

Scaled data based on original data using
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-State
Lighting Products

Test Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

Brand: HALO

Report Number: P522088

Luminaire Tested: **RLLV4069SE010WHDM-2700K-UNIT**

Issue Date: 5/10/2021

Test Information

Test Method: LM-79-08
Report Number: P522088
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (A1809075A001)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 5/10/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: HALO
Catalog Number: RLLV4069SE010WHDM-2700K-UNIT
Description: Surface Mount Downlight Fixture, Single Unit
Light Source: (48) 2700K CCT, 92 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

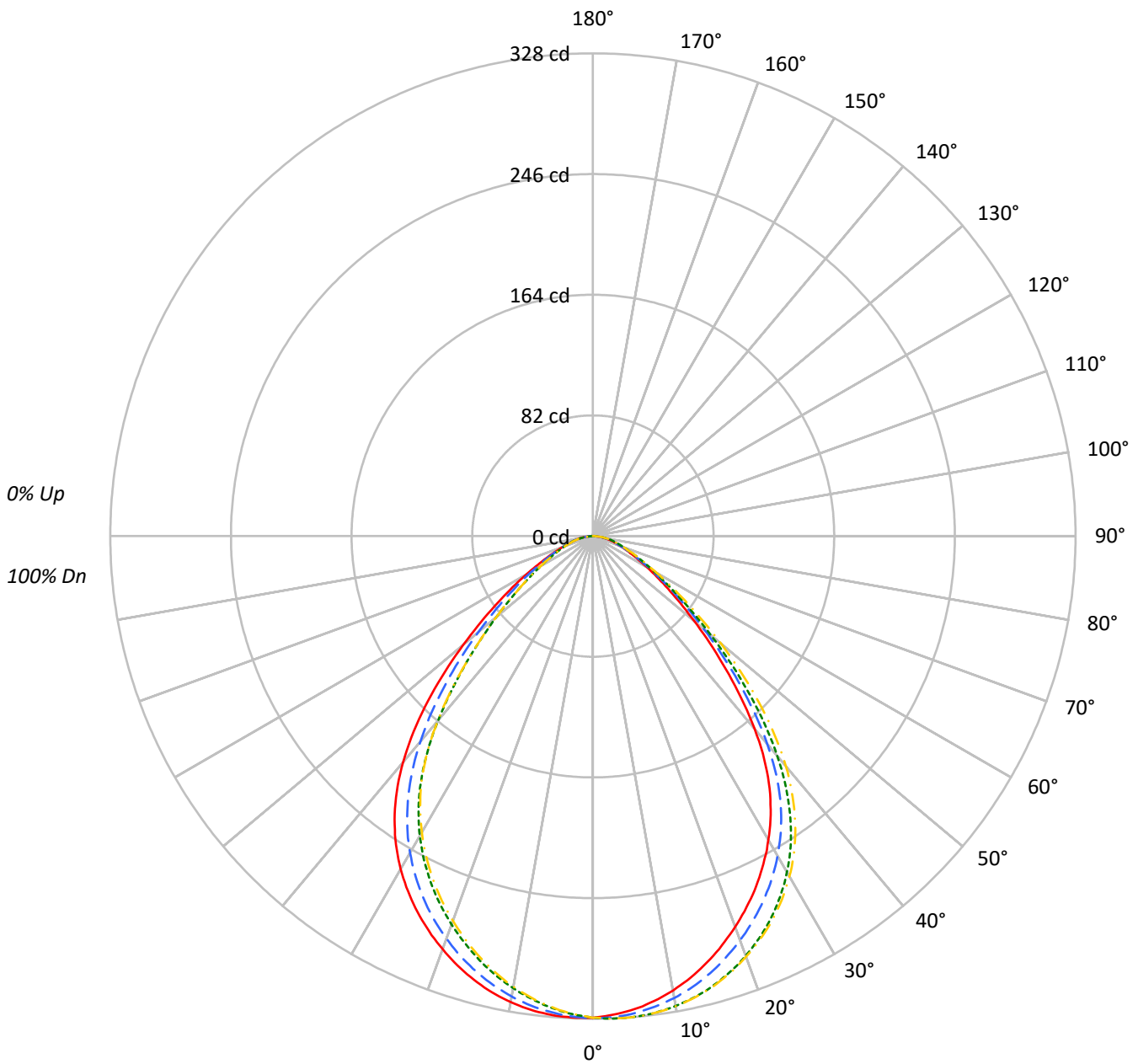
Lumens per Lamp: 644.87 (48 lamps)
Luminaire Lumens: 600.0 lumens
Efficiency: 1.9%
Efficacy: 88.2 lumens/watt
Spacing Criteria (0/90/45): 1.15 / 1.15 / 1.19
Luminous Opening: Circular (Dia: 0.33' x H: 0')
CIE Type: Direct

Input Watts (W): 6.8
Input Voltage (V): 120
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: P522088
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Luminous Intensity Polar Plot



