S1EWHDM-5000K**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P294442
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-5000K
Description: 4 IN HALO RL DIRECT MOUNT (600 LUMEN) - 5000K
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: 644.87 (1 lamp)
Luminaire Lumens: 670.7 lumens
Efficiency: 104.0%
Efficacy: 77.1 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

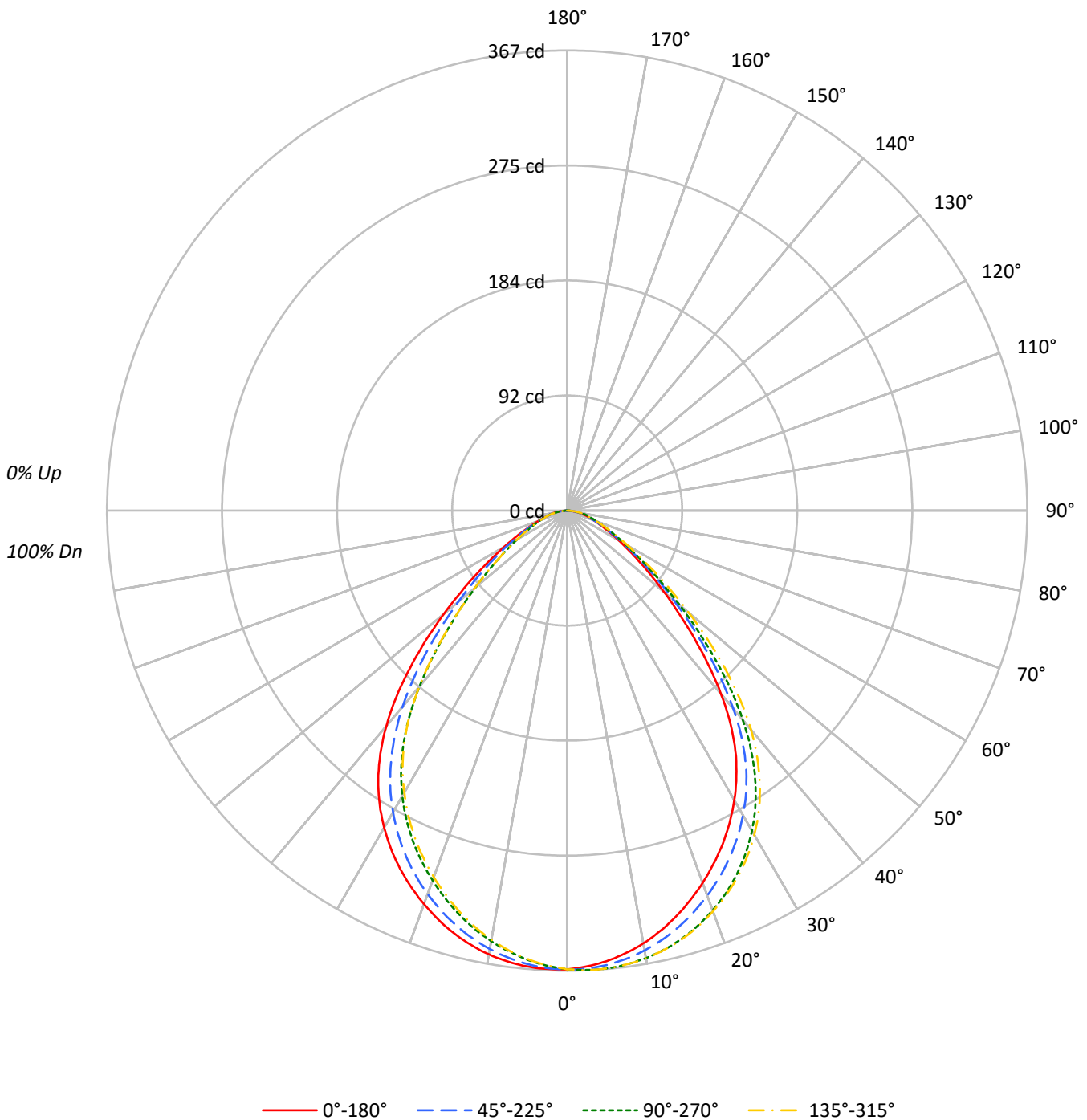
Input Watts (W): 8.7
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P294442

CATALOG NUMBER: RL4069S1EWHDM-5000K

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	124	124	124	124	121	121	121	121	116	116	116	111	111	111	106	106	106	104	104	104	104	104	104	104		
1	116	112	108	105	113	109	106	103	105	102	100	101	99	97	97	96	94	92	92	92	92	92	92	92		
2	107	100	94	90	105	98	93	89	95	90	87	92	88	85	89	86	83	81	81	81	81	81	81	81		
3	99	90	83	78	97	89	82	77	86	80	76	83	78	74	81	77	73	71	71	71	71	71	71	71		
4	92	82	74	68	90	80	73	68	78	72	67	76	70	66	74	69	65	63	63	63	63	63	63	63		
5	86	74	66	60	84	73	66	60	71	65	59	69	63	59	67	62	58	56	56	56	56	56	56	56		
6	80	68	60	54	78	67	59	54	65	58	53	64	57	53	62	57	52	51	51	51	51	51	51	51		
7	75	62	54	49	73	61	54	48	60	53	48	59	52	48	57	52	47	46	46	46	46	46	46	46		
8	70	57	49	44	68	57	49	44	55	49	44	54	48	43	53	47	43	41	41	41	41	41	41	41		
9	66	53	45	40	64	53	45	40	51	45	40	50	44	40	49	44	40	38	38	38	38	38	38	38		
10	62	49	42	37	61	49	42	37	48	41	37	47	41	37	46	40	36	35	35	35	35	35	35	35		

