

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: P522094

Luminaire Tested: **RLLV4069BLE40AWHDM-3000K-UNIT**

Issue Date: 5/10/2021

Test Information

Test Method: LM-79-08
Report Number: P522094
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: RLLV4069BLE40AWHDM-3000K-UNIT
Description: Surface Mount Downlight Fixture, Single Unit
Light Source: (16) 3000K CCT, 93 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

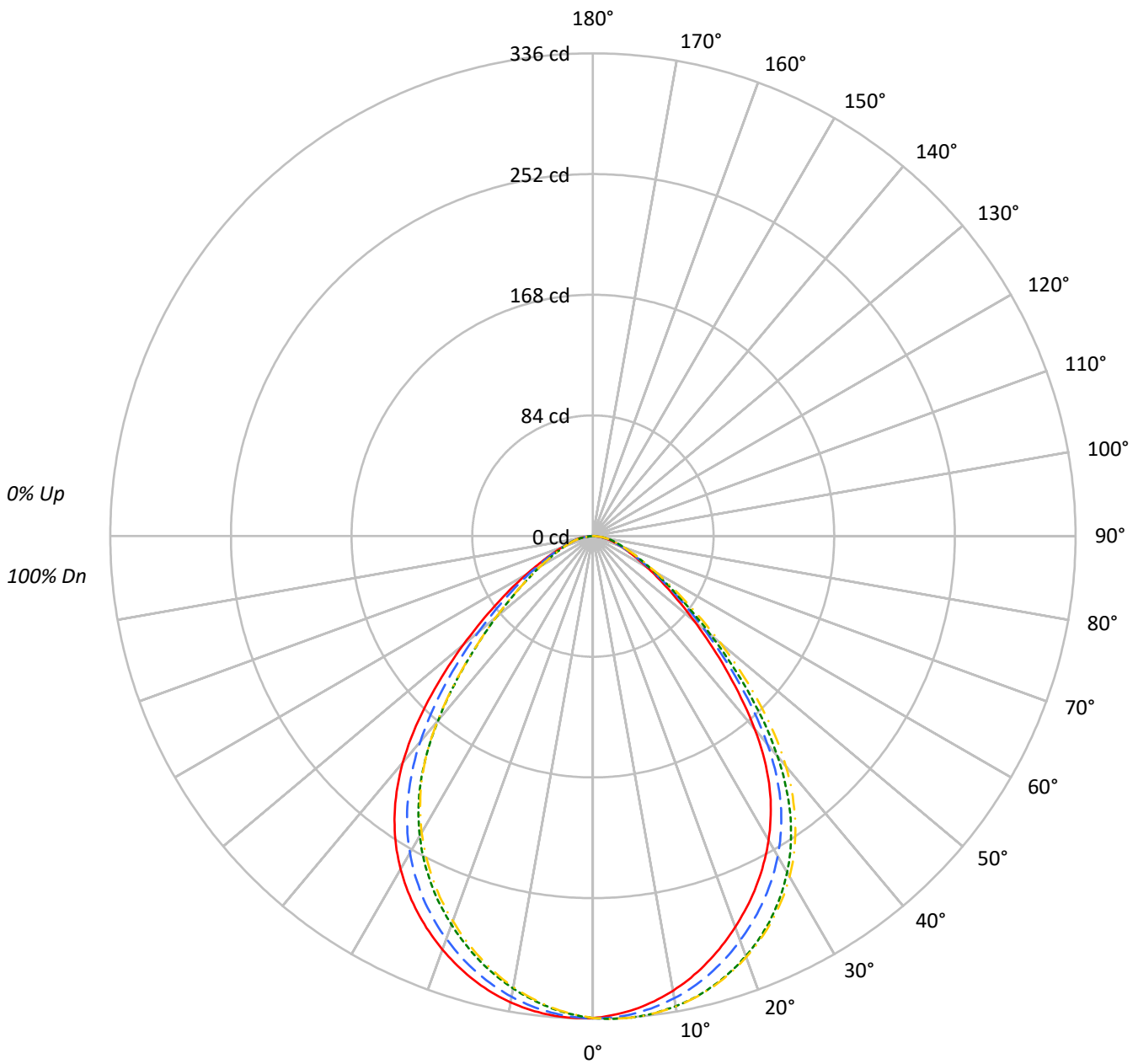
Lumens per Lamp: 644.87 (16 lamps)
Luminaire Lumens: 615.0 lumens
Efficiency: 6.0%
Efficacy: 99.2 lumens/watt
Spacing Criteria (0/90/45): 1.15 / 1.15 / 1.19
Luminous Opening: Circular (Dia: 0.33' x H: 0')
CIE Type: Direct