— 0°-180° - - 45°-225° - · - · 90°-270° - · - · 135°-315°



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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				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	0
RCR																					
0	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
1	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
3	2	2	2	1	2	2	2	1	2	1	1	2	1	1	2	1	1	2	1	1	1
4	2	2	1	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
5	2	1	1	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
6	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
7	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
8	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
9	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
10	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	40452	40452	40452	40452
5°	40023	40681	40507	39924
10°	39344	40687	40348	39156
15°	38360	40459	39934	38168
20°	37169	39918	39286	36945
25°	35797	39056	38456	35483
30°	34037	37633	37276	33566
35°	31594	35306	35456	30734
40°	27557	31445	32397	26411
45°	22303	25991	27669	21237
50°	17343	20131	22112	16497
55°	13403	15234	16980	12799
60°	10530	11840	12928	10159
65°	8481	9534	9972	8393
70°	7227	8094	7914	7336
75°	6447	7497	7020	6924
80°	5623	7189	6690	5979
85°	3262	6098	5389	3120



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ZONAL LUMENS:

Zone	Lumens	% Fixture	% Lamp
0°-10°	30.8	5.1	0.1
10°-20°	86.4	14.4	0.3
20°-30°	125.4	20.9	0.4
30°-40°	137.0	22.8	0.4
40°-50°	107.7	18.0	0.3
50°-60°	62.0	10.3	0.2
60°-70°	31.5	5.3	0.1
70°-80°	15.5	2.6	0.1
80°-90°	3.9	0.6	0.0
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°	242.5	40.4	0.8
0°-40°	379.5	63.2	1.2
0°-60°	549.1	91.5	1.8
0°-90°	600.0	100.0	1.9
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°	600.0	100.0	1.9

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	327	327	327	327	327	
5°	323	328	326	322	323	31
15°	300	316	312	298	300	84
25°	262	286	282	260	262	121
35°	209	234	235	204	209	130
45°	128	149	158	122	128	99
55°	62	71	79	59	62	57
65°	29	33	34	29	29	29
75°	14	16	15	14	14	14
85°	2	4	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°	327.3	327.3	327.3	327.3	327.3	327.3	327.3	327.3	327.3	327.3	327.3
0.5°	327.0	327.1	327.5	328.4	327.4	327.4	327.4	327.3	327.3	327.2	327.4
1°	326.7	327.0	327.5	328.4	327.7	327.7	327.6	327.5	327.4	327.2	327.3
1.5°	326.3	326.8	327.4	328.4	327.9	327.9	327.9	327.6	327.4	327.2	327.1
2°	325.9	326.5	327.3	328.4	328.1	328.1	328.1	327.7	327.5	327.2	327.0
2.5°	325.5	326.2	327.1	328.3	328.2	328.2	328.2	327.8	327.4	327.1	326.7
3°	325.0	325.9	326.9	328.3	328.2	328.3	328.2	327.8	327.3	326.8	326.4
3.5°	324.5	325.5	326.6	328.1	328.2	328.3	328.2	327.8	327.2	326.6	326.1
4°	323.9	325.0	326.2	327.9	328.2	328.3	328.2	327.7	327.1	326.3	325.8
4.5°	323.3	324.6	325.9	327.7	328.1	328.3	328.1	327.6	326.9	325.9	325.3
5°	322.6	324.0	325.4	327.3	327.9	328.2	327.9	327.4	326.5	325.6	324.8
5.5°	322.0	323.5	324.9	327.1	327.8	328.0	327.8	327.1	326.2	325.1	324.3
6°	321.3	322.8	324.4	326.6	327.5	327.8	327.6	326.9	325.9	324.7	323.7
6.5°	320.4	322.2	323.8	326.2	327.2	327.6	327.3	326.5	325.5	324.2	323.1
7°	319.5	321.4	323.2	325.7	327.0	327.2	327.0	326.1	325.1	323.6	322.5
7.5°	318.6	320.6	322.5	325.2	326.6	327.0	326.6	325.7	324.6	323.0	321.8
8°	317.7	319.9	321.9	324.6	326.1	326.6	326.2	325.2	324.0	322.4	321.1
8.5°	316.7	319.0	321.2	324.0	325.7	326.1	325.9	324.8	323.5	321.7	320.2
9°	315.6	318.0	320.3	323.4	325.2	325.7	325.4	324.2	322.8	321.0	319.5
9.5°	314.6	317.1	319.5	322.6	324.8	325.1	324.8	323.6	322.2	320.2	318.6
10°	313.5	316.1	318.7	321.9	324.2	324.6	324.3	322.9	321.5	319.3	317.7
10.5°	312.3	315.0	317.8	321.2	323.6	324.0	323.7	322.3	320.8	318.5	316.7
11°	311.1	313.9	316.7	320.3	322.9	323.4	323.1	321.6	320.0	317.6	315.7
11.5°	309.8	312.8	315.7	319.4	322.3	322.7	322.5	320.8	319.2	316.6	314.6
12°	308.6	311.6	314.7	318.5	321.5	322.0	321.7	320.1	318.3	315.6	313.6
12.5°	307.3	310.4	313.6	317.5	320.8	321.3	321.0	319.2	317.4	314.6	312.5
13°	305.8	309.2	312.6	316.5	320.0	320.5	320.2	318.3	316.5	313.6	311.3
13.5°	304.4	307.9	311.3	315.5	319.1	319.6	319.4	317.4	315.5	312.5	310.2
14°	302.9	306.5	310.1	314.4	318.2	318.8	318.5	316.5	314.4	311.3	308.9
14.5°	301.4	305.2	308.8	313.3	317.2	317.9	317.6	315.5	313.3	310.1	307.6
15°	299.8	303.8	307.5	312.1	316.2	316.8	316.6	314.4	312.1	308.9	306.3
15.5°	298.3	302.3	306.2	310.8	315.1	315.8	315.6	313.3	311.0	307.6	305.0
16°	296.7	300.7	304.8	309.5	314.0	314.8	314.4	312.2	309.8	306.3	303.6
16.5°	295.0	299.2	303.3	308.2	312.8	313.7	313.3	311.0	308.6	305.0	302.2
17°	293.4	297.6	301.9	306.9	311.7	312.5	312.1	309.8	307.3	303.5	300.7
17.5°	291.6	296.0	300.4	305.4	310.4	311.2	310.9	308.6	306.0	302.1	299.3
18°	289.9	294.4	298.8	304.0	309.1	309.9	309.8	307.3	304.6	300.6	297.7
18.5°	288.0	292.7	297.2	302.6	307.8	308.6	308.4	305.9	303.1	299.1	296.0
19°	286.3	291.0	295.6	301.1	306.4	307.4	307.1	304.5	301.7	297.5	294.4
19.5°	284.4	289.3	294.0	299.4	305.0	306.0	305.6	303.1	300.2	296.0	292.7
20°	282.6	287.5	292.3	297.9	303.5	304.5	304.2	301.7	298.7	294.4	291.0
20.5°	280.8	285.7	290.6	296.2	302.0	303.0	302.9	300.2	297.1	292.7	289.3
21°	278.8	284.0	288.9	294.7	300.5	301.5	301.4	298.6	295.7	291.0	287.6
21.5°	276.8	282.1	287.1	292.9	298.9	299.9	299.8	297.1	294.0	289.3	285.8
22°	274.9	280.2	285.3	291.2	297.2	298.3	298.3	295.6	292.5	287.7	284.0