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	44952	44952	44952	44952
5°	44483	45198	45013	44359
10°	43724	45209	44835	43512
15°	42633	44948	44388	42392
20°	41300	44359	43653	41039
25°	39771	43391	42727	39433
30°	37834	41820	41409	37295
35°	35094	39219	39399	34165
40°	30615	34945	35988	29348
45°	24793	28893	30752	23594
50°	19266	22381	24579	18329
55°	14886	16921	18870	14222
60°	11696	13145	14349	11278
65°	9419	10610	11076	9331
70°	8010	8980	8800	8190
75°	7168	8307	7832	7690
80°	6226	7995	7429	6580
85°	3665	6766	5920	3524



TEST NUMBER: P294442

CATALOG NUMBER: RL4069S1EWHDM-5000K

ZONAL LUMENS:

Zone	Lumens	% Fixture	% Lamp
0°-10°	34.4	5.1	5.3
10°-20°	96.5	14.4	15.0
20°-30°	140.1	20.9	21.7
30°-40°	153.1	22.8	23.7
40°-50°	120.4	18.0	18.7
50°-60°	69.3	10.3	10.7
60°-70°	35.2	5.3	5.5
70°-80°	17.3	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°	271.1	40.4	42.0
0°-40°	424.2	63.2	65.8
0°-60°	613.8	91.5	95.2
0°-90°	670.7	100.0	104.0
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°	670.7	100.0	104.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	366	366	366	366	366	
5°	361	366	365	360	361	34
15°	335	353	349	333	335	94
25°	293	320	315	291	293	135
35°	234	262	263	228	234	145
45°	143	166	177	136	143	110
55°	70	79	88	66	70	63
65°	32	36	38	32	32	33
75°	15	18	16	16	15	16
85°	3	5	4	2	3	4
90°	0	0	0	0	0	



TEST NUMBER: P294442

CATALOG NUMBER: RL4069S1EWHDM-5000K

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
0°	365.9	365.9	365.9	365.9	365.9	365.9	365.9	365.9	365.9	365.9	365.9
0.5°	365.5	365.6	366.1	367.1	366.0	366.0	366.0	365.9	365.9	365.8	366.0
1°	365.2	365.5	366.0	367.1	366.3	366.3	366.2	366.1	366.0	365.8	365.8
1.5°	364.8	365.2	366.0	367.1	366.5	366.5	366.5	366.2	366.0	365.8	365.7
2°	364.4	365.0	365.8	367.1	366.7	366.7	366.7	366.3	366.0	365.8	365.5
2.5°	363.9	364.6	365.6	367.0	366.8	366.8	366.8	366.4	366.0	365.6	365.2
3°	363.3	364.3	365.4	366.9	366.8	366.9	366.8	366.4	365.9	365.3	364.9
3.5°	362.7	363.8	365.0	366.8	366.8	366.9	366.8	366.4	365.8	365.1	364.5
4°	362.1	363.3	364.7	366.5	366.8	366.9	366.8	366.3	365.6	364.7	364.1
4.5°	361.4	362.8	364.2	366.3	366.7	366.9	366.7	366.2	365.3	364.3	363.6
5°	360.7	362.2	363.8	365.9	366.5	366.8	366.5	366.0	365.0	363.9	363.1
5.5°	359.9	361.5	363.2	365.5	366.4	366.6	366.4	365.7	364.7	363.5	362.5
6°	359.1	360.9	362.6	365.1	366.1	366.4	366.1	365.3	364.3	362.9	361.9
6.5°	358.1	360.1	362.0	364.6	365.8	366.2	365.9	365.0	363.9	362.4	361.2
7°	357.2	359.3	361.3	364.1	365.4	365.8	365.5	364.5	363.4	361.7	360.5
7.5°	356.1	358.4	360.6	363.5	365.0	365.5	365.1	364.1	362.8	361.1	359.7
8°	355.1	357.5	359.8	362.8	364.6	365.0	364.7	363.5	362.2	360.4	358.9
8.5°	354.0	356.5	359.0	362.2	364.1	364.6	364.2	363.0	361.6	359.6	358.0
9°	352.8	355.5	358.1	361.4	363.5	364.0	363.7	362.4	360.9	358.8	357.1
9.5°	351.7	354.4	357.2	360.6	363.0	363.5	363.1	361.7	360.2	357.9	356.1
10°	350.5	353.3	356.2	359.8	362.4	362.9	362.5	361.0	359.4	357.0	355.1
10.5°	349.2	352.1	355.1	359.0	361.7	362.2	361.9	360.2	358.6	356.0	354.1
11°	347.8	350.9	354.0	358.0	361.0	361.5	361.2	359.5	357.7	354.9	352.9
11.5°	346.4	349.7	352.9	357.1	360.2	360.7	360.4	358.6	356.8	353.9	351.7
12°	344.9	348.3	351.8	356.0	359.4	360.0	359.7	357.7	355.8	352.8	350.5
12.5°	343.4	347.0	350.6	354.9	358.5	359.1	358.8	356.8	354.8	351.7	349.3
13°	341.9	345.6	349.4	353.8	357.7	358.2	358.0	355.8	353.8	350.5	348.0
13.5°	340.3	344.2	348.0	352.7	356.7	357.3	357.0	354.8	352.6	349.4	346.7
14°	338.6	342.7	346.6	351.4	355.7	356.3	356.1	353.8	351.5	348.0	345.3
14.5°	336.9	341.1	345.2	350.1	354.6	355.3	355.0	352.6	350.2	346.7	343.9
15°	335.2	339.5	343.7	348.8	353.4	354.2	353.9	351.5	349.0	345.3	342.4
15.5°	333.4	337.9	342.2	347.4	352.2	353.1	352.7	350.3	347.6	343.9	340.9
16°	331.6	336.2	340.7	346.0	351.0	351.9	351.5	349.1	346.3	342.4	339.3
16.5°	329.8	334.5	339.1	344.5	349.7	350.6	350.2	347.7	344.9	340.8	337.8
17°	327.9	332.7	337.5	343.0	348.4	349.3	348.9	346.3	343.5	339.3	336.2
17.5°	326.0	330.9	335.8	341.4	347.0	347.9	347.6	344.9	342.0	337.7	334.5
18°	324.0	329.1	334.0	339.9	345.5	346.5	346.2	343.4	340.4	336.0	332.7
18.5°	322.0	327.2	332.2	338.2	344.1	345.1	344.7	341.9	338.8	334.3	330.9
19°	320.0	325.3	330.4	336.5	342.5	343.5	343.2	340.4	337.3	332.6	329.1
19.5°	318.0	323.4	328.6	334.8	340.9	342.0	341.7	338.8	335.6	330.8	327.2
20°	315.9	321.4	326.7	333.0	339.3	340.3	340.1	337.2	333.9	329.0	325.3
20.5°	313.8	319.4	324.8	331.2	337.6	338.7	338.5	335.5	332.2	327.2	323.4
21°	311.7	317.4	322.9	329.3	335.9	337.0	336.9	333.8	330.5	325.3	321.5
21.5°	309.5	315.4	320.9	327.4	334.1	335.2	335.1	332.1	328.7	323.4	319.5
22°	307.2	313.3	318.9	325.5	332.3	333.4	333.4	330.4	326.9	321.5	317.4