Input Watts (W): 6.2
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: P522094
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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				10
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	0
RCR																					
0	7	7	7	7	7	7	7	7	7	7	7	6	6	6	6	6	6	6	6	6	6
1	7	6	6	6	6	6	6	6	6	6	6	6	6	6	6	5	5	6	5	5	5
2	6	6	5	5	6	6	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
3	6	5	5	4	6	5	5	4	5	5	4	5	4	4	5	4	4	5	4	4	4
4	5	5	4	4	5	5	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
5	5	4	4	3	5	4	4	3	4	4	3	4	4	3	4	4	3	4	4	3	3
6	5	4	3	3	4	4	3	3	4	3	3	4	3	3	4	3	3	4	3	3	3
7	4	4	3	3	4	4	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
8	4	3	3	3	4	3	3	3	3	3	3	3	3	2	3	3	2	3	3	2	2
9	4	3	3	2	4	3	3	2	3	3	2	3	3	2	3	3	2	3	3	2	2
10	4	3	2	2	3	3	2	2	3	2	2	3	2	2	3	2	2	3	2	2	2

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	41465	41465	41465	41465
5°	41028	41698	41524	40929
10°	40335	41703	41364	40135
15°	39320	41469	40932	39115
20°	38103	40917	40273	37866
25°	36683	40024	39411	36383
30°	34893	38575	38204	34408
35°	32379	36196	36347	31503
40°	28250	32235	33203	27073
45°	22862	26637	28350	21761
50°	17766	20631	22669	16901
55°	13747	15601	17389	13101
60°	10802	12112	13249	10431
65°	8686	9768	10236	8598
70°	7408	8275	8094	7516
75°	6638	7688	7211	7115
80°	5765	7402	6833	6121
85°	3403	6239	5530	3262



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ZONAL LUMENS:

Zone	Lumens	% Fixture	% Lamp
0°-10°	31.6	5.1	0.3
10°-20°	88.5	14.4	0.9
20°-30°	128.5	20.9	1.2
30°-40°	140.4	22.8	1.4
40°-50°	110.4	18.0	1.1
50°-60°	63.5	10.3	0.6
60°-70°	32.3	5.3	0.3
70°-80°	15.9	2.6	0.2
80°-90°	4.0	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°	248.6	40.4	2.4
0°-40°	389.0	63.2	3.8
0°-60°	562.9	91.5	5.5
0°-90°	615.0	100.0	6.0
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°	615.0	100.0	6.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	336	336	336	336	336	
5°	331	336	335	330	331	31
15°	307	324	320	306	307	86
25°	269	294	289	267	269	124
35°	215	240	241	209	215	133
45°	131	152	162	124	131	101
55°	64	72	81	61	64	58
65°	30	33	35	29	30	30
75°	14	16	15	15	14	15
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°	335.5	335.5	335.5	335.5	335.5	335.5	335.5	335.5	335.5	335.5	335.5
0.5°	335.1	335.2	335.7	336.6	335.6	335.6	335.6	335.5	335.5	335.4	335.6
1°	334.9	335.1	335.7	336.6	335.9	335.9	335.8	335.7	335.6	335.4	335.5
1.5°	334.5	334.9	335.6	336.6	336.1	336.1	336.1	335.8	335.6	335.4	335.3
2°	334.1	334.7	335.5	336.6	336.3	336.3	336.3	335.9	335.7	335.4	335.1
2.5°	333.6	334.4	335.3	336.6	336.4	336.4	336.4	336.0	335.6	335.2	334.9
3°	333.2	334.0	335.0	336.5	336.4	336.5	336.4	336.0	335.5	334.9	334.6
3.5°	332.6	333.6	334.8	336.3	336.4	336.5	336.4	336.0	335.4	334.8	334.3
4°	332.0	333.2	334.4	336.1	336.4	336.5	336.4	335.9	335.2	334.5	333.9
4.5°	331.4	332.7	334.0	335.9	336.3	336.5	336.3	335.8	335.0	334.1	333.4
5°	330.7	332.1	333.5	335.5	336.1	336.4	336.1	335.6	334.7	333.7	333.0
5.5°	330.0	331.6	333.1	335.2	336.0	336.2	336.0	335.3	334.4	333.2	332.4
6°	329.3	330.9	332.5	334.8	335.7	336.0	335.8	335.0	334.1	332.8	331.8
6.5°	328.4	330.2	331.9	334.4	335.4	335.8	335.5	334.7	333.6	332.3	331.2
7°	327.5	329.5	331.3	333.8	335.1	335.4	335.1	334.3	333.2	331.6	330.6
7.5°	326.6	328.6	330.6	333.3	334.8	335.1	334.8	333.8	332.7	331.1	329.9
8°	325.6	327.9	329.9	332.7	334.3	334.8	334.4	333.3	332.1	330.4	329.1
8.5°	324.6	326.9	329.2	332.1	333.8	334.3	334.0	332.9	331.6	329.8	328.3
9°	323.5	326.0	328.3	331.5	333.3	333.8	333.5	332.3	330.9	329.0	327.5
9.5°	322.5	325.0	327.5	330.7	332.9	333.2	333.0	331.6	330.2	328.2	326.6
10°	321.4	324.0	326.6	329.9	332.3	332.7	332.4	331.0	329.6	327.3	325.6
10.5°	320.1	322.9	325.7	329.2	331.6	332.1	331.8	330.3	328.8	326.5	324.7
11°	318.9	321.7	324.7	328.3	331.0	331.5	331.2	329.7	328.0	325.5	323.6
11.5°	317.6	320.6	323.6	327.4	330.3	330.8	330.5	328.8	327.2	324.5	322.5
12°	316.3	319.4	322.6	326.5	329.6	330.0	329.8	328.1	326.3	323.5	321.5
12.5°	315.0	318.2	321.5	325.4	328.8	329.3	329.0	327.2	325.3	322.5	320.3
13°	313.4	316.9	320.4	324.4	328.0	328.5	328.3	326.3	324.4	321.5	319.1
13.5°	312.0	315.6	319.1	323.3	327.1	327.6	327.4	325.3	323.3	320.3	318.0
14°	310.5	314.2	317.9	322.2	326.2	326.7	326.5	324.4	322.3	319.1	316.6
14.5°	308.9	312.8	316.6	321.1	325.1	325.8	325.5	323.3	321.2	317.9	315.3
15°	307.3	311.4	315.2	319.9	324.1	324.8	324.5	322.3	319.9	316.6	314.0
15.5°	305.7	309.9	313.8	318.5	323.0	323.7	323.4	321.2	318.8	315.3	312.6
16°	304.1	308.3	312.4	317.2	321.8	322.7	322.3	320.0	317.6	313.9	311.2
16.5°	302.4	306.7	310.9	315.9	320.6	321.6	321.2	318.8	316.3	312.6	309.8
17°	300.7	305.0	309.5	314.6	319.5	320.3	319.9	317.6	315.0	311.1	308.3
17.5°	298.9	303.4	307.9	313.1	318.2	319.0	318.7	316.3	313.6	309.7	306.7
18°	297.1	301.7	306.3	311.6	316.8	317.7	317.5	315.0	312.2	308.1	305.1
18.5°	295.2	300.0	304.7	310.1	315.5	316.4	316.1	313.5	310.7	306.6	303.4
19°	293.4	298.3	303.0	308.6	314.1	315.0	314.8	312.1	309.3	305.0	301.7
19.5°	291.6	296.6	301.4	306.9	312.6	313.6	313.3	310.7	307.7	303.3	300.0
20°	289.7	294.7	299.6	305.3	311.1	312.1	311.8	309.2	306.2	301.7	298.3
20.5°	287.8	292.9	297.9	303.6	309.6	310.6	310.4	307.7	304.6	300.0	296.6
21°	285.8	291.1	296.1	302.0	308.0	309.0	308.9	306.1	303.1	298.3	294.8
21.5°	283.7	289.2	294.3	300.2	306.4	307.4	307.3	304.6	301.4	296.6	293.0
22°	281.7	287.2	292.4	298.4	304.7	305.7	305.7	303.0	299.8	294.9	291.1