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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°	272.9	278.4	283.4	289.5	295.6	296.6	296.6	294.0	290.7	285.9	282.1
23°	270.9	276.4	281.6	287.7	293.8	294.9	295.0	292.4	289.0	284.2	280.1
23.5°	268.9	274.4	279.8	285.7	292.0	293.2	293.4	290.7	287.3	282.3	278.2
24°	266.8	272.5	277.7	283.9	290.2	291.3	291.7	289.0	285.6	280.4	276.3
24.5°	264.7	270.5	275.8	281.9	288.4	289.5	290.0	287.2	283.8	278.4	274.2
25°	262.5	268.3	273.8	279.8	286.4	287.6	288.1	285.4	282.0	276.4	272.1
25.5°	260.2	266.1	271.7	277.8	284.4	285.6	286.3	283.5	280.0	274.4	269.9
26°	257.9	263.9	269.5	275.7	282.2	283.6	284.4	281.7	278.1	272.4	267.7
26.5°	255.7	261.7	267.4	273.5	280.1	281.5	282.3	279.8	276.2	270.4	265.4
27°	253.4	259.5	265.3	271.3	278.0	279.4	280.3	277.8	274.1	268.3	263.2
27.5°	251.0	257.2	263.0	269.1	275.8	277.3	278.3	275.8	272.1	266.0	260.9
28°	248.6	254.9	260.7	266.8	273.5	275.0	276.2	273.8	270.0	263.8	258.5
28.5°	246.2	252.5	258.4	264.4	271.2	272.6	274.0	271.7	267.9	261.5	256.2
29°	243.8	250.1	255.9	262.0	268.8	270.2	271.7	269.5	265.7	259.3	253.6
29.5°	241.1	247.6	253.5	259.5	266.2	267.7	269.4	267.3	263.4	257.0	251.0
30°	238.5	245.2	251.0	256.9	263.7	265.2	267.1	265.0	261.2	254.5	248.5
30.5°	236.0	242.6	248.5	254.3	261.2	262.6	264.8	262.7	258.8	252.1	245.9
31°	233.3	240.0	245.8	251.6	258.5	260.0	262.3	260.4	256.5	249.7	243.2
31.5°	230.4	237.3	243.2	248.9	255.8	257.2	259.8	257.9	254.0	247.0	240.5
32°	227.7	234.7	240.5	246.0	253.0	254.4	257.1	255.5	251.5	244.4	237.7
32.5°	224.8	231.8	237.7	243.1	250.0	251.4	254.4	252.8	248.9	241.7	234.8
33°	221.9	229.0	234.8	240.0	247.0	248.5	251.6	250.1	246.3	238.9	231.7
33.5°	218.7	225.9	231.8	237.0	243.8	245.4	248.7	247.5	243.6	236.1	228.7
34°	215.8	222.9	228.8	233.7	240.6	242.3	245.8	244.6	240.7	233.3	225.6
34.5°	212.7	219.8	225.6	230.4	237.3	239.0	242.9	241.7	237.9	230.3	222.4
35°	209.4	216.5	222.4	227.0	234.0	235.6	239.7	238.7	235.0	227.2	219.2
35.5°	206.0	213.2	219.0	223.6	230.5	232.0	236.6	235.8	232.0	224.2	215.8
36°	202.4	209.8	215.6	220.0	226.9	228.4	233.3	232.6	228.9	221.0	212.4
36.5°	198.8	206.2	212.0	216.4	223.3	224.8	229.9	229.4	225.6	217.7	208.9
37°	195.1	202.5	208.3	212.6	219.5	221.0	226.4	226.1	222.3	214.3	205.3
37.5°	191.4	198.9	204.7	208.7	215.6	217.2	222.9	222.7	218.9	210.8	201.7
38°	187.5	195.0	200.8	204.8	211.7	213.2	219.3	219.3	215.4	207.3	198.0
38.5°	183.4	191.1	196.7	200.6	207.7	209.3	215.7	215.6	211.9	203.6	194.3
39°	179.4	187.1	192.7	196.6	203.6	205.0	211.8	211.9	208.3	199.8	190.6
39.5°	175.1	182.9	188.6	192.3	199.3	200.7	208.0	208.2	204.7	196.0	186.5
40°	170.8	178.8	184.3	188.0	194.9	196.4	203.9	204.4	200.8	192.1	182.6
40.5°	166.6	174.4	180.1	183.6	190.6	192.0	199.8	200.3	196.8	188.1	178.5
41°	162.2	170.0	175.7	179.1	186.0	187.5	195.6	196.3	192.8	184.0	174.4
41.5°	157.9	165.6	171.3	174.5	181.6	183.0	191.3	192.2	188.7	180.1	170.2
42°	153.5	161.2	166.7	170.0	177.1	178.3	187.0	188.0	184.6	175.9	166.2
42.5°	149.1	156.8	162.2	165.5	172.4	173.6	182.5	183.6	180.4	171.5	162.0
43°	144.8	152.3	157.7	160.9	167.7	168.9	178.0	179.2	176.1	167.3	157.7
43.5°	140.3	147.9	153.2	156.3	163.0	164.1	173.4	174.8	171.7	162.9	153.5
44°	136.0	143.5	148.6	151.6	158.2	159.3	168.7	170.2	167.3	158.6	149.2
44.5°	131.8	139.0	144.1	146.9	153.5	154.5	164.0	165.7	162.8	154.3	145.0