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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°	305.0	311.2	316.9	323.6	330.4	331.5	331.6	328.7	325.0	319.6	315.3
23°	302.9	309.0	314.8	321.5	328.4	329.6	329.8	326.8	323.1	317.6	313.2
23.5°	300.5	306.8	312.7	319.4	326.4	327.7	327.9	325.0	321.2	315.5	311.0
24°	298.2	304.6	310.5	317.3	324.4	325.7	326.0	323.1	319.2	313.4	308.8
24.5°	295.8	302.3	308.3	315.1	322.3	323.6	324.1	321.1	317.2	311.2	306.5
25°	293.4	299.9	306.0	312.9	320.1	321.5	322.1	319.0	315.2	309.0	304.1
25.5°	290.9	297.5	303.7	310.5	317.9	319.3	320.0	316.9	313.1	306.8	301.7
26°	288.4	295.1	301.3	308.2	315.5	317.0	317.8	314.8	310.9	304.5	299.2
26.5°	285.8	292.6	298.9	305.7	313.1	314.7	315.6	312.7	308.7	302.2	296.7
27°	283.3	290.1	296.5	303.2	310.7	312.3	313.4	310.5	306.5	299.9	294.2
27.5°	280.7	287.5	294.0	300.8	308.3	309.9	311.0	308.3	304.2	297.4	291.6
28°	277.9	284.9	291.4	298.2	305.7	307.3	308.7	306.0	301.8	294.9	289.0
28.5°	275.2	282.3	288.8	295.6	303.1	304.7	306.3	303.6	299.4	292.4	286.3
29°	272.5	279.6	286.1	292.8	300.4	302.0	303.8	301.3	296.9	289.8	283.5
29.5°	269.5	276.8	283.3	290.0	297.6	299.2	301.2	298.8	294.4	287.3	280.6
30°	266.7	274.0	280.6	287.1	294.8	296.5	298.6	296.3	291.9	284.6	277.7
30.5°	263.7	271.1	277.7	284.2	291.9	293.6	295.9	293.7	289.3	281.8	274.9
31°	260.8	268.3	274.8	281.3	289.0	290.6	293.2	291.1	286.7	279.1	271.9
31.5°	257.6	265.3	271.9	278.2	285.9	287.5	290.3	288.3	283.9	276.1	268.8
32°	254.5	262.3	268.8	275.0	282.7	284.3	287.5	285.5	281.2	273.2	265.7
32.5°	251.3	259.1	265.7	271.8	279.4	281.1	284.4	282.6	278.3	270.2	262.4
33°	248.0	255.9	262.4	268.3	276.1	277.7	281.3	279.6	275.3	267.1	259.1
33.5°	244.5	252.5	259.1	264.9	272.5	274.3	278.1	276.6	272.3	263.9	255.6
34°	241.2	249.1	255.8	261.3	268.9	270.8	274.8	273.5	269.1	260.8	252.1
34.5°	237.7	245.6	252.3	257.6	265.3	267.1	271.5	270.2	266.0	257.4	248.6
35°	234.0	242.0	248.7	253.8	261.5	263.3	268.0	266.9	262.7	254.0	245.0
35.5°	230.2	238.3	244.9	250.0	257.7	259.4	264.4	263.5	259.4	250.6	241.3
36°	226.2	234.6	241.0	246.0	253.7	255.4	260.8	260.0	255.8	247.0	237.5
36.5°	222.2	230.6	237.0	241.9	249.6	251.3	257.0	256.4	252.2	243.3	233.5
37°	218.1	226.4	232.9	237.7	245.4	247.1	253.1	252.7	248.5	239.5	229.5
37.5°	214.0	222.2	228.8	233.3	241.0	242.8	249.1	249.0	244.7	235.7	225.5
38°	209.6	218.0	224.4	228.9	236.7	238.4	245.1	245.1	240.8	231.8	221.3
38.5°	205.0	213.6	219.9	224.3	232.1	233.9	241.1	241.1	236.9	227.6	217.1
39°	200.5	209.1	215.4	219.7	227.6	229.2	236.8	236.9	232.9	223.4	213.0
39.5°	195.7	204.5	210.8	215.0	222.8	224.4	232.5	232.7	228.8	219.1	208.5
40°	190.9	199.9	206.1	210.1	217.9	219.5	228.0	228.5	224.4	214.8	204.1
40.5°	186.2	194.9	201.3	205.2	213.0	214.6	223.4	223.9	220.0	210.3	199.5
41°	181.4	190.0	196.4	200.2	207.9	209.7	218.6	219.4	215.5	205.7	194.9
41.5°	176.5	185.1	191.4	195.0	202.9	204.6	213.8	214.9	211.0	201.3	190.3
42°	171.6	180.2	186.4	190.0	197.9	199.4	209.0	210.1	206.4	196.6	185.8
42.5°	166.7	175.2	181.3	184.9	192.7	194.1	204.0	205.2	201.6	191.7	181.0
43°	161.8	170.3	176.3	179.8	187.5	188.8	198.9	200.3	196.8	187.0	176.3
43.5°	156.9	165.3	171.2	174.6	182.1	183.4	193.8	195.3	191.9	182.1	171.6
44°	152.0	160.3	166.1	169.5	176.8	178.1	188.5	190.3	187.0	177.3	166.8
44.5°	147.3	155.4	161.1	164.2	171.5	172.8	183.3	185.3	182.0	172.5	162.1