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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°	279.7	285.3	290.5	296.7	303.0	304.0	304.0	301.4	298.0	293.1	289.2
23°	277.7	283.4	288.6	294.9	301.2	302.3	302.4	299.7	296.3	291.3	287.1
23.5°	275.6	281.3	286.7	292.9	299.3	300.5	300.7	298.0	294.5	289.4	285.1
24°	273.4	279.3	284.7	291.0	297.5	298.6	299.0	296.3	292.7	287.4	283.2
24.5°	271.3	277.2	282.7	288.9	295.6	296.7	297.2	294.4	290.9	285.3	281.1
25°	269.0	275.1	280.6	286.8	293.5	294.8	295.3	292.5	289.0	283.4	278.9
25.5°	266.8	272.8	278.4	284.8	291.5	292.8	293.4	290.6	287.0	281.3	276.7
26°	264.4	270.5	276.3	282.6	289.3	290.7	291.5	288.7	285.0	279.2	274.4
26.5°	262.1	268.3	274.1	280.3	287.1	288.5	289.4	286.7	283.1	277.1	272.0
27°	259.8	266.0	271.9	278.1	285.0	286.4	287.3	284.8	281.0	275.0	269.8
27.5°	257.3	263.6	269.6	275.8	282.7	284.2	285.2	282.7	278.9	272.7	267.4
28°	254.9	261.3	267.2	273.4	280.3	281.8	283.1	280.6	276.7	270.4	265.0
28.5°	252.3	258.8	264.9	271.0	278.0	279.4	280.8	278.4	274.6	268.1	262.6
29°	249.9	256.4	262.3	268.5	275.5	276.9	278.5	276.3	272.3	265.8	260.0
29.5°	247.1	253.8	259.9	266.0	272.9	274.4	276.2	274.0	270.0	263.4	257.3
30°	244.5	251.3	257.3	263.4	270.3	271.8	273.8	271.7	267.7	260.9	254.7
30.5°	241.8	248.6	254.7	260.6	267.7	269.2	271.4	269.3	265.2	258.5	252.0
31°	239.1	246.0	251.9	257.9	265.0	266.5	268.8	266.9	262.9	255.9	249.3
31.5°	236.2	243.3	249.3	255.1	262.2	263.6	266.3	264.4	260.3	253.2	246.5
32°	233.4	240.5	246.5	252.1	259.3	260.7	263.5	261.8	257.8	250.5	243.6
32.5°	230.4	237.6	243.6	249.2	256.3	257.7	260.8	259.1	255.1	247.8	240.6
33°	227.4	234.7	240.6	246.0	253.2	254.7	257.9	256.4	252.4	244.9	237.5
33.5°	224.2	231.6	237.6	242.9	249.9	251.6	255.0	253.6	249.7	242.0	234.4
34°	221.2	228.5	234.5	239.6	246.6	248.4	251.9	250.7	246.8	239.1	231.2
34.5°	218.0	225.2	231.3	236.2	243.3	245.0	248.9	247.8	243.8	236.1	228.0
35°	214.6	221.9	228.0	232.7	239.9	241.5	245.7	244.7	240.9	232.9	224.7
35.5°	211.1	218.6	224.5	229.2	236.3	237.8	242.5	241.7	237.8	229.8	221.2
36°	207.4	215.1	221.0	225.5	232.6	234.1	239.1	238.5	234.6	226.5	217.7
36.5°	203.7	211.4	217.3	221.9	228.8	230.4	235.6	235.2	231.3	223.2	214.1
37°	200.0	207.6	213.6	217.9	225.0	226.6	232.0	231.8	227.9	219.7	210.4
37.5°	196.2	203.8	209.8	213.9	221.0	222.6	228.5	228.3	224.4	216.1	206.8
38°	192.1	199.9	205.8	209.9	217.0	218.6	224.8	224.8	220.8	212.5	203.0
38.5°	188.0	195.9	201.7	205.6	212.9	214.5	221.1	221.0	217.2	208.6	199.1
39°	183.8	191.8	197.5	201.5	208.6	210.2	217.1	217.2	213.6	204.8	195.3
39.5°	179.5	187.5	193.3	197.1	204.3	205.7	213.2	213.4	209.8	200.9	191.2
40°	175.1	183.3	188.9	192.7	199.8	201.3	209.0	209.5	205.8	197.0	187.1
40.5°	170.7	178.7	184.6	188.2	195.3	196.8	204.8	205.3	201.8	192.8	183.0
41°	166.3	174.2	180.1	183.6	190.6	192.2	200.4	201.2	197.6	188.6	178.7
41.5°	161.9	169.8	175.5	178.8	186.1	187.6	196.1	197.0	193.5	184.6	174.5
42°	157.3	165.3	170.9	174.2	181.5	182.8	191.7	192.7	189.2	180.3	170.4
42.5°	152.8	160.7	166.3	169.6	176.7	178.0	187.0	188.2	184.9	175.8	166.0
43°	148.4	156.1	161.7	164.9	171.9	173.1	182.4	183.7	180.5	171.5	161.7
43.5°	143.8	151.6	157.1	160.2	167.0	168.2	177.7	179.1	176.0	167.0	157.3
44°	139.4	147.1	152.3	155.4	162.1	163.3	172.9	174.5	171.5	162.5	152.9
44.5°	135.1	142.5	147.7	150.5	157.3	158.4	168.1	169.9	166.9	158.2	148.7



