

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: P294439

Luminaire Tested: **RL4069S1EWHDM-3000K**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P294439
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-3000K
Description: 4 IN HALO RL DIRECT MOUNT (600 LUMEN) - 3000K
Light Source: -
Ballast/Driver: -

Summary

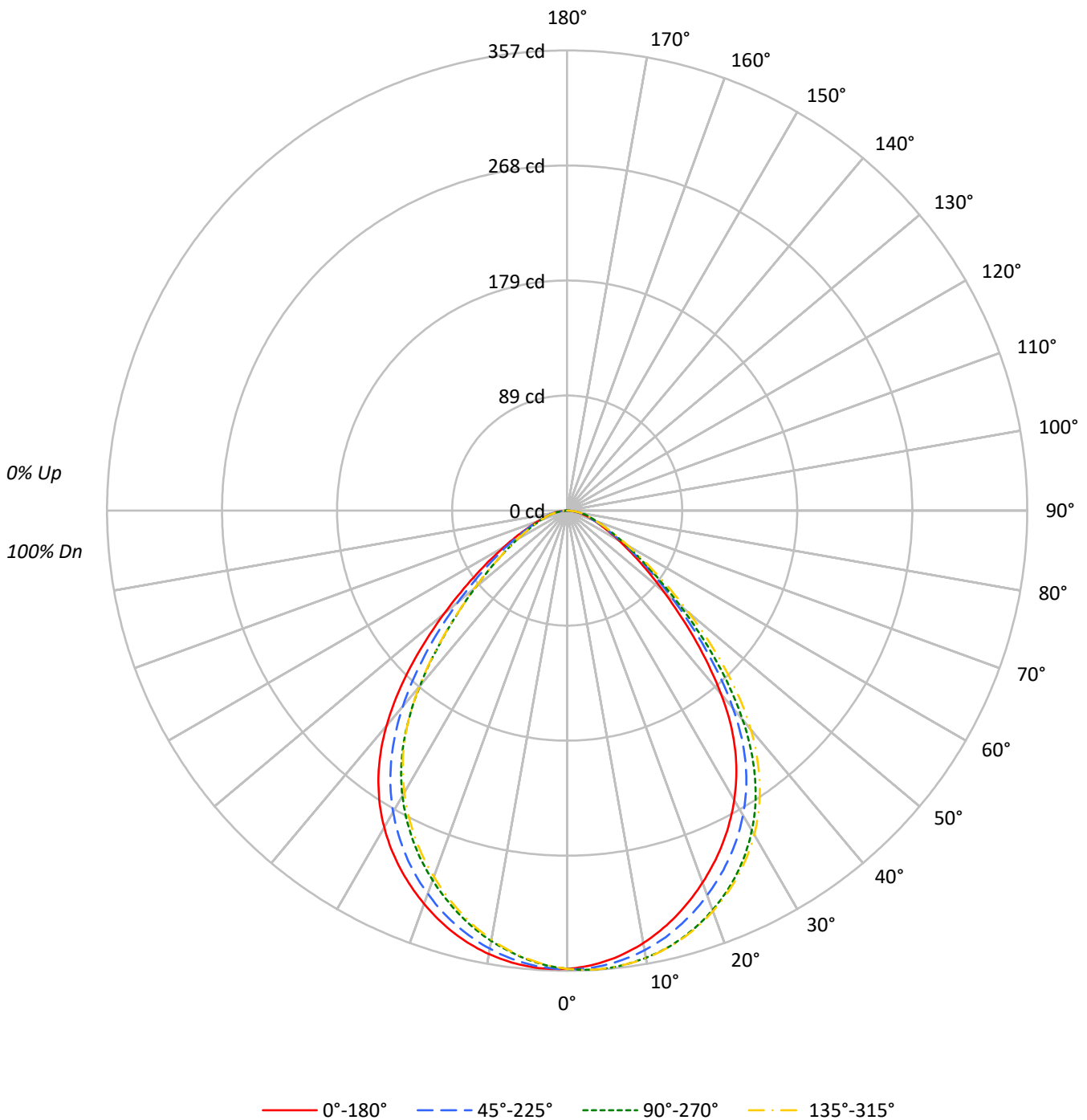
Lumens per Lamp: 644.87 (1 lamp)
Luminaire Lumens: 652.0 lumens
Efficiency: 101.1%
Efficacy: 74.9 lumens/watt
Spacing Criteria (0/90/45): 1.15 / 1.15 / 1.19
Luminous Opening: Circular (Dia: 0.33' x H: 0')
CIE Type: Direct

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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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	120	120	120	120	118	118	118	118	112	112	112	108	108	108	103	103	103	101					101			
1	112	109	105	102	110	106	103	100	102	100	97	98	96	94	95	93	92	90					90			
2	104	97	92	87	102	96	90	86	92	88	84	89	85	82	86	83	81	79					79			
3	97	88	81	75	94	86	80	75	83	78	74	81	76	72	78	74	71	69					69			
4	90	79	72	66	88	78	71	66	76	70	65	74	68	64	71	67	63	61					61			
5	83	72	64	59	81	71	64	58	69	63	58	67	62	57	66	61	57	55					55			
6	78	66	58	52	76	65	58	52	63	57	52	62	56	51	60	55	51	49					49			
7	73	61	53	47	71	60	52	47	58	52	47	57	51	46	56	50	46	44					44			
8	68	56	48	43	67	55	48	43	54	47	42	53	47	42	52	46	42	40					40			
9	64	52	44	39	63	51	44	39	50	43	39	49	43	39	48	42	38	37					37			
10	60	48	41	36	59	47	40	36	47	40	36	46	40	35	45	39	35	34					34			