TEST NUMBER: P294442

CATALOG NUMBER: RL4069S1EWHDM-5000K

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
45°	142.7	150.5	156.2	159.1	166.3	167.5	178.0	180.2	177.0	167.6	157.4
45.5°	138.1	145.7	151.3	154.1	161.1	162.1	172.8	175.0	172.1	162.7	152.8
46°	133.5	141.1	146.4	149.1	156.0	156.7	167.5	169.8	167.1	157.8	148.2
46.5°	129.1	136.4	141.6	144.2	150.8	151.4	162.2	164.7	162.1	152.9	143.7
47°	124.6	131.9	136.8	139.3	145.7	146.3	156.9	159.6	157.2	148.1	139.1
47.5°	120.3	127.4	132.1	134.5	140.7	141.2	151.7	154.6	152.3	143.4	134.6
48°	116.3	123.0	127.7	129.7	135.8	136.2	146.6	149.6	147.4	138.7	130.4
48.5°	112.2	118.8	123.2	125.2	130.9	131.3	141.5	144.7	142.5	134.2	126.1
49°	108.2	114.7	119.0	120.7	126.2	126.4	136.5	139.9	137.8	129.7	121.8
49.5°	104.6	110.6	114.8	116.3	121.6	121.8	131.6	135.0	133.2	125.2	117.8
50°	100.8	106.8	110.6	112.1	117.1	117.2	126.8	130.1	128.6	120.8	113.8
50.5°	97.1	102.9	106.5	107.9	112.6	112.7	122.0	125.4	124.1	116.6	109.8
51°	93.6	99.2	102.7	103.9	108.3	108.3	117.3	120.8	119.6	112.4	106.0
51.5°	90.4	95.6	98.9	99.9	104.2	104.2	112.9	116.5	115.3	108.4	102.2
52°	87.1	92.1	95.2	96.1	100.1	100.2	108.4	112.1	111.0	104.5	98.5
52.5°	84.0	88.7	91.8	92.4	96.3	96.3	104.2	107.8	106.9	100.7	94.9
53°	80.8	85.4	88.3	89.0	92.7	92.5	100.2	103.7	103.0	96.9	91.6
53.5°	77.9	82.2	85.0	85.5	89.1	88.8	96.2	99.7	99.2	93.2	88.2
54°	75.0	79.2	81.7	82.2	85.6	85.4	92.3	95.6	95.3	89.8	85.0
54.5°	72.2	76.3	78.6	79.0	82.3	82.0	88.7	91.9	91.7	86.3	81.8
55°	69.5	73.4	75.6	75.9	79.0	78.7	85.1	88.2	88.1	83.1	78.8
55.5°	67.0	70.6	72.8	73.0	76.0	75.7	81.5	84.7	84.7	79.9	75.8
56°	64.4	67.9	69.9	70.2	73.0	72.8	78.3	81.3	81.3	76.8	73.0
56.5°	62.2	65.3	67.2	67.4	70.4	69.8	75.2	78.0	78.1	73.9	70.5
57°	59.8	62.9	64.6	64.8	67.6	67.1	72.2	74.8	75.1	71.1	67.7
57.5°	57.5	60.6	62.1	62.4	65.0	64.4	69.2	71.7	72.1	68.2	65.1
58°	55.3	58.3	59.7	59.9	62.5	62.0	66.4	68.8	69.1	65.5	62.6
58.5°	53.2	56.1	57.3	57.6	60.0	59.6	63.6	65.9	66.3	62.9	60.1
59°	51.4	53.9	55.2	55.3	57.9	57.3	61.1	63.2	63.5	60.5	57.9
59.5°	49.5	51.7	53.1	53.0	55.7	55.1	58.6	60.6	60.9	58.1	55.7
60°	47.6	49.8	50.9	51.0	53.5	53.1	56.2	58.1	58.4	55.8	53.4
60.5°	45.9	47.9	48.9	49.0	51.5	51.0	54.1	55.5	56.1	53.4	51.3
61°	44.1	46.1	46.9	47.2	49.5	49.0	51.7	53.2	53.7	51.3	49.3
61.5°	42.3	44.3	45.1	45.4	47.6	47.1	49.6	51.0	51.4	49.2	47.4
62°	40.7	42.5	43.4	43.6	45.9	45.3	47.6	48.8	49.2	47.1	45.5
62.5°	39.2	40.9	41.6	41.9	44.1	43.7	45.6	46.7	47.2	45.3	43.8
63°	37.8	39.2	40.0	40.2	42.3	42.0	43.8	44.8	45.2	43.5	42.0
63.5°	36.3	37.8	38.5	38.6	40.9	40.5	42.0	42.8	43.4	41.7	40.4
64°	35.0	36.4	36.9	37.2	39.4	38.8	40.3	40.9	41.5	40.0	38.8
64.5°	33.6	34.9	35.3	35.7	37.9	37.3	38.6	39.2	39.7	38.3	37.4
65°	32.4	33.6	34.0	34.5	36.5	35.8	37.1	37.5	38.1	36.8	35.9
65.5°	31.3	32.2	32.5	33.0	35.0	34.6	35.6	35.9	36.4	35.1	34.6
66°	30.1	31.1	31.3	31.8	33.8	33.2	34.2	34.5	34.7	33.8	33.1
66.5°	29.1	30.0	30.2	30.5	32.6	32.0	32.9	33.1	33.3	32.3	31.9
67°	27.8	28.7	29.2	29.4	31.2	30.8	31.5	31.6	31.9	31.1	30.8