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
45°	127.6	134.6	139.8	142.4	148.7	149.8	159.2	161.2	158.3	150.0	140.9
45.5°	123.5	130.4	135.4	137.9	144.1	145.0	154.6	156.6	154.0	145.6	136.7
46°	119.4	126.3	131.0	133.4	139.5	140.2	149.8	151.9	149.5	141.2	132.6
46.5°	115.5	122.0	126.7	129.0	134.9	135.5	145.1	147.3	145.0	136.7	128.6
47°	111.5	118.0	122.4	124.6	130.3	130.9	140.3	142.8	140.6	132.5	124.4
47.5°	107.7	113.9	118.2	120.4	125.9	126.3	135.7	138.3	136.3	128.3	120.5
48°	104.1	110.0	114.2	116.0	121.5	121.8	131.1	133.8	131.9	124.1	116.6
48.5°	100.4	106.3	110.2	112.0	117.1	117.4	126.6	129.5	127.5	120.1	112.8
49°	96.8	102.6	106.5	107.9	112.9	113.1	122.1	125.2	123.3	116.0	109.0
49.5°	93.6	98.9	102.7	104.1	108.8	109.0	117.7	120.7	119.2	112.0	105.4
50°	90.2	95.5	99.0	100.2	104.7	104.8	113.4	116.4	115.0	108.0	101.8
50.5°	86.9	92.1	95.3	96.5	100.7	100.9	109.1	112.2	111.0	104.3	98.2
51°	83.7	88.8	91.8	92.9	96.9	96.9	105.0	108.1	106.9	100.6	94.8
51.5°	80.8	85.5	88.4	89.4	93.2	93.2	101.0	104.2	103.2	97.0	91.4
52°	77.9	82.4	85.2	86.0	89.6	89.6	97.0	100.2	99.3	93.5	88.2
52.5°	75.1	79.3	82.1	82.7	86.1	86.1	93.2	96.4	95.7	90.1	84.9
53°	72.2	76.4	79.0	79.6	82.9	82.7	89.6	92.8	92.2	86.7	81.9
53.5°	69.7	73.5	76.1	76.5	79.7	79.5	86.0	89.2	88.7	83.5	79.0
54°	67.1	70.9	73.1	73.5	76.6	76.4	82.6	85.6	85.3	80.3	76.1
54.5°	64.6	68.2	70.3	70.7	73.6	73.3	79.3	82.2	82.0	77.2	73.2
55°	62.2	65.6	67.6	67.9	70.7	70.4	76.1	79.0	78.8	74.4	70.5
55.5°	60.0	63.1	65.2	65.2	67.9	67.6	73.0	75.8	75.7	71.4	67.8
56°	57.7	60.7	62.5	62.8	65.3	65.2	70.0	72.7	72.7	68.7	65.3
56.5°	55.6	58.4	60.1	60.3	63.0	62.5	67.3	69.8	69.9	66.1	63.0
57°	53.5	56.2	57.8	58.0	60.5	60.0	64.6	66.9	67.2	63.7	60.6
57.5°	51.4	54.2	55.5	55.8	58.2	57.6	61.9	64.1	64.5	61.0	58.3
58°	49.5	52.1	53.4	53.7	55.9	55.4	59.4	61.6	61.8	58.6	56.0
58.5°	47.7	50.2	51.3	51.5	53.7	53.4	57.0	59.0	59.3	56.3	53.7
59°	46.0	48.2	49.3	49.4	51.8	51.3	54.7	56.6	56.9	54.1	51.8
59.5°	44.3	46.3	47.5	47.4	49.8	49.3	52.4	54.2	54.5	52.0	49.8
60°	42.6	44.5	45.6	45.6	47.9	47.5	50.3	52.0	52.3	49.9	47.8
60.5°	41.0	42.9	43.7	43.9	46.0	45.6	48.4	49.6	50.2	47.8	45.9
61°	39.5	41.2	42.0	42.2	44.3	43.8	46.3	47.7	48.0	45.9	44.1
61.5°	37.8	39.7	40.3	40.7	42.6	42.1	44.4	45.6	45.9	44.0	42.4
62°	36.3	38.0	38.8	39.0	41.0	40.5	42.6	43.6	44.0	42.1	40.8
62.5°	35.1	36.5	37.3	37.5	39.4	39.1	40.9	41.8	42.2	40.5	39.2
63°	33.9	35.1	35.8	36.0	37.9	37.5	39.2	40.1	40.5	38.9	37.5
63.5°	32.5	33.9	34.4	34.6	36.5	36.2	37.5	38.3	38.8	37.4	36.1
64°	31.3	32.6	32.9	33.2	35.2	34.7	36.1	36.6	37.1	35.8	34.8
64.5°	30.1	31.2	31.6	31.9	34.0	33.3	34.6	35.1	35.5	34.3	33.4
65°	29.0	30.0	30.4	30.8	32.6	32.0	33.2	33.6	34.1	32.9	32.1
65.5°	28.0	28.8	29.1	29.5	31.4	30.9	31.8	32.1	32.6	31.4	30.9
66°	26.9	27.8	28.0	28.4	30.3	29.7	30.6	30.8	31.1	30.2	29.6
66.5°	26.0	26.8	27.1	27.3	29.1	28.6	29.4	29.5	29.7	28.9	28.5
67°	24.8	25.7	26.1	26.2	28.0	27.6	28.2	28.3	28.5	27.9	27.6