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	43699	43699	43699	43699
5°	43237	43940	43755	43126
10°	42502	43949	43587	42290
15°	41438	43702	43142	41221
20°	40150	43117	42438	39901
25°	38660	42184	41534	38335
30°	36770	40657	40260	36259
35°	34120	38139	38304	33205
40°	29765	33967	34994	28531
45°	24098	28077	29883	22934
50°	18730	21750	23891	17813
55°	14479	16450	18335	13815
60°	11376	12777	13956	10983
65°	9157	10291	10785	9070
70°	7795	8729	8549	7938
75°	6978	8117	7595	7500
80°	6084	7782	7216	6438
85°	3524	6625	5779	3383



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ZONAL LUMENS:

Zone	Lumens	% Fixture	% Lamp
0°-10°	33.5	5.1	5.2
10°-20°	93.8	14.4	14.6
20°-30°	136.2	20.9	21.1
30°-40°	148.8	22.8	23.1
40°-50°	117.0	18.0	18.1
50°-60°	67.3	10.3	10.4
60°-70°	34.2	5.3	5.3
70°-80°	16.8	2.6	2.6
80°-90°	4.2	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°	263.5	40.4	40.9
0°-40°	412.4	63.2	63.9
0°-60°	596.7	91.5	92.5
0°-90°	652.0	100.0	101.1
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°	652.0	100.0	101.1

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	356	356	356	356	356	
5°	351	356	355	350	351	33
15°	326	344	339	324	326	92
25°	285	311	306	283	285	131
35°	228	254	255	221	228	141
45°	139	162	172	132	139	107
55°	68	77	86	64	68	62
65°	32	35	37	31	32	32
75°	15	17	16	16	15	16
85°	2	5	4	2	2	3
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
0°	355.7	355.7	355.7	355.7	355.7	355.7	355.7	355.7	355.7	355.7	355.7
0.5°	355.3	355.4	355.9	356.9	355.8	355.8	355.8	355.7	355.7	355.6	355.8
1°	355.0	355.3	355.9	356.9	356.1	356.1	356.0	355.9	355.8	355.6	355.7
1.5°	354.6	355.1	355.8	356.9	356.3	356.3	356.3	356.0	355.8	355.6	355.5
2°	354.2	354.8	355.7	356.9	356.5	356.5	356.5	356.1	355.9	355.6	355.3
2.5°	353.7	354.5	355.5	356.8	356.6	356.6	356.6	356.2	355.8	355.4	355.0
3°	353.2	354.1	355.2	356.7	356.6	356.7	356.6	356.2	355.7	355.1	354.7
3.5°	352.6	353.7	354.9	356.5	356.6	356.7	356.6	356.2	355.6	354.9	354.4
4°	352.0	353.2	354.5	356.3	356.6	356.7	356.6	356.1	355.4	354.6	354.0
4.5°	351.3	352.7	354.1	356.1	356.5	356.7	356.5	356.0	355.2	354.2	353.5
5°	350.6	352.1	353.6	355.7	356.3	356.6	356.3	355.8	354.8	353.8	353.0
5.5°	349.9	351.5	353.1	355.4	356.2	356.4	356.2	355.5	354.5	353.3	352.4
6°	349.1	350.8	352.5	354.9	355.9	356.2	356.0	355.2	354.2	352.8	351.8
6.5°	348.2	350.1	351.9	354.5	355.6	356.0	355.7	354.8	353.7	352.3	351.1
7°	347.2	349.3	351.2	353.9	355.3	355.6	355.3	354.4	353.3	351.6	350.5
7.5°	346.2	348.4	350.5	353.4	354.9	355.3	354.9	353.9	352.7	351.0	349.7
8°	345.2	347.6	349.8	352.7	354.4	354.9	354.5	353.4	352.1	350.3	348.9
8.5°	344.1	346.6	349.0	352.1	353.9	354.4	354.1	352.9	351.5	349.6	348.0
9°	343.0	345.6	348.1	351.4	353.4	353.9	353.6	352.3	350.8	348.8	347.2
9.5°	341.9	344.6	347.2	350.6	352.9	353.3	353.0	351.6	350.1	347.9	346.2
10°	340.7	343.5	346.3	349.8	352.3	352.7	352.4	350.9	349.4	347.0	345.2
10.5°	339.4	342.3	345.3	349.0	351.6	352.1	351.8	350.2	348.6	346.1	344.2
11°	338.1	341.1	344.2	348.1	350.9	351.4	351.1	349.5	347.7	345.1	343.1
11.5°	336.7	339.9	343.1	347.1	350.2	350.7	350.4	348.6	346.9	344.0	341.9
12°	335.3	338.6	342.0	346.1	349.4	349.9	349.6	347.8	345.9	343.0	340.8
12.5°	333.9	337.3	340.8	345.0	348.6	349.1	348.8	346.9	344.9	341.9	339.6
13°	332.3	336.0	339.7	343.9	347.7	348.3	348.0	345.9	343.9	340.8	338.3
13.5°	330.8	334.6	338.3	342.8	346.8	347.3	347.1	344.9	342.8	339.6	337.1
14°	329.2	333.1	337.0	341.6	345.8	346.4	346.1	343.9	341.7	338.3	335.7
14.5°	327.5	331.6	335.6	340.4	344.7	345.4	345.1	342.8	340.5	337.0	334.3
15°	325.8	330.1	334.2	339.1	343.6	344.3	344.0	341.7	339.2	335.7	332.9
15.5°	324.1	328.5	332.7	337.7	342.4	343.2	342.9	340.5	338.0	334.3	331.4
16°	322.4	326.8	331.2	336.3	341.2	342.1	341.7	339.3	336.7	332.8	329.9
16.5°	320.6	325.1	329.6	334.9	339.9	340.9	340.5	338.0	335.3	331.4	328.4
17°	318.8	323.4	328.1	333.5	338.7	339.6	339.2	336.7	333.9	329.8	326.8
17.5°	316.9	321.7	326.4	331.9	337.3	338.2	337.9	335.3	332.5	328.3	325.2
18°	315.0	319.9	324.7	330.4	335.9	336.8	336.6	333.9	331.0	326.6	323.5
18.5°	313.0	318.1	323.0	328.8	334.5	335.4	335.1	332.4	329.4	325.0	321.7
19°	311.1	316.2	321.2	327.2	333.0	334.0	333.7	330.9	327.9	323.3	319.9
19.5°	309.1	314.4	319.5	325.4	331.4	332.5	332.1	329.4	326.2	321.6	318.1
20°	307.1	312.4	317.6	323.7	329.8	330.9	330.6	327.8	324.6	319.9	316.2
20.5°	305.1	310.5	315.8	321.9	328.2	329.3	329.1	326.2	322.9	318.1	314.4
21°	303.0	308.6	313.9	320.2	326.5	327.6	327.5	324.5	321.3	316.2	312.5
21.5°	300.8	306.6	312.0	318.3	324.8	325.9	325.8	322.9	319.5	314.4	310.6
22°	298.7	304.5	310.0	316.4	323.0	324.1	324.1	321.2	317.8	312.6	308.6