TEST NUMBER: P294442

CATALOG NUMBER: RL4069S1EWHDM-5000K

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
67.5°	26.9	27.5	27.7	28.2	30.2	29.6	30.3	30.5	30.5	29.7	29.4
68°	25.9	26.6	26.7	27.2	29.2	28.5	29.2	29.2	29.3	28.5	28.4
68.5°	24.8	25.6	25.7	26.0	27.9	27.4	27.8	27.7	27.9	27.3	27.3
69°	24.1	24.5	24.5	25.1	27.0	26.4	26.9	26.7	26.8	26.1	26.2
69.5°	23.1	23.8	23.7	24.0	25.9	25.6	25.7	25.7	25.7	25.3	25.4
70°	22.3	22.7	22.6	23.2	25.0	24.4	24.7	24.5	24.5	24.2	24.3
70.5°	21.4	22.0	21.9	22.3	24.1	23.6	23.9	23.5	23.5	23.2	23.4
71°	20.5	21.0	21.0	21.5	23.3	22.7	22.8	22.5	22.4	22.3	22.5
71.5°	19.8	20.3	20.4	20.7	22.4	22.0	22.0	21.7	21.6	21.4	21.9
72°	19.0	19.5	19.5	20.2	21.9	21.1	21.0	20.7	20.6	20.5	20.8
72.5°	18.5	18.6	18.6	19.2	20.9	20.4	20.3	20.1	20.0	19.7	20.3
73°	17.6	18.0	17.9	18.5	20.3	19.6	19.4	19.3	19.0	18.8	19.4
73.5°	16.9	17.3	17.3	17.7	19.5	18.8	18.6	18.5	18.4	18.2	18.6
74°	16.5	16.7	16.8	17.2	18.7	18.2	17.8	17.7	17.5	17.5	17.9
74.5°	16.0	16.1	16.0	16.7	18.4	17.6	17.2	17.0	16.8	16.9	17.4
75°	15.1	15.8	15.4	16.0	17.5	16.9	16.7	16.6	16.5	16.2	16.7
75.5°	14.5	15.0	15.0	15.3	16.8	16.2	15.9	15.8	15.8	15.7	16.1
76°	14.1	14.4	14.6	14.9	16.5	15.7	15.1	15.1	15.0	15.1	15.8
76.5°	13.2	13.8	13.8	14.5	15.7	15.1	14.8	14.7	14.5	14.7	15.0
77°	12.6	13.0	13.1	13.6	15.0	14.6	14.2	14.2	14.0	13.9	14.6
77.5°	12.1	12.5	12.6	13.0	14.5	13.9	13.4	13.5	13.2	13.2	13.7
78°	11.5	12.1	11.9	12.4	13.9	13.2	13.0	13.0	12.8	12.6	13.0
78.5°	11.0	11.3	11.4	11.6	13.1	12.6	12.5	12.6	12.4	12.0	12.5
79°	10.0	10.7	10.7	11.3	12.5	12.0	12.0	11.8	11.6	11.5	11.6
79.5°	9.6	9.9	9.9	10.5	12.0	11.5	11.3	11.4	11.3	10.9	11.2
80°	8.8	9.5	9.6	9.7	11.3	10.9	10.7	10.8	10.5	10.0	10.3
80.5°	8.0	8.8	8.8	9.3	10.7	10.1	10.1	10.0	9.7	9.6	9.6
81°	7.7	7.9	8.0	8.5	9.7	9.6	9.5	9.6	9.4	9.0	8.9
81.5°	6.9	7.6	7.7	7.7	9.4	9.1	8.9	9.0	8.6	8.1	8.4
82°	6.2	6.7	6.9	7.1	8.6	8.2	8.5	8.1	7.8	7.7	7.8
82.5°	5.7	6.0	6.1	6.4	7.8	7.8	7.7	7.8	7.5	6.9	7.0
83°	5.0	5.8	5.8	5.9	7.3	7.0	7.0	7.0	6.7	6.2	6.1
83.5°	4.3	5.0	5.0	5.2	6.5	6.3	6.4	6.2	6.0	5.9	5.8
84°	4.1	4.2	4.3	4.8	5.9	6.0	5.9	5.9	5.7	5.0	5.0
84.5°	3.3	3.9	4.1	4.1	5.3	5.3	5.2	5.1	4.9	4.3	4.2
85°	2.6	3.1	3.3	3.4	4.8	4.7	4.8	4.4	4.2	4.1	3.9
85.5°	2.3	2.4	2.6	3.0	4.1	4.2	4.1	4.1	4.0	3.3	3.1
86°	1.8	2.3	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	3.0	2.9	2.9	2.6	2.4	2.3	2.2