TEST NUMBER: P522088

CATALOG NUMBER: RLLV4069SE010WHDM-2700K-UNIT

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
67.5°	24.0	24.7	24.8	25.3	27.1	26.5	27.1	27.2	27.2	26.6	26.3
68°	23.2	23.8	23.9	24.3	26.1	25.5	26.1	26.0	26.2	25.5	25.5
68.5°	22.3	22.9	23.0	23.3	24.9	24.6	24.8	24.8	24.9	24.4	24.5
69°	21.5	21.9	22.0	22.5	24.1	23.6	24.1	23.9	24.0	23.4	23.5
69.5°	20.7	21.3	21.2	21.5	23.1	22.9	23.0	23.0	23.0	22.6	22.7
70°	20.0	20.3	20.2	20.8	22.4	21.8	22.1	21.9	21.9	21.6	21.7
70.5°	19.1	19.7	19.6	19.9	21.5	21.2	21.3	21.1	21.1	20.7	20.9
71°	18.3	18.8	18.8	19.2	20.8	20.3	20.4	20.1	20.1	19.9	20.2
71.5°	17.7	18.1	18.2	18.5	20.1	19.7	19.7	19.4	19.3	19.1	19.6
72°	17.0	17.4	17.4	18.0	19.5	18.9	18.8	18.5	18.4	18.3	18.7
72.5°	16.6	16.7	16.7	17.2	18.8	18.2	18.1	17.9	17.9	17.6	18.1
73°	15.7	16.1	16.0	16.6	18.1	17.6	17.3	17.2	17.0	16.8	17.4
73.5°	15.2	15.5	15.5	15.8	17.5	16.8	16.7	16.6	16.5	16.3	16.7
74°	14.8	14.9	15.0	15.4	16.7	16.3	15.9	15.8	15.7	15.6	16.0
74.5°	14.4	14.4	14.4	14.9	16.5	15.7	15.4	15.2	15.0	15.1	15.6
75°	13.5	14.1	13.8	14.4	15.7	15.1	14.9	14.8	14.7	14.4	14.9
75.5°	13.0	13.3	13.4	13.7	15.0	14.5	14.2	14.2	14.2	14.0	14.4
76°	12.6	12.9	13.1	13.3	14.7	14.1	13.5	13.5	13.4	13.5	14.1
76.5°	11.9	12.3	12.3	13.0	14.1	13.5	13.3	13.2	13.0	13.2	13.3
77°	11.3	11.7	11.7	12.1	13.4	13.1	12.7	12.7	12.5	12.4	13.1
77.5°	10.8	11.2	11.3	11.6	13.0	12.4	12.0	12.1	11.9	11.8	12.2
78°	10.2	10.8	10.7	11.1	12.4	11.8	11.6	11.7	11.5	11.3	11.6
78.5°	9.8	10.1	10.2	10.4	11.7	11.3	11.2	11.2	11.0	10.8	11.2
79°	8.9	9.6	9.6	10.1	11.2	10.7	10.7	10.5	10.4	10.3	10.4
79.5°	8.6	8.9	8.8	9.4	10.7	10.2	10.1	10.2	10.0	9.8	10.0
80°	7.9	8.6	8.6	8.7	10.1	9.8	9.6	9.7	9.4	9.0	9.3
80.5°	7.2	7.9	7.8	8.3	9.6	9.1	9.0	8.9	8.7	8.7	8.6
81°	6.9	7.1	7.1	7.6	8.7	8.6	8.6	8.6	8.5	8.0	8.0
81.5°	6.2	6.8	6.9	6.9	8.5	8.1	8.0	8.0	7.7	7.3	7.5
82°	5.5	6.0	6.2	6.3	7.6	7.4	7.5	7.3	7.0	6.9	7.0
82.5°	5.2	5.4	5.5	5.8	7.0	7.0	6.9	7.0	6.7	6.2	6.3
83°	4.5	5.2	5.2	5.2	6.5	6.3	6.3	6.3	6.0	5.5	5.4
83.5°	3.9	4.4	4.5	4.7	5.8	5.6	5.7	5.5	5.3	5.2	5.2
84°	3.7	3.8	3.9	4.3	5.3	5.3	5.3	5.2	5.1	4.5	4.5
84.5°	2.9	3.5	3.7	3.7	4.7	4.7	4.7	4.6	4.4	3.9	3.8
85°	2.3	2.8	2.9	3.0	4.3	4.1	4.3	4.0	3.8	3.7	3.5
85.5°	2.1	2.1	2.3	2.7	3.7	3.7	3.7	3.7	3.5	2.9	2.8
86°	1.7	2.0	2.1	2.1	3.1	3.0	3.0	2.9	2.8	2.3	2.2
86.5°	1.5	1.4	1.6	1.9	2.7	2.7	2.6	2.3	2.2	2.1	2.0