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
45°	130.8	138.0	143.3	145.9	152.4	153.6	163.2	165.3	162.2	153.7	144.4
45.5°	126.6	133.7	138.8	141.3	147.7	148.7	158.5	160.5	157.8	149.2	140.1
46°	122.4	129.4	134.2	136.8	143.0	143.8	153.6	155.7	153.3	144.7	135.9
46.5°	118.4	125.1	129.9	132.2	138.3	138.8	148.8	151.0	148.7	140.2	131.8
47°	114.3	120.9	125.5	127.7	133.6	134.1	143.8	146.4	144.1	135.8	127.5
47.5°	110.4	116.8	121.1	123.4	129.0	129.5	139.1	141.8	139.7	131.5	123.5
48°	106.7	112.7	117.1	118.9	124.5	124.9	134.4	137.1	135.2	127.2	119.5
48.5°	102.9	108.9	113.0	114.8	120.1	120.4	129.8	132.7	130.7	123.1	115.6
49°	99.2	105.2	109.1	110.6	115.7	115.9	125.2	128.3	126.4	118.9	111.7
49.5°	95.9	101.4	105.3	106.7	111.5	111.7	120.6	123.8	122.2	114.8	108.0
50°	92.4	97.9	101.5	102.7	107.3	107.4	116.2	119.3	117.9	110.7	104.3
50.5°	89.0	94.4	97.7	98.9	103.2	103.4	111.9	115.0	113.8	106.9	100.6
51°	85.8	91.0	94.1	95.3	99.3	99.3	107.6	110.8	109.6	103.1	97.2
51.5°	82.8	87.6	90.6	91.6	95.6	95.6	103.6	106.8	105.7	99.4	93.7
52°	79.9	84.4	87.3	88.1	91.9	91.9	99.4	102.7	101.8	95.8	90.4
52.5°	77.0	81.3	84.1	84.8	88.3	88.3	95.6	98.9	98.1	92.3	87.1
53°	74.0	78.3	80.9	81.6	85.0	84.8	91.9	95.1	94.5	88.9	83.9
53.5°	71.4	75.4	78.0	78.4	81.7	81.5	88.2	91.4	90.9	85.6	80.9
54°	68.8	72.6	74.9	75.4	78.5	78.3	84.7	87.7	87.4	82.3	78.0
54.5°	66.2	69.9	72.1	72.4	75.5	75.2	81.3	84.2	84.0	79.1	75.0
55°	63.8	67.3	69.3	69.6	72.4	72.2	78.0	80.9	80.7	76.2	72.3
55.5°	61.5	64.7	66.8	66.9	69.6	69.3	74.8	77.7	77.6	73.2	69.5
56°	59.1	62.3	64.0	64.3	67.0	66.8	71.8	74.5	74.5	70.5	67.0
56.5°	57.0	59.9	61.6	61.8	64.6	64.0	69.0	71.5	71.7	67.7	64.6
57°	54.8	57.6	59.2	59.4	62.0	61.5	66.2	68.6	68.9	65.3	62.1
57.5°	52.7	55.6	56.9	57.2	59.6	59.0	63.5	65.7	66.1	62.5	59.7
58°	50.7	53.4	54.7	55.0	57.3	56.8	60.8	63.1	63.4	60.1	57.3
58.5°	48.9	51.4	52.5	52.8	55.1	54.7	58.4	60.5	60.7	57.7	55.1
59°	47.2	49.4	50.6	50.7	53.1	52.5	56.0	58.0	58.3	55.5	53.1
59.5°	45.4	47.4	48.7	48.6	51.0	50.6	53.7	55.6	55.8	53.3	51.0
60°	43.7	45.7	46.7	46.8	49.0	48.7	51.6	53.3	53.6	51.1	49.0
60.5°	42.1	44.0	44.8	45.0	47.2	46.7	49.6	50.8	51.4	49.0	47.1
61°	40.5	42.3	43.0	43.3	45.4	44.9	47.4	48.9	49.2	47.1	45.2
61.5°	38.8	40.7	41.3	41.7	43.7	43.2	45.5	46.7	47.1	45.1	43.5
62°	37.3	39.0	39.8	40.0	42.1	41.5	43.7	44.7	45.1	43.2	41.8
62.5°	35.9	37.4	38.2	38.4	40.4	40.1	41.9	42.8	43.3	41.5	40.2
63°	34.7	35.9	36.7	36.9	38.9	38.5	40.2	41.1	41.5	39.9	38.5
63.5°	33.3	34.7	35.3	35.5	37.4	37.1	38.5	39.2	39.8	38.3	37.0
64°	32.1	33.4	33.8	34.1	36.1	35.6	37.0	37.5	38.0	36.7	35.7
64.5°	30.8	32.0	32.4	32.7	34.8	34.1	35.5	35.9	36.4	35.2	34.2
65°	29.7	30.7	31.1	31.6	33.4	32.8	34.1	34.4	35.0	33.7	32.9
65.5°	28.7	29.5	29.8	30.3	32.2	31.7	32.6	32.9	33.4	32.2	31.7
66°	27.5	28.5	28.7	29.1	31.0	30.5	31.4	31.6	31.9	30.9	30.4
66.5°	26.7	27.4	27.7	28.0	29.8	29.3	30.1	30.3	30.5	29.6	29.2
67°	25.5	26.3	26.8	26.9	28.7	28.3	28.9	29.0	29.2	28.6	28.3