87°	0.6	0.8	1.4	1.4	2.4	2.4	2.3	2.4	2.3	1.9	1.4
87.5°	0.5	0.6	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	0.6
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	0.6	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: P294442

CATALOG NUMBER: RL4069S1EWHDM-5000K

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: P294442

CATALOG NUMBER: RL4069S1EWHDM-5000K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
0°	365.9	365.9	365.9	365.9	365.9	365.9
0.5°	366.7	365.3	365.3	365.2	365.3	365.5
1°	366.5	364.9	364.8	364.8	364.9	365.2
1.5°	366.2	364.5	364.3	364.3	364.4	364.8
2°	365.8	363.9	363.8	363.7	364.0	364.4
2.5°	365.4	363.4	363.2	363.1	363.4	363.9
3°	365.0	362.8	362.6	362.4	362.8	363.3
3.5°	364.5	362.1	361.8	361.7	362.1	362.7
4°	363.9	361.3	361.1	360.9	361.4	362.1
4.5°	363.4	360.5	360.3	360.1	360.6	361.4
5°	362.7	359.7	359.4	359.2	359.8	360.7
5.5°	362.0	358.8	358.5	358.3	358.9	359.9
6°	361.2	357.8	357.6	357.3	358.0	359.1
6.5°	360.4	356.8	356.5	356.2	357.0	358.1
7°	359.5	355.8	355.5	355.1	356.0	357.2
7.5°	358.6	354.7	354.3	354.0	354.8	356.1
8°	357.7	353.6	353.1	352.8	353.6	355.1
8.5°	356.7	352.5	351.9	351.6	352.5	354.0
9°	355.7	351.3	350.6	350.3	351.2	352.8
9.5°	354.6	350.1	349.3	349.0	349.9	351.7
10°	353.4	348.8	348.0	347.6	348.6	350.5
10.5°	352.3	347.4	346.6	346.2	347.3	349.2
11°	351.1	346.0	345.2	344.7	345.9	347.8
11.5°	349.9	344.6	343.7	343.2	344.5	346.4
12°	348.6	343.1	342.2	341.6	342.9	344.9
12.5°	347.2	341.6	340.6	340.0	341.4	343.4
13°	345.8	340.0	339.0	338.3	339.8	341.9
13.5°	344.4	338.5	337.4	336.6	338.2	340.3
14°	342.9	336.8	335.7	334.9	336.5	338.6
14.5°	341.3	335.1	333.9	333.1	334.7	336.9
15°	339.7	333.3	332.1	331.3	332.9	335.2
15.5°	338.1	331.6	330.3	329.4	331.1	333.4
16°	336.4	329.8	328.4	327.5	329.2	331.6
16.5°	334.7	327.9	326.5	325.5	327.3	329.8
17°	332.9	326.0	324.6	323.6	325.4	327.9
17.5°	331.2	324.1	322.6	321.5	323.4	326.0
18°	329.3	322.1	320.6	319.5	321.4	324.0
18.5°	327.4	320.0	318.5	317.4	319.4	322.0
19°	325.5	318.0	316.5	315.3	317.3	320.0
19.5°	323.6	316.0	314.4	313.2	315.2	318.0
20°	321.6	313.9	312.2	311.0	313.0	315.9
20.5°	319.6	311.8	310.1	308.8	310.9	313.8
21°	317.5	309.6	308.0	306.6	308.8	311.7
21.5°	315.3	307.4	305.8	304.4	306.6	309.5
22°	313.2	305.2	303.5	302.0	304.4	307.2