87°	0.6	0.7	1.3	1.2	2.1	2.1	2.1	2.1	2.0	1.7	1.3
87.5°	0.5	0.5	0.6	0.6	1.9	1.9	1.8	1.6	1.4	1.5	0.8
88°	0.0	0.0	0.5	0.5	1.3	1.3	1.3	1.5	0.8	0.6	0.5
88.5°	0.0	0.0	0.0	0.0	0.6	0.6	0.6	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: P522088

CATALOG NUMBER: RLLV4069SE010WHDM-2700K-UNIT

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: P522088

CATALOG NUMBER: RLLV4069SE010WHDM-2700K-UNIT

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
0°	327.3	327.3	327.3	327.3	327.3	327.3
0.5°	328.1	326.8	326.8	326.7	326.8	327.0
1°	327.9	326.5	326.4	326.3	326.4	326.7
1.5°	327.6	326.0	325.9	325.9	326.0	326.3
2°	327.2	325.6	325.4	325.4	325.6	325.9
2.5°	327.0	325.1	324.9	324.8	325.1	325.5
3°	326.5	324.6	324.4	324.2	324.6	325.0
3.5°	326.0	323.9	323.7	323.6	323.9	324.5
4°	325.6	323.3	323.0	322.9	323.3	323.9
4.5°	325.0	322.5	322.4	322.1	322.6	323.3
5°	324.5	321.8	321.5	321.3	321.9	322.6
5.5°	323.8	321.0	320.7	320.5	321.1	322.0
6°	323.1	320.2	319.9	319.6	320.2	321.3
6.5°	322.5	319.2	319.0	318.7	319.4	320.4
7°	321.6	318.3	318.0	317.7	318.5	319.5
7.5°	320.9	317.3	316.9	316.7	317.4	318.6
8°	320.1	316.3	315.9	315.6	316.4	317.7
8.5°	319.1	315.3	314.8	314.5	315.3	316.7
9°	318.2	314.3	313.6	313.4	314.2	315.6
9.5°	317.2	313.2	312.5	312.2	313.1	314.6
10°	316.2	312.0	311.3	311.0	311.9	313.5
10.5°	315.2	310.8	310.0	309.7	310.7	312.3
11°	314.1	309.6	308.7	308.4	309.4	311.1
11.5°	313.0	308.3	307.5	307.0	308.2	309.8
12°	311.9	306.9	306.1	305.6	306.8	308.6
12.5°	310.6	305.6	304.7	304.2	305.3	307.3
13°	309.4	304.2	303.3	302.7	304.0	305.8
13.5°	308.1	302.8	301.8	301.2	302.6	304.4
14°	306.7	301.3	300.3	299.5	301.0	302.9
14.5°	305.3	299.8	298.7	298.0	299.4	301.4
15°	303.9	298.3	297.1	296.3	297.9	299.8
15.5°	302.5	296.6	295.5	294.7	296.2	298.3
16°	301.0	295.0	293.8	293.0	294.5	296.7
16.5°	299.4	293.4	292.1	291.3	292.8	295.0
17°	297.9	291.6	290.3	289.4	291.1	293.4
17.5°	296.2	289.9	288.7	287.7	289.3	291.6
18°	294.6	288.1	286.8	285.8	287.6	289.9
18.5°	292.9	286.3	285.0	283.9	285.7	288.0
19°	291.2	284.5	283.2	282.1	283.9	286.3
19.5°	289.5	282.7	281.2	280.1	282.0	284.4
20°	287.7	280.9	279.3	278.2	280.0	282.6
20.5°	285.9	278.9	277.5	276.3	278.2	280.8
21°	284.0	277.0	275.5	274.3	276.3	278.8
21.5°	282.1	275.0	273.5	272.3	274.2	276.8
22°	280.2	273.0	271.5	270.2	272.3	274.9