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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°	296.5	302.5	308.0	314.6	321.2	322.3	322.3	319.5	315.9	310.7	306.6
23°	294.4	300.4	306.0	312.6	319.3	320.5	320.6	317.7	314.1	308.8	304.4
23.5°	292.2	298.2	304.0	310.5	317.3	318.6	318.8	315.9	312.2	306.8	302.3
24°	289.9	296.1	301.8	308.5	315.4	316.6	317.0	314.1	310.3	304.7	300.2
24.5°	287.6	293.9	299.7	306.3	313.4	314.6	315.1	312.1	308.4	302.5	298.0
25°	285.2	291.6	297.5	304.1	311.2	312.5	313.1	310.1	306.4	300.4	295.7
25.5°	282.8	289.2	295.2	301.9	309.0	310.4	311.1	308.1	304.3	298.2	293.3
26°	280.3	286.8	292.9	299.6	306.7	308.2	309.0	306.1	302.2	296.0	290.9
26.5°	277.9	284.4	290.6	297.2	304.4	305.9	306.8	304.0	300.1	293.8	288.4
27°	275.4	282.0	288.3	294.8	302.1	303.6	304.6	301.9	297.9	291.5	286.0
27.5°	272.8	279.5	285.8	292.4	299.7	301.3	302.4	299.7	295.7	289.1	283.5
28°	270.2	277.0	283.3	289.9	297.2	298.8	300.1	297.5	293.4	286.7	280.9
28.5°	267.5	274.4	280.8	287.3	294.7	296.2	297.7	295.2	291.1	284.2	278.4
29°	264.9	271.8	278.1	284.7	292.1	293.6	295.3	292.9	288.7	281.8	275.6
29.5°	262.0	269.1	275.5	282.0	289.3	290.9	292.8	290.5	286.2	279.3	272.8
30°	259.2	266.4	272.8	279.2	286.6	288.2	290.3	288.0	283.8	276.6	270.0
30.5°	256.4	263.6	270.0	276.3	283.8	285.4	287.7	285.5	281.2	274.0	267.2
31°	253.5	260.8	267.1	273.4	280.9	282.5	285.0	283.0	278.7	271.3	264.3
31.5°	250.4	257.9	264.3	270.5	278.0	279.5	282.3	280.3	276.0	268.4	261.3
32°	247.4	255.0	261.3	267.3	274.9	276.4	279.4	277.6	273.3	265.6	258.3
32.5°	244.3	251.9	258.3	264.2	271.7	273.2	276.5	274.7	270.5	262.7	255.1
33°	241.1	248.8	255.1	260.8	268.4	270.0	273.4	271.8	267.6	259.6	251.8
33.5°	237.7	245.5	251.9	257.5	264.9	266.7	270.3	268.9	264.7	256.6	248.5
34°	234.5	242.2	248.6	254.0	261.4	263.3	267.1	265.8	261.6	253.5	245.1
34.5°	231.1	238.8	245.2	250.4	257.9	259.7	263.9	262.7	258.5	250.3	241.7
35°	227.5	235.3	241.7	246.7	254.3	256.0	260.5	259.4	255.4	246.9	238.2
35.5°	223.8	231.7	238.0	243.0	250.5	252.1	257.1	256.2	252.1	243.6	234.5
36°	219.9	228.0	234.3	239.1	246.6	248.2	253.5	252.8	248.7	240.1	230.8
36.5°	216.0	224.1	230.4	235.2	242.6	244.3	249.8	249.3	245.2	236.6	227.0
37°	212.0	220.1	226.4	231.0	238.5	240.2	246.0	245.7	241.6	232.9	223.1
37.5°	208.0	216.1	222.4	226.8	234.3	236.0	242.2	242.0	237.9	229.1	219.2
38°	203.7	211.9	218.2	222.5	230.1	231.7	238.3	238.3	234.1	225.3	215.2
38.5°	199.3	207.7	213.8	218.0	225.7	227.4	234.4	234.3	230.3	221.2	211.1
39°	194.9	203.3	209.4	213.6	221.2	222.8	230.2	230.3	226.4	217.1	207.1
39.5°	190.3	198.8	204.9	209.0	216.6	218.1	226.0	226.2	222.4	213.0	202.7
40°	185.6	194.3	200.3	204.3	211.8	213.4	221.6	222.1	218.2	208.8	198.4
40.5°	181.0	189.5	195.7	199.5	207.1	208.6	217.1	217.7	213.9	204.4	194.0
41°	176.3	184.7	190.9	194.6	202.1	203.8	212.5	213.3	209.5	200.0	189.5
41.5°	171.6	180.0	186.1	189.6	197.3	198.9	207.9	208.9	205.1	195.7	185.0
42°	166.8	175.2	181.2	184.7	192.4	193.8	203.2	204.3	200.6	191.1	180.6
42.5°	162.0	170.4	176.3	179.8	187.3	188.7	198.3	199.5	196.0	186.4	176.0
43°	157.3	165.5	171.4	174.8	182.2	183.5	193.4	194.7	191.4	181.8	171.4
43.5°	152.5	160.7	166.5	169.8	177.1	178.3	188.4	189.9	186.6	177.0	166.8
44°	147.8	155.9	161.5	164.7	171.9	173.1	183.3	185.0	181.8	172.3	162.1
44.5°	143.2	151.1	156.6	159.6	166.8	167.9	178.2	180.1	176.9	167.7	157.6