TEST NUMBER: P522094

CATALOG NUMBER: RLLV4069BLE40AWHDM-3000K-UNIT

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
67.5°	24.6	25.3	25.4	25.9	27.7	27.2	27.7	27.9	27.9	27.3	27.0
68°	23.8	24.4	24.5	24.9	26.8	26.1	26.8	26.7	26.9	26.1	26.1
68.5°	22.8	23.5	23.6	23.9	25.6	25.2	25.5	25.5	25.6	25.0	25.1
69°	22.1	22.4	22.5	23.0	24.7	24.1	24.7	24.5	24.6	24.0	24.1
69.5°	21.2	21.8	21.7	22.1	23.7	23.5	23.6	23.6	23.6	23.2	23.3
70°	20.5	20.8	20.8	21.3	22.9	22.4	22.6	22.4	22.4	22.2	22.3
70.5°	19.6	20.2	20.1	20.4	22.1	21.7	21.9	21.6	21.6	21.2	21.4
71°	18.8	19.2	19.2	19.7	21.3	20.8	20.9	20.6	20.6	20.4	20.7
71.5°	18.1	18.6	18.7	19.0	20.6	20.2	20.2	19.9	19.8	19.6	20.1
72°	17.5	17.8	17.8	18.5	20.0	19.3	19.2	19.0	18.9	18.8	19.1
72.5°	17.0	17.1	17.1	17.6	19.2	18.7	18.6	18.4	18.3	18.0	18.6
73°	16.1	16.5	16.4	17.0	18.6	18.0	17.7	17.6	17.5	17.3	17.8
73.5°	15.6	15.8	15.8	16.2	17.9	17.3	17.1	17.0	16.9	16.7	17.1
74°	15.2	15.3	15.4	15.8	17.2	16.7	16.3	16.2	16.1	16.0	16.4
74.5°	14.7	14.7	14.7	15.3	16.9	16.1	15.8	15.6	15.4	15.5	15.9
75°	13.9	14.4	14.1	14.7	16.1	15.5	15.3	15.2	15.1	14.8	15.3
75.5°	13.3	13.7	13.8	14.1	15.4	14.9	14.5	14.5	14.5	14.3	14.7
76°	12.9	13.2	13.4	13.7	15.1	14.4	13.9	13.9	13.8	13.9	14.4
76.5°	12.2	12.6	12.6	13.3	14.4	13.9	13.6	13.5	13.3	13.5	13.7
77°	11.6	12.0	12.0	12.5	13.8	13.4	13.0	13.0	12.8	12.7	13.4
77.5°	11.0	11.5	11.6	11.9	13.3	12.7	12.3	12.4	12.2	12.1	12.5
78°	10.5	11.0	10.9	11.4	12.7	12.1	11.9	12.0	11.8	11.6	11.9
78.5°	10.1	10.4	10.5	10.7	12.0	11.6	11.5	11.5	11.3	11.0	11.5
79°	9.1	9.8	9.8	10.4	11.5	10.9	10.9	10.8	10.7	10.6	10.7
79.5°	8.8	9.1	9.1	9.6	10.9	10.5	10.4	10.5	10.3	10.0	10.3
80°	8.1	8.8	8.8	8.9	10.4	10.0	9.8	9.9	9.6	9.2	9.5
80.5°	7.4	8.1	8.0	8.5	9.8	9.3	9.2	9.1	9.0	8.9	8.8
81°	7.1	7.3	7.3	7.8	9.0	8.8	8.8	8.8	8.7	8.2	8.2
81.5°	6.3	7.0	7.1	7.1	8.7	8.3	8.2	8.2	7.9	7.5	7.6
82°	5.7	6.1	6.3	6.5	7.8	7.5	7.7	7.5	7.2	7.1	7.2
82.5°	5.3	5.6	5.7	5.9	7.2	7.2	7.1	7.2	6.9	6.3	6.4
83°	4.6	5.3	5.3	5.4	6.7	6.4	6.4	6.4	6.1	5.7	5.6
83.5°	4.0	4.5	4.6	4.8	5.9	5.8	5.8	5.7	5.5	5.4	5.4
84°	3.8	3.9	4.0	4.4	5.5	5.5	5.5	5.4	5.2	4.6	4.6
84.5°	3.0	3.6	3.8	3.8	4.8	4.8	4.8	4.7	4.5	4.0	3.9
85°	2.4	2.8	3.0	3.1	4.4	4.2	4.4	4.1	3.9	3.8	3.6
85.5°	2.2	2.2	2.4	2.7	3.8	3.8	3.8	3.8	3.6	3.0	2.8
86°	1.7	2.1	2.2	2.2	3.2	3.1	3.1	3.0	2.8	2.4	2.3