TEST NUMBER: P522088

CATALOG NUMBER: RLLV4069SE010WHDM-2700K-UNIT

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
22.5°	278.2	271.0	269.4	268.2	270.2	272.9
23°	276.3	269.0	267.2	266.1	268.1	270.9
23.5°	274.2	266.9	265.1	263.9	266.0	268.9
24°	272.2	264.7	263.0	261.7	263.8	266.8
24.5°	270.1	262.5	260.8	259.5	261.6	264.7
25°	267.9	260.2	258.6	257.2	259.4	262.5
25.5°	265.6	257.9	256.4	254.9	257.1	260.2
26°	263.4	255.6	254.0	252.5	254.8	257.9
26.5°	261.2	253.2	251.6	250.2	252.5	255.7
27°	258.8	250.9	249.2	247.8	250.1	253.4
27.5°	256.4	248.4	246.8	245.4	247.7	251.0
28°	253.9	245.8	244.4	242.9	245.3	248.6
28.5°	251.4	243.2	241.8	240.3	242.9	246.2
29°	248.8	240.6	239.3	237.7	240.3	243.8
29.5°	246.2	237.9	236.7	235.1	237.7	241.1
30°	243.6	235.2	234.1	232.5	235.0	238.5
30.5°	240.7	232.5	231.3	229.8	232.4	236.0
31°	238.0	229.5	228.7	227.0	229.7	233.3
31.5°	235.1	226.7	225.8	224.2	226.9	230.4
32°	232.2	223.6	223.0	221.4	224.2	227.7
32.5°	229.1	220.6	220.0	218.5	221.2	224.8
33°	226.0	217.4	217.0	215.4	218.3	221.9
33.5°	222.9	214.1	213.9	212.4	215.2	218.7
34°	219.7	210.8	210.6	209.4	212.1	215.8
34.5°	216.3	207.3	207.4	206.1	209.0	212.7
35°	212.9	203.7	204.1	202.8	205.8	209.4
35.5°	209.4	200.2	200.6	199.4	202.4	206.0
36°	205.7	196.4	197.1	195.8	199.0	202.4
36.5°	202.0	192.6	193.5	192.1	195.4	198.8
37°	198.2	188.6	189.8	188.6	191.7	195.1
37.5°	194.4	184.7	185.9	184.8	187.8	191.4
38°	190.6	180.6	182.0	180.8	184.0	187.5
38.5°	186.5	176.5	178.2	176.8	179.9	183.4
39°	182.5	172.3	174.1	172.6	176.0	179.4
39.5°	178.5	168.0	169.9	168.4	171.8	175.1
40°	174.4	163.7	165.6	164.2	167.6	170.8
40.5°	170.2	159.5	161.3	159.9	163.3	166.6
41°	166.1	155.2	156.9	155.8	158.9	162.2
41.5°	161.9	150.9	152.6	151.5	154.6	157.9
42°	157.5	146.7	148.3	147.2	150.4	153.5
42.5°	153.2	142.3	144.0	142.9	146.1	149.1
43°	149.0	137.9	139.7	138.6	141.9	144.8
43.5°	144.8	133.7	135.5	134.4	137.6	140.3
44°	140.5	129.6	131.1	130.2	133.3	136.0
44.5°	136.4	125.4	127.0	126.0	129.1	131.8