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
45°	138.7	146.3	151.9	154.7	161.6	162.8	173.0	175.2	172.0	163.0	153.1
45.5°	134.2	141.7	147.1	149.8	156.6	157.6	168.0	170.2	167.3	158.2	148.5
46°	129.8	137.2	142.3	145.0	151.6	152.4	162.8	165.1	162.5	153.4	144.1
46.5°	125.5	132.6	137.7	140.2	146.6	147.2	157.7	160.1	157.6	148.6	139.7
47°	121.2	128.2	133.0	135.4	141.6	142.2	152.5	155.2	152.8	144.0	135.2
47.5°	117.0	123.8	128.4	130.8	136.8	137.3	147.5	150.3	148.1	139.4	130.9
48°	113.1	119.5	124.1	126.1	132.0	132.4	142.5	145.4	143.3	134.9	126.7
48.5°	109.1	115.5	119.8	121.7	127.3	127.6	137.6	140.7	138.6	130.5	122.6
49°	105.2	111.5	115.7	117.3	122.7	122.9	132.7	136.0	134.0	126.1	118.4
49.5°	101.7	107.5	111.6	113.1	118.2	118.4	127.9	131.2	129.5	121.7	114.5
50°	98.0	103.8	107.6	108.9	113.8	113.9	123.2	126.5	125.0	117.4	110.6
50.5°	94.4	100.1	103.6	104.9	109.4	109.6	118.6	121.9	120.6	113.3	106.7
51°	91.0	96.5	99.8	101.0	105.3	105.3	114.1	117.5	116.2	109.3	103.0
51.5°	87.8	92.9	96.1	97.1	101.3	101.3	109.8	113.2	112.1	105.4	99.3
52°	84.7	89.5	92.6	93.4	97.4	97.4	105.4	108.9	107.9	101.6	95.8
52.5°	81.6	86.2	89.2	89.9	93.6	93.6	101.3	104.8	104.0	97.9	92.3
53°	78.5	83.0	85.8	86.5	90.1	89.9	97.4	100.8	100.2	94.2	89.0
53.5°	75.7	79.9	82.7	83.1	86.6	86.4	93.5	96.9	96.4	90.7	85.8
54°	72.9	77.0	79.4	79.9	83.2	83.0	89.8	93.0	92.7	87.3	82.7
54.5°	70.2	74.1	76.4	76.8	80.0	79.7	86.2	89.3	89.1	83.9	79.5
55°	67.6	71.3	73.5	73.8	76.8	76.5	82.7	85.8	85.6	80.8	76.6
55.5°	65.2	68.6	70.8	70.9	73.8	73.5	79.3	82.4	82.3	77.6	73.7
56°	62.7	66.0	67.9	68.2	71.0	70.8	76.1	79.0	79.0	74.7	71.0
56.5°	60.4	63.5	65.3	65.5	68.5	67.9	73.1	75.8	76.0	71.8	68.5
57°	58.1	61.1	62.8	63.0	65.7	65.2	70.2	72.7	73.0	69.2	65.8
57.5°	55.9	58.9	60.3	60.6	63.2	62.6	67.3	69.7	70.1	66.3	63.3
58°	53.8	56.6	58.0	58.3	60.7	60.2	64.5	66.9	67.2	63.7	60.8
58.5°	51.8	54.5	55.7	56.0	58.4	58.0	61.9	64.1	64.4	61.2	58.4
59°	50.0	52.4	53.6	53.7	56.3	55.7	59.4	61.5	61.8	58.8	56.3
59.5°	48.1	50.3	51.6	51.5	54.1	53.6	56.9	58.9	59.2	56.5	54.1
60°	46.3	48.4	49.5	49.6	52.0	51.6	54.7	56.5	56.8	54.2	51.9
60.5°	44.6	46.6	47.5	47.7	50.0	49.5	52.6	53.9	54.5	51.9	49.9
61°	42.9	44.8	45.6	45.9	48.1	47.6	50.3	51.8	52.2	49.9	47.9
61.5°	41.1	43.1	43.8	44.2	46.3	45.8	48.2	49.5	49.9	47.8	46.1
62°	39.5	41.3	42.2	42.4	44.6	44.0	46.3	47.4	47.8	45.8	44.3
62.5°	38.1	39.7	40.5	40.7	42.8	42.5	44.4	45.4	45.9	44.0	42.6
63°	36.8	38.1	38.9	39.1	41.2	40.8	42.6	43.6	44.0	42.3	40.8
63.5°	35.3	36.8	37.4	37.6	39.7	39.3	40.8	41.6	42.2	40.6	39.2
64°	34.0	35.4	35.8	36.1	38.3	37.7	39.2	39.8	40.3	38.9	37.8
64.5°	32.7	33.9	34.3	34.7	36.9	36.2	37.6	38.1	38.6	37.3	36.3
65°	31.5	32.6	33.0	33.5	35.4	34.8	36.1	36.5	37.1	35.7	34.9
65.5°	30.4	31.3	31.6	32.1	34.1	33.6	34.6	34.9	35.4	34.1	33.6
66°	29.2	30.2	30.4	30.9	32.9	32.3	33.3	33.5	33.8	32.8	32.2
66.5°	28.3	29.1	29.4	29.7	31.6	31.1	31.9	32.1	32.3	31.4	31.0
67°	27.0	27.9	28.4	28.5	30.4	30.0	30.6	30.7	31.0	30.3	30.0