TEST NUMBER: P294442

CATALOG NUMBER: RL4069S1EWHDM-5000K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
22.5°	311.0	302.9	301.1	299.7	302.0	305.0
23°	308.9	300.6	298.7	297.4	299.7	302.9
23.5°	306.6	298.3	296.4	295.1	297.3	300.5
24°	304.3	295.8	294.0	292.6	294.9	298.2
24.5°	301.9	293.4	291.6	290.1	292.5	295.8
25°	299.4	290.9	289.1	287.6	290.0	293.4
25.5°	296.9	288.3	286.5	284.9	287.5	290.9
26°	294.4	285.6	283.9	282.3	284.9	288.4
26.5°	291.9	283.0	281.2	279.7	282.2	285.8
27°	289.3	280.4	278.6	277.1	279.6	283.3
27.5°	286.6	277.6	275.9	274.3	276.9	280.7
28°	283.8	274.8	273.2	271.5	274.2	277.9
28.5°	281.0	271.9	270.4	268.6	271.5	275.2
29°	278.1	269.0	267.5	265.7	268.6	272.5
29.5°	275.2	265.9	264.6	262.8	265.7	269.5
30°	272.3	262.9	261.7	259.8	262.7	266.7
30.5°	269.1	259.8	258.7	256.8	259.7	263.7
31°	266.1	256.5	255.6	253.7	256.7	260.8
31.5°	262.8	253.3	252.5	250.6	253.6	257.6
32°	259.5	250.0	249.3	247.5	250.5	254.5
32.5°	256.1	246.5	245.9	244.2	247.3	251.3
33°	252.6	242.9	242.6	240.8	244.0	248.0
33.5°	249.1	239.3	239.0	237.5	240.6	244.5
34°	245.5	235.6	235.5	234.0	237.1	241.2
34.5°	241.8	231.8	231.8	230.4	233.6	237.7
35°	237.9	227.8	228.1	226.7	230.0	234.0
35.5°	234.0	223.7	224.3	222.9	226.2	230.2
36°	229.9	219.5	220.4	218.9	222.3	226.2
36.5°	225.8	215.3	216.3	214.8	218.3	222.2
37°	221.6	210.9	212.1	210.8	214.2	218.1
37.5°	217.3	206.4	207.8	206.5	209.9	214.0
38°	213.0	201.9	203.5	202.1	205.6	209.6
38.5°	208.5	197.3	199.1	197.6	201.1	205.0
39°	203.9	192.6	194.6	193.0	196.6	200.5
39.5°	199.6	187.8	189.9	188.3	192.0	195.7
40°	194.9	183.0	185.2	183.5	187.3	190.9
40.5°	190.3	178.3	180.3	178.7	182.5	186.2
41°	185.6	173.5	175.4	174.1	177.6	181.4
41.5°	180.9	168.7	170.6	169.3	172.8	176.5
42°	176.1	163.9	165.8	164.6	168.1	171.6
42.5°	171.3	159.0	161.0	159.8	163.3	166.7
43°	166.5	154.2	156.2	154.9	158.6	161.8
43.5°	161.8	149.5	151.4	150.2	153.8	156.9
44°	157.1	144.8	146.6	145.5	149.0	152.0
44.5°	152.4	140.2	141.9	140.8	144.3	147.3