86.5°	1.5	1.4	1.6	2.0	2.7	2.7	2.6	2.4	2.3	2.2	2.1
87°	0.6	0.8	1.3	1.2	2.2	2.2	2.2	2.2	2.1	1.7	1.3
87.5°	0.5	0.5	0.6	0.7	2.0	2.0	1.9	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	0.7	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: P522094

CATALOG NUMBER: RLLV4069BLE40AWHDM-3000K-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: P522094

CATALOG NUMBER: RLLV4069BLE40AWHDM-3000K-UNIT

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
0°	335.5	335.5	335.5	335.5	335.5	335.5
0.5°	336.3	334.9	334.9	334.9	334.9	335.1
1°	336.1	334.7	334.6	334.5	334.6	334.9
1.5°	335.8	334.2	334.1	334.0	334.2	334.5
2°	335.4	333.7	333.5	333.5	333.7	334.1
2.5°	335.1	333.2	333.1	333.0	333.2	333.6
3°	334.7	332.7	332.5	332.3	332.7	333.2
3.5°	334.2	332.0	331.8	331.6	332.0	332.6
4°	333.7	331.4	331.1	331.0	331.4	332.0
4.5°	333.2	330.6	330.4	330.1	330.7	331.4
5°	332.6	329.9	329.6	329.4	329.9	330.7
5.5°	331.9	329.0	328.7	328.5	329.1	330.0
6°	331.2	328.2	327.9	327.6	328.3	329.3
6.5°	330.5	327.2	326.9	326.6	327.4	328.4
7°	329.7	326.3	326.0	325.6	326.5	327.5
7.5°	328.9	325.2	324.9	324.6	325.3	326.6
8°	328.1	324.2	323.8	323.5	324.3	325.6
8.5°	327.1	323.2	322.7	322.4	323.2	324.6
9°	326.2	322.1	321.5	321.3	322.0	323.5
9.5°	325.1	321.0	320.3	320.0	320.9	322.5
10°	324.1	319.8	319.1	318.8	319.7	321.4
10.5°	323.1	318.5	317.8	317.4	318.4	320.1
11°	321.9	317.3	316.5	316.1	317.1	318.9
11.5°	320.8	316.0	315.1	314.7	315.9	317.6
12°	319.7	314.6	313.7	313.3	314.5	316.3
12.5°	318.3	313.3	312.3	311.8	313.0	315.0
13°	317.1	311.8	310.9	310.2	311.6	313.4
13.5°	315.8	310.3	309.4	308.7	310.1	312.0
14°	314.4	308.8	307.8	307.0	308.5	310.5
14.5°	313.0	307.3	306.2	305.4	306.9	308.9
15°	311.5	305.7	304.6	303.7	305.3	307.3
15.5°	310.0	304.0	302.9	302.0	303.6	305.7
16°	308.5	302.4	301.2	300.3	301.8	304.1
16.5°	306.9	300.7	299.4	298.5	300.1	302.4
17°	305.3	298.9	297.6	296.7	298.3	300.7
17.5°	303.6	297.1	295.9	294.9	296.6	298.9
18°	301.9	295.3	294.0	293.0	294.8	297.1
18.5°	300.2	293.4	292.1	291.0	292.9	295.2
19°	298.4	291.7	290.2	289.1	291.0	293.4
19.5°	296.7	289.8	288.3	287.1	289.0	291.6
20°	294.9	287.9	286.3	285.1	287.0	289.7
20.5°	293.1	285.9	284.4	283.2	285.1	287.8
21°	291.1	283.9	282.4	281.2	283.2	285.8
21.5°	289.2	281.8	280.3	279.1	281.1	283.7
22°	287.2	279.9	278.3	276.9	279.1	281.7