TEST NUMBER: P294439

CATALOG NUMBER: RL4069S1EWHDM-3000K

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
67.5°	26.1	26.8	26.9	27.5	29.4	28.8	29.4	29.6	29.6	28.9	28.6
68°	25.2	25.9	26.0	26.4	28.4	27.7	28.4	28.3	28.5	27.7	27.7
68.5°	24.2	24.9	25.0	25.3	27.1	26.7	27.0	27.0	27.1	26.5	26.6
69°	23.4	23.8	23.9	24.4	26.2	25.6	26.2	26.0	26.1	25.4	25.5
69.5°	22.5	23.1	23.0	23.4	25.1	24.9	25.0	25.0	25.0	24.6	24.7
70°	21.7	22.1	22.0	22.6	24.3	23.7	24.0	23.8	23.8	23.5	23.6
70.5°	20.8	21.4	21.3	21.6	23.4	23.0	23.2	22.9	22.9	22.5	22.7
71°	19.9	20.4	20.4	20.9	22.6	22.1	22.2	21.8	21.8	21.6	21.9
71.5°	19.2	19.7	19.8	20.1	21.8	21.4	21.4	21.1	21.0	20.8	21.3
72°	18.5	18.9	18.9	19.6	21.2	20.5	20.4	20.1	20.0	19.9	20.3
72.5°	18.0	18.1	18.1	18.7	20.4	19.8	19.7	19.5	19.4	19.1	19.7
73°	17.1	17.5	17.4	18.0	19.7	19.1	18.8	18.7	18.5	18.3	18.9
73.5°	16.5	16.8	16.8	17.2	19.0	18.3	18.1	18.0	17.9	17.7	18.1
74°	16.1	16.2	16.3	16.7	18.2	17.7	17.3	17.2	17.1	17.0	17.4
74.5°	15.6	15.6	15.6	16.2	17.9	17.1	16.7	16.5	16.3	16.4	16.9
75°	14.7	15.3	15.0	15.6	17.1	16.4	16.2	16.1	16.0	15.7	16.2
75.5°	14.1	14.5	14.6	14.9	16.3	15.8	15.4	15.4	15.4	15.2	15.6
76°	13.7	14.0	14.2	14.5	16.0	15.3	14.7	14.7	14.6	14.7	15.3
76.5°	12.9	13.4	13.4	14.1	15.3	14.7	14.4	14.3	14.1	14.3	14.5
77°	12.3	12.7	12.7	13.2	14.6	14.2	13.8	13.8	13.6	13.5	14.2
77.5°	11.7	12.2	12.3	12.6	14.1	13.5	13.0	13.1	12.9	12.8	13.3
78°	11.1	11.7	11.6	12.1	13.5	12.8	12.6	12.7	12.5	12.3	12.6
78.5°	10.7	11.0	11.1	11.3	12.7	12.3	12.2	12.2	12.0	11.7	12.2
79°	9.7	10.4	10.4	11.0	12.2	11.6	11.6	11.4	11.3	11.2	11.3
79.5°	9.3	9.7	9.6	10.2	11.6	11.1	11.0	11.1	10.9	10.6	10.9
80°	8.6	9.3	9.3	9.4	11.0	10.6	10.4	10.5	10.2	9.8	10.1
80.5°	7.8	8.6	8.5	9.0	10.4	9.9	9.8	9.7	9.5	9.4	9.3
81°	7.5	7.7	7.7	8.3	9.5	9.3	9.3	9.3	9.2	8.7	8.7
81.5°	6.7	7.4	7.5	7.5	9.2	8.8	8.7	8.7	8.4	7.9	8.1
82°	6.0	6.5	6.7	6.9	8.3	8.0	8.2	7.9	7.6	7.5	7.6
82.5°	5.6	5.9	6.0	6.3	7.6	7.6	7.5	7.6	7.3	6.7	6.8
83°	4.9	5.6	5.6	5.7	7.1	6.8	6.8	6.8	6.5	6.0	5.9
83.5°	4.2	4.8	4.9	5.1	6.3	6.1	6.2	6.0	5.8	5.7	5.7
84°	4.0	4.1	4.2	4.7	5.8	5.8	5.8	5.7	5.5	4.9	4.9
84.5°	3.2	3.8	4.0	4.0	5.1	5.1	5.1	5.0	4.8	4.2	4.1
85°	2.5	3.0	3.2	3.3	4.7	4.5	4.7	4.3	4.1	4.0	3.8
85.5°	2.3	2.3	2.5	2.9	4.0	4.0	4.0	4.0	3.8	3.2	3.0
86°	1.8	2.2	2.3	2.3	3.4	3.3	3.3	3.2	3.0	2.5	2.4
86.5°	1.6	1.5	1.7	2.1	2.9	2.9	2.8	2.5	2.4	2.3	2.2