TEST NUMBER: P522088

CATALOG NUMBER: RLLV4069SE010WHDM-2700K-UNIT

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
45°	132.2	121.5	122.8	121.9	124.9	127.6
45.5°	128.2	117.4	118.8	117.9	120.8	123.5
46°	124.0	113.6	114.8	114.0	116.8	119.4
46.5°	120.0	109.7	111.1	110.1	112.9	115.5
47°	116.0	105.9	107.2	106.3	109.0	111.5
47.5°	112.4	102.4	103.6	102.6	105.3	107.7
48°	108.6	98.8	100.0	99.1	101.7	104.1
48.5°	104.9	95.5	96.4	95.7	98.2	100.4
49°	101.4	92.2	93.1	92.4	94.8	96.8
49.5°	97.9	88.9	89.8	89.2	91.5	93.6
50°	94.5	85.8	86.7	86.0	88.3	90.2
50.5°	91.2	82.7	83.6	82.8	85.1	86.9
51°	88.0	79.8	80.6	79.9	82.0	83.7
51.5°	84.8	76.9	77.7	77.0	79.0	80.8
52°	81.9	74.2	74.7	74.3	76.1	77.9
52.5°	79.0	71.5	72.1	71.6	73.3	75.1
53°	76.0	68.9	69.5	69.0	70.8	72.2
53.5°	73.3	66.4	67.0	66.5	68.2	69.7
54°	70.5	64.0	64.6	64.0	65.7	67.1
54.5°	68.0	61.7	62.2	61.8	63.3	64.6
55°	65.5	59.4	59.9	59.5	60.9	62.2
55.5°	63.2	57.3	57.6	57.3	58.6	60.0
56°	60.7	55.2	55.6	55.3	56.6	57.7
56.5°	58.5	53.3	53.7	53.3	54.5	55.6
57°	56.4	51.3	51.8	51.3	52.6	53.5
57.5°	54.3	49.4	50.0	49.4	50.5	51.4
58°	52.4	47.6	48.0	47.6	48.8	49.5
58.5°	50.4	45.9	46.2	45.9	47.0	47.7
59°	48.5	44.3	44.5	44.4	45.2	46.0
59.5°	46.7	42.7	43.0	42.7	43.5	44.3
60°	44.9	41.1	41.5	41.1	42.0	42.6
60.5°	43.3	39.7	39.9	39.7	40.6	41.0
61°	41.7	38.2	38.7	38.2	39.1	39.5
61.5°	40.2	36.9	37.3	36.9	37.5	37.8
62°	38.7	35.6	35.9	35.6	36.1	36.3
62.5°	37.4	34.4	34.5	34.3	34.7	35.1
63°	36.0	33.0	33.4	32.9	33.5	33.9
63.5°	34.7	31.8	32.2	31.8	32.4	32.5
64°	33.2	30.8	31.1	30.7	31.1	31.3
64.5°	32.0	29.7	30.0	29.7	30.0	30.1
65°	30.8	28.7	29.1	28.7	28.9	29.0
65.5°	29.7	27.9	28.0	27.7	27.9	28.0
66°	28.7	26.8	27.1	26.7	27.0	26.9
66.5°	27.9	26.1	26.2	26.0	26.0	26.0
67°	26.7	24.9	25.2	24.8	24.9	24.8



TEST NUMBER: P522088

CATALOG NUMBER: RLLV4069SE010WHDM-2700K-UNIT

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
67.5°	25.9	24.3	24.4	24.2	24.2	24.0
68°	24.8	23.3	23.6	23.2	23.2	23.2
68.5°	24.1	22.6	22.9	22.5	22.5	22.3
69°	23.2	21.7	22.0	21.6	21.5	21.5
69.5°	22.4	21.2	21.4	21.0	20.9	20.7
70°	21.6	20.3	20.6	20.2	20.2	20.0
70.5°	21.0	19.9	19.9	19.7	19.6	19.1
71°	20.1	19.0	19.1	18.9	18.8	18.3
71.5°	19.4	18.4	18.5	18.3	18.1	17.7
72°	18.7	17.8	18.1	17.6	17.5	17.0
72.5°	18.2	17.3	17.4	16.8	16.7	16.6
73°	17.5	16.7	16.7	16.5	16.4	15.7
73.5°	16.8	16.0	16.1	15.8	15.6	15.2
74°	16.6	15.6	15.6	15.2	15.0	14.8
74.5°	15.7	15.1	14.9	14.7	14.6	14.4
75°	15.2	14.5	14.4	14.3	14.1	13.5
75.5°	14.9	14.1	14.2	13.5	13.4	13.0
76°	14.3	13.4	13.4	13.1	12.9	12.6
76.5°	13.5	12.8	12.9	12.5	12.3	11.9
77°	13.0	12.1	12.1	11.8	11.6	11.3
77.5°	12.5	11.4	11.5	11.2	11.1	10.8
78°	11.8	10.9	11.0	10.5	10.5	10.2
78.5°	11.3	10.2	10.2	10.1	10.0	9.8
79°	10.5	9.6	9.6	9.3	9.2	8.9
79.5°	10.0	8.7	8.9	8.7	8.6	8.6
80°	9.3	8.4	8.5	8.1	8.0	7.9
80.5°	8.7	7.7	7.7	7.3	7.5	7.2
81°	8.2	7.0	6.9	7.0	6.9	6.9
81.5°	7.3	6.5	6.3	6.2	6.3	6.2
82°	7.0	5.6	5.7	5.4	5.4	5.5
82.5°	6.2	5.3	5.2	4.8	5.2	5.2
83°	5.4	4.5	4.5	4.3	4.4	4.5
83.5°	5.0	3.8	3.8	3.7	3.8	3.9
84°	4.4	3.5	3.5	3.0	3.5	3.7
84.5°	3.8	2.8	2.8	2.6	2.8	2.9
85°	3.1	2.2	2.1	2.1	2.1	2.3
85.5°	2.7	1.9	1.9	1.6	2.0	2.1
86°	2.1	1.3	1.3	1.3	1.4	1.7
86.5°	1.6	0.8	0.7	0.6	0.9	1.5
87°	1.2	0.6	0.5	0.5	0.5	0.6
87.5°	0.6	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: P522088

CATALOG NUMBER: RLLV4069SE010WHDM-2700K-UNIT

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)