TEST NUMBER: P522094

CATALOG NUMBER: RLLV4069BLE40AWHDM-3000K-UNIT

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
22.5°	285.1	277.8	276.2	274.9	276.9	279.7
23°	283.3	275.7	273.9	272.8	274.8	277.7
23.5°	281.1	273.5	271.7	270.5	272.6	275.6
24°	279.0	271.3	269.6	268.3	270.4	273.4
24.5°	276.8	269.0	267.3	266.0	268.2	271.3
25°	274.6	266.8	265.1	263.6	265.9	269.0
25.5°	272.2	264.3	262.8	261.3	263.5	266.8
26°	270.0	261.9	260.3	258.8	261.2	264.4
26.5°	267.7	259.5	257.9	256.5	258.8	262.1
27°	265.2	257.1	255.4	254.0	256.4	259.8
27.5°	262.8	254.6	253.0	251.6	253.9	257.3
28°	260.2	251.9	250.5	248.9	251.5	254.9
28.5°	257.7	249.3	247.9	246.3	248.9	252.3
29°	255.1	246.7	245.2	243.6	246.3	249.9
29.5°	252.3	243.8	242.6	241.0	243.6	247.1
30°	249.7	241.1	240.0	238.3	240.9	244.5
30.5°	246.8	238.3	237.1	235.5	238.2	241.8
31°	243.9	235.2	234.4	232.7	235.4	239.1
31.5°	241.0	232.3	231.5	229.8	232.6	236.2
32°	238.0	229.2	228.5	226.9	229.8	233.4
32.5°	234.9	226.1	225.5	223.9	226.8	230.4
33°	231.7	222.8	222.4	220.8	223.7	227.4
33.5°	228.5	219.5	219.2	217.7	220.6	224.2
34°	225.2	216.1	215.9	214.6	217.4	221.2
34.5°	221.7	212.5	212.6	211.3	214.2	218.0
35°	218.2	208.8	209.2	207.9	210.9	214.6
35.5°	214.6	205.2	205.6	204.4	207.4	211.1
36°	210.8	201.3	202.0	200.7	203.9	207.4
36.5°	207.0	197.4	198.4	197.0	200.3	203.7
37°	203.2	193.4	194.5	193.3	196.5	200.0
37.5°	199.3	189.3	190.5	189.4	192.5	196.2
38°	195.3	185.2	186.6	185.3	188.6	192.1
38.5°	191.2	180.9	182.6	181.2	184.4	188.0
39°	187.0	176.6	178.5	177.0	180.3	183.8
39.5°	183.0	172.2	174.1	172.6	176.1	179.5
40°	178.7	167.8	169.8	168.3	171.8	175.1
40.5°	174.5	163.5	165.4	163.9	167.3	170.7
41°	170.3	159.1	160.8	159.7	162.9	166.3
41.5°	165.9	154.7	156.4	155.3	158.5	161.9
42°	161.5	150.4	152.1	150.9	154.1	157.3
42.5°	157.1	145.8	147.6	146.5	149.8	152.8
43°	152.7	141.4	143.2	142.1	145.4	148.4
43.5°	148.4	137.1	138.8	137.7	141.0	143.8
44°	144.0	132.8	134.4	133.5	136.6	139.4
44.5°	139.8	128.6	130.2	129.1	132.3	135.1