87°	0.6	0.8	1.4	1.3	2.3	2.3	2.3	2.3	2.2	1.8	1.4
87.5°	0.5	0.5	0.6	0.7	2.1	2.1	2.0	1.7	1.5	1.6	0.9
88°	0.0	0.0	0.5	0.5	1.4	1.4	1.4	1.6	0.9	0.6	0.5
88.5°	0.0	0.0	0.0	0.0	0.7	0.7	0.7	0.6	0.5	0.5	0.0
89°	0.0	0.0	0.0	0.0	0.5	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: P294439

CATALOG NUMBER: RL4069S1EWHDM-3000K

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: P294439

CATALOG NUMBER: RL4069S1EWHDM-3000K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
0°	355.7	355.7	355.7	355.7	355.7	355.7
0.5°	356.5	355.1	355.1	355.0	355.1	355.3
1°	356.3	354.8	354.7	354.6	354.7	355.0
1.5°	356.0	354.3	354.2	354.1	354.3	354.6
2°	355.6	353.8	353.6	353.6	353.8	354.2
2.5°	355.3	353.3	353.1	353.0	353.3	353.7
3°	354.8	352.7	352.5	352.3	352.7	353.2
3.5°	354.3	352.0	351.8	351.6	352.0	352.6
4°	353.8	351.3	351.0	350.9	351.3	352.0
4.5°	353.2	350.5	350.3	350.0	350.6	351.3
5°	352.6	349.7	349.4	349.2	349.8	350.6
5.5°	351.9	348.8	348.5	348.3	348.9	349.9
6°	351.1	347.9	347.6	347.3	348.0	349.1
6.5°	350.4	346.9	346.6	346.3	347.1	348.2
7°	349.5	345.9	345.6	345.2	346.1	347.2
7.5°	348.7	344.8	344.4	344.1	344.9	346.2
8°	347.8	343.7	343.3	343.0	343.8	345.2
8.5°	346.8	342.6	342.1	341.8	342.6	344.1
9°	345.8	341.5	340.8	340.6	341.4	343.0
9.5°	344.7	340.3	339.6	339.3	340.2	341.9
10°	343.6	339.0	338.3	338.0	338.9	340.7
10.5°	342.5	337.7	336.9	336.5	337.6	339.4
11°	341.3	336.4	335.5	335.1	336.2	338.1
11.5°	340.1	335.0	334.1	333.6	334.9	336.7
12°	338.9	333.5	332.6	332.1	333.4	335.3
12.5°	337.5	332.1	331.1	330.6	331.8	333.9
13°	336.2	330.6	329.6	328.9	330.3	332.3
13.5°	334.8	329.0	328.0	327.3	328.8	330.8
14°	333.3	327.4	326.3	325.5	327.1	329.2
14.5°	331.8	325.8	324.6	323.8	325.4	327.5
15°	330.2	324.1	322.9	322.0	323.7	325.8
15.5°	328.7	322.3	321.1	320.2	321.9	324.1
16°	327.1	320.6	319.3	318.4	320.0	322.4
16.5°	325.4	318.8	317.4	316.5	318.2	320.6
17°	323.7	316.9	315.5	314.5	316.3	318.8
17.5°	321.9	315.0	313.7	312.6	314.4	316.9
18°	320.1	313.1	311.7	310.6	312.5	315.0
18.5°	318.3	311.1	309.7	308.5	310.5	313.0
19°	316.4	309.2	307.7	306.5	308.5	311.1
19.5°	314.6	307.2	305.6	304.4	306.4	309.1
20°	312.6	305.2	303.5	302.3	304.3	307.1
20.5°	310.7	303.1	301.5	300.2	302.3	305.1
21°	308.6	301.0	299.4	298.1	300.2	303.0
21.5°	306.6	298.8	297.2	295.9	298.0	300.8
22°	304.5	296.7	295.0	293.6	295.9	298.7