TEST NUMBER: P294442

CATALOG NUMBER: RL4069S1EWHDM-5000K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
45°	147.9	135.8	137.3	136.3	139.6	142.7
45.5°	143.2	131.3	132.8	131.8	135.1	138.1
46°	138.6	127.0	128.4	127.5	130.6	133.5
46.5°	134.2	122.6	124.2	123.0	126.3	129.1
47°	129.7	118.4	119.8	118.8	121.9	124.6
47.5°	125.6	114.5	115.9	114.7	117.7	120.3
48°	121.3	110.5	111.8	110.8	113.7	116.3
48.5°	117.3	106.7	107.8	107.0	109.7	112.2
49°	113.3	103.1	104.1	103.3	105.9	108.2
49.5°	109.4	99.4	100.4	99.7	102.3	104.6
50°	105.6	95.9	96.9	96.1	98.7	100.8
50.5°	101.9	92.5	93.4	92.6	95.1	97.1
51°	98.4	89.2	90.1	89.3	91.7	93.6
51.5°	94.8	86.0	86.8	86.1	88.4	90.4
52°	91.5	82.9	83.6	83.1	85.1	87.1
52.5°	88.2	79.9	80.6	80.1	82.0	84.0
53°	85.0	77.0	77.7	77.1	79.1	80.8
53.5°	81.9	74.3	74.9	74.3	76.3	77.9
54°	78.8	71.5	72.3	71.6	73.4	75.0
54.5°	76.0	69.0	69.5	69.1	70.7	72.2
55°	73.2	66.4	67.0	66.5	68.1	69.5
55.5°	70.6	64.1	64.4	64.1	65.6	67.0
56°	67.9	61.7	62.1	61.8	63.2	64.4
56.5°	65.4	59.5	60.0	59.6	60.9	62.2
57°	63.0	57.3	57.9	57.3	58.8	59.8
57.5°	60.7	55.2	55.8	55.2	56.5	57.5
58°	58.5	53.2	53.7	53.2	54.5	55.3
58.5°	56.4	51.3	51.7	51.3	52.6	53.2
59°	54.2	49.5	49.8	49.6	50.6	51.4
59.5°	52.2	47.7	48.0	47.8	48.6	49.5
60°	50.2	45.9	46.3	46.0	46.9	47.6
60.5°	48.4	44.3	44.7	44.3	45.3	45.9
61°	46.6	42.6	43.2	42.7	43.7	44.1
61.5°	44.9	41.2	41.7	41.2	41.9	42.3
62°	43.2	39.8	40.1	39.8	40.3	40.7
62.5°	41.7	38.4	38.6	38.4	38.8	39.2
63°	40.3	36.9	37.3	36.9	37.5	37.8
63.5°	38.7	35.6	36.0	35.6	36.2	36.3
64°	37.1	34.4	34.8	34.4	34.8	35.0
64.5°	35.8	33.2	33.6	33.2	33.6	33.6
65°	34.5	32.1	32.5	32.1	32.3	32.4
65.5°	33.3	31.1	31.2	31.0	31.2	31.3
66°	32.1	29.9	30.3	29.8	30.1	30.1
66.5°	31.2	29.2	29.3	29.0	29.2	29.1
67°	29.8	27.9	28.2	27.8	27.9	27.8



TEST NUMBER: P294442

CATALOG NUMBER: RL4069S1EWHDM-5000K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
67.5°	28.9	27.1	27.3	27.0	27.0	26.9
68°	27.7	26.0	26.3	25.9	25.9	25.9
68.5°	27.0	25.3	25.6	25.1	25.1	24.8
69°	25.9	24.3	24.5	24.2	24.1	24.1
69.5°	25.0	23.6	23.9	23.5	23.4	23.1
70°	24.2	22.8	23.0	22.5	22.5	22.3
70.5°	23.4	22.2	22.2	22.0	21.9	21.4
71°	22.4	21.3	21.4	21.1	21.0	20.5
71.5°	21.7	20.5	20.7	20.4	20.3	19.8
72°	20.9	19.9	20.2	19.6	19.5	19.0
72.5°	20.4	19.3	19.4	18.9	18.7	18.5
73°	19.6	18.6	18.6	18.5	18.3	17.6
73.5°	18.8	17.9	18.0	17.7	17.5	16.9
74°	18.5	17.5	17.4	16.9	16.7	16.5
74.5°	17.6	16.8	16.7	16.5	16.3	16.0
75°	17.0	16.2	16.2	15.9	15.7	15.1
75.5°	16.7	15.8	15.9	15.1	15.0	14.5
76°	16.0	15.1	15.0	14.6	14.4	14.1
76.5°	15.1	14.3	14.4	14.0	13.8	13.2
77°	14.5	13.4	13.5	13.1	13.0	12.6
77.5°	14.0	12.8	12.9	12.6	12.5	12.1
78°	13.2	12.1	12.2	11.8	11.7	11.5
78.5°	12.6	11.4	11.4	11.3	11.2	11.0
79°	11.7	10.7	10.7	10.3	10.3	10.0
79.5°	11.2	9.8	9.9	9.7	9.5	9.6
80°	10.4	9.3	9.5	9.1	8.9	8.8
80.5°	9.6	8.6	8.6	8.2	8.4	8.0
81°	9.1	7.9	7.7	7.8	7.7	7.7
81.5°	8.2	7.3	7.1	6.9	7.0	6.9
82°	7.8	6.3	6.3	6.1	6.1	6.2
82.5°	6.9	5.9	5.9	5.4	5.8	5.7
83°	6.1	5.1	5.0	4.9	4.9	5.0
83.5°	5.5	4.2	4.2	4.2	4.2	4.3
84°	4.9	3.9	3.9	3.4	3.9	4.1
84.5°	4.2	3.1	3.0	2.9	3.1	3.3
85°	3.5	2.5	2.4	2.4	2.4	2.6
85.5°	3.0	2.1	2.1	1.8	2.3	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°	1.4	0.6	0.5	0.6	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: P294442

CATALOG NUMBER: RL4069S1EWHDM-5000K

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)