TEST NUMBER: P294439

CATALOG NUMBER: RL4069S1EWHDM-3000K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
22.5°	302.3	294.5	292.8	291.4	293.6	296.5
23°	300.3	292.3	290.4	289.2	291.3	294.4
23.5°	298.0	290.0	288.1	286.8	289.0	292.2
24°	295.8	287.6	285.8	284.4	286.7	289.9
24.5°	293.5	285.2	283.4	282.0	284.3	287.6
25°	291.1	282.8	281.0	279.5	281.9	285.2
25.5°	288.6	280.2	278.6	277.0	279.4	282.8
26°	286.2	277.7	276.0	274.4	276.9	280.3
26.5°	283.8	275.1	273.4	271.9	274.4	277.9
27°	281.2	272.6	270.8	269.3	271.8	275.4
27.5°	278.6	269.9	268.2	266.7	269.2	272.8
28°	275.9	267.1	265.6	263.9	266.6	270.2
28.5°	273.2	264.3	262.8	261.1	263.9	267.5
29°	270.4	261.5	260.0	258.3	261.1	264.9
29.5°	267.5	258.5	257.2	255.5	258.3	262.0
30°	264.7	255.6	254.4	252.6	255.4	259.2
30.5°	261.6	252.6	251.4	249.7	252.5	256.4
31°	258.6	249.4	248.5	246.7	249.6	253.5
31.5°	255.5	246.3	245.4	243.6	246.6	250.4
32°	252.3	243.0	242.3	240.6	243.6	247.4
32.5°	249.0	239.7	239.1	237.4	240.4	244.3
33°	245.6	236.2	235.8	234.1	237.2	241.1
33.5°	242.2	232.7	232.4	230.8	233.9	237.7
34°	238.7	229.1	228.9	227.5	230.5	234.5
34.5°	235.0	225.3	225.4	224.0	227.1	231.1
35°	231.3	221.4	221.8	220.4	223.6	227.5
35.5°	227.5	217.5	218.0	216.7	219.9	223.8
36°	223.5	213.4	214.2	212.8	216.2	219.9
36.5°	219.5	209.3	210.3	208.8	212.3	216.0
37°	215.4	205.0	206.2	204.9	208.3	212.0
37.5°	211.3	200.7	202.0	200.8	204.1	208.0
38°	207.1	196.3	197.8	196.5	199.9	203.7
38.5°	202.7	191.8	193.6	192.1	195.5	199.3
39°	198.3	187.2	189.2	187.6	191.2	194.9
39.5°	194.0	182.6	184.6	183.0	186.7	190.3
40°	189.5	177.9	180.0	178.4	182.1	185.6
40.5°	185.0	173.3	175.3	173.8	177.4	181.0
41°	180.5	168.7	170.5	169.3	172.7	176.3
41.5°	175.9	164.0	165.8	164.6	168.0	171.6
42°	171.2	159.4	161.2	160.0	163.4	166.8
42.5°	166.5	154.6	156.5	155.3	158.8	162.0
43°	161.9	149.9	151.8	150.6	154.2	157.3
43.5°	157.3	145.3	147.2	146.0	149.5	152.5
44°	152.7	140.8	142.5	141.5	144.8	147.8
44.5°	148.2	136.3	138.0	136.9	140.3	143.2



TEST NUMBER: P294439

CATALOG NUMBER: RL4069S1EWHDM-3000K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
45°	143.7	132.0	133.4	132.5	135.7	138.7
45.5°	139.3	127.6	129.1	128.1	131.3	134.2
46°	134.8	123.5	124.8	123.9	126.9	129.8
46.5°	130.4	119.2	120.7	119.6	122.7	125.5
47°	126.1	115.1	116.5	115.5	118.5	121.2
47.5°	122.1	111.3	112.6	111.5	114.4	117.0
48°	118.0	107.4	108.7	107.7	110.5	113.1
48.5°	114.0	103.8	104.8	104.0	106.7	109.1
49°	110.2	100.2	101.2	100.4	103.0	105.2
49.5°	106.4	96.6	97.6	96.9	99.4	101.7
50°	102.7	93.2	94.2	93.5	96.0	98.0
50.5°	99.1	89.9	90.8	90.0	92.5	94.4
51°	95.6	86.7	87.6	86.8	89.1	91.0
51.5°	92.2	83.6	84.4	83.7	85.9	87.8
52°	89.0	80.6	81.2	80.7	82.7	84.7
52.5°	85.8	77.7	78.4	77.8	79.7	81.6
53°	82.6	74.9	75.5	75.0	76.9	78.5
53.5°	79.6	72.2	72.8	72.3	74.1	75.7
54°	76.6	69.6	70.2	69.6	71.4	72.9
54.5°	73.9	67.0	67.6	67.2	68.8	70.2
55°	71.2	64.5	65.1	64.7	66.2	67.6
55.5°	68.7	62.3	62.6	62.3	63.7	65.2
56°	66.0	60.0	60.4	60.1	61.5	62.7
56.5°	63.6	57.9	58.3	57.9	59.2	60.4
57°	61.3	55.7	56.3	55.7	57.2	58.1
57.5°	59.0	53.7	54.3	53.7	54.9	55.9
58°	56.9	51.7	52.2	51.7	53.0	53.8
58.5°	54.8	49.9	50.2	49.9	51.1	51.8
59°	52.7	48.1	48.4	48.2	49.1	50.0
59.5°	50.8	46.4	46.7	46.4	47.3	48.1
60°	48.8	44.7	45.1	44.7	45.6	46.3
60.5°	47.1	43.1	43.4	43.1	44.1	44.6
61°	45.3	41.5	42.0	41.5	42.5	42.9
61.5°	43.7	40.1	40.5	40.1	40.7	41.1
62°	42.0	38.7	39.0	38.7	39.2	39.5
62.5°	40.6	37.4	37.5	37.3	37.7	38.1
63°	39.1	35.9	36.3	35.8	36.4	36.8
63.5°	37.7	34.6	35.0	34.6	35.2	35.3
64°	36.1	33.5	33.8	33.4	33.8	34.0
64.5°	34.8	32.3	32.6	32.3	32.6	32.7
65°	33.5	31.2	31.6	31.2	31.4	31.5
65.5°	32.3	30.3	30.4	30.1	30.3	30.4
66°	31.2	29.1	29.4	29.0	29.3	29.2
66.5°	30.3	28.4	28.5	28.2	28.3	28.3
67°	29.0	27.1	27.4	27.0	27.1	27.0



TEST NUMBER: P294439

CATALOG NUMBER: RL4069S1EWHDM-3000K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
67.5°	28.1	26.4	26.5	26.3	26.3	26.1
68°	26.9	25.3	25.6	25.2	25.2	25.2
68.5°	26.2	24.6	24.9	24.4	24.4	24.2
69°	25.2	23.6	23.9	23.5	23.4	23.4
69.5°	24.3	23.0	23.3	22.8	22.7	22.5
70°	23.5	22.1	22.4	21.9	21.9	21.7
70.5°	22.8	21.6	21.6	21.4	21.3	20.8
71°	21.8	20.7	20.8	20.5	20.4	19.9
71.5°	21.1	20.0	20.1	19.9	19.7	19.2
72°	20.3	19.3	19.7	19.1	19.0	18.5
72.5°	19.8	18.8	18.9	18.3	18.2	18.0
73°	19.0	18.1	18.1	17.9	17.8	17.1
73.5°	18.3	17.4	17.5	17.2	17.0	16.5
74°	18.0	17.0	16.9	16.5	16.3	16.1
74.5°	17.1	16.4	16.2	16.0	15.9	15.6
75°	16.5	15.8	15.7	15.5	15.3	14.7
75.5°	16.2	15.3	15.4	14.7	14.6	14.1
76°	15.5	14.6	14.6	14.2	14.0	13.7
76.5°	14.7	13.9	14.0	13.6	13.4	12.9
77°	14.1	13.1	13.1	12.8	12.6	12.3
77.5°	13.6	12.4	12.5	12.2	12.1	11.7
78°	12.8	11.8	11.9	11.4	11.4	11.1
78.5°	12.3	11.1	11.1	11.0	10.9	10.7
79°	11.4	10.4	10.4	10.1	10.0	9.7
79.5°	10.9	9.5	9.7	9.4	9.3	9.3
80°	10.1	9.1	9.2	8.8	8.7	8.6
80.5°	9.4	8.4	8.4	7.9	8.1	7.8
81°	8.9	7.6	7.5	7.6	7.5	7.5
81.5°	7.9	7.1	6.9	6.7	6.8	6.7
82°	7.6	6.1	6.2	5.9	5.9	6.0
82.5°	6.7	5.8	5.7	5.2	5.6	5.6
83°	5.9	4.9	4.9	4.7	4.8	4.9
83.5°	5.4	4.1	4.1	4.0	4.1	4.2
84°	4.8	3.8	3.8	3.3	3.8	4.0
84.5°	4.1	3.0	3.0	2.8	3.0	3.2
85°	3.4	2.4	2.3	2.3	2.3	2.5
85.5°	2.9	2.1	2.1	1.7	2.2	2.3
86°	2.3	1.4	1.4	1.4	1.5	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°	0.7	0.0	0.0	0.0	0.3	0.5
88°	0.5	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: P294439

CATALOG NUMBER: RL4069S1EWHDM-3000K

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)