TEST NUMBER: P522094

CATALOG NUMBER: RLLV4069BLE40AWHDM-3000K-UNIT

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
45°	135.5	124.5	125.8	125.0	128.0	130.8
45.5°	131.4	120.4	121.8	120.8	123.8	126.6
46°	127.1	116.5	117.7	116.9	119.7	122.4
46.5°	123.0	112.4	113.9	112.8	115.7	118.4
47°	118.9	108.6	109.9	108.9	111.8	114.3
47.5°	115.2	105.0	106.2	105.2	107.9	110.4
48°	111.3	101.3	102.5	101.6	104.2	106.7
48.5°	107.5	97.9	98.9	98.1	100.6	102.9
49°	103.9	94.5	95.5	94.7	97.2	99.2
49.5°	100.4	91.1	92.1	91.4	93.8	95.9
50°	96.9	87.9	88.9	88.2	90.6	92.4
50.5°	93.5	84.8	85.6	84.9	87.3	89.0
51°	90.2	81.8	82.6	81.9	84.0	85.8
51.5°	87.0	78.9	79.6	78.9	81.0	82.8
52°	83.9	76.0	76.6	76.1	78.0	79.9
52.5°	80.9	73.3	74.0	73.4	75.2	77.0
53°	77.9	70.6	71.2	70.7	72.5	74.0
53.5°	75.1	68.1	68.7	68.2	69.9	71.4
54°	72.3	65.7	66.2	65.7	67.3	68.8
54.5°	69.7	63.2	63.8	63.4	64.9	66.2
55°	67.2	60.8	61.4	61.0	62.4	63.8
55.5°	64.8	58.8	59.0	58.8	60.1	61.5
56°	62.3	56.6	57.0	56.7	58.0	59.1
56.5°	60.0	54.6	55.0	54.6	55.8	57.0
57°	57.8	52.5	53.1	52.5	54.0	54.8
57.5°	55.7	50.7	51.2	50.7	51.8	52.7
58°	53.7	48.8	49.2	48.8	50.0	50.7
58.5°	51.7	47.1	47.4	47.1	48.2	48.9
59°	49.7	45.4	45.7	45.5	46.3	47.2
59.5°	47.9	43.8	44.0	43.8	44.6	45.4
60°	46.0	42.2	42.5	42.2	43.0	43.7
60.5°	44.4	40.7	40.9	40.7	41.6	42.1
61°	42.7	39.1	39.6	39.1	40.1	40.5
61.5°	41.2	37.8	38.2	37.8	38.4	38.8
62°	39.6	36.5	36.8	36.5	37.0	37.3
62.5°	38.3	35.3	35.4	35.2	35.6	35.9
63°	36.9	33.9	34.2	33.8	34.3	34.7
63.5°	35.6	32.6	33.0	32.6	33.2	33.3
64°	34.1	31.6	31.9	31.5	31.9	32.1
64.5°	32.8	30.5	30.7	30.5	30.7	30.8
65°	31.6	29.4	29.8	29.4	29.6	29.7
65.5°	30.5	28.6	28.7	28.4	28.6	28.7
66°	29.4	27.4	27.7	27.4	27.6	27.5
66.5°	28.6	26.8	26.9	26.6	26.7	26.7
67°	27.4	25.6	25.8	25.5	25.6	25.5



TEST NUMBER: P522094

CATALOG NUMBER: RLLV4069BLE40AWHDM-3000K-UNIT

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
67.5°	26.5	24.9	25.0	24.8	24.8	24.6
68°	25.4	23.9	24.1	23.8	23.8	23.8
68.5°	24.7	23.2	23.5	23.0	23.0	22.8
69°	23.8	22.3	22.5	22.2	22.1	22.1
69.5°	22.9	21.7	22.0	21.5	21.4	21.2
70°	22.2	20.8	21.1	20.7	20.7	20.5
70.5°	21.5	20.4	20.4	20.2	20.1	19.6
71°	20.6	19.5	19.6	19.3	19.2	18.8
71.5°	19.9	18.9	19.0	18.8	18.6	18.1
72°	19.1	18.2	18.6	18.0	17.9	17.5
72.5°	18.7	17.7	17.8	17.3	17.2	17.0
73°	17.9	17.1	17.1	16.9	16.8	16.1
73.5°	17.3	16.4	16.5	16.2	16.0	15.6
74°	17.0	16.0	15.9	15.6	15.4	15.2
74.5°	16.1	15.5	15.3	15.1	15.0	14.7
75°	15.6	14.9	14.8	14.6	14.4	13.9
75.5°	15.3	14.4	14.5	13.9	13.8	13.3
76°	14.6	13.8	13.8	13.4	13.2	12.9
76.5°	13.9	13.1	13.2	12.8	12.6	12.2
77°	13.3	12.4	12.4	12.1	11.9	11.6
77.5°	12.8	11.7	11.8	11.5	11.4	11.0
78°	12.1	11.1	11.2	10.8	10.8	10.5
78.5°	11.6	10.5	10.5	10.4	10.3	10.1
79°	10.8	9.8	9.8	9.5	9.4	9.1
79.5°	10.3	9.0	9.1	8.9	8.8	8.8
80°	9.5	8.6	8.7	8.3	8.2	8.1
80.5°	8.9	7.9	7.9	7.5	7.6	7.4
81°	8.4	7.2	7.1	7.2	7.1	7.1
81.5°	7.5	6.7	6.5	6.3	6.4	6.3
82°	7.2	5.8	5.8	5.6	5.6	5.7
82.5°	6.3	5.5	5.4	4.9	5.3	5.3
83°	5.6	4.6	4.6	4.4	4.5	4.6
83.5°	5.1	3.9	3.9	3.8	3.9	4.0
84°	4.5	3.6	3.6	3.1	3.6	3.8
84.5°	3.9	2.8	2.8	2.6	2.8	3.0
85°	3.2	2.3	2.2	2.2	2.2	2.4
85.5°	2.7	2.0	2.0	1.6	2.1	2.2
86°	2.2	1.3	1.3	1.3	1.4	1.7
86.5°	1.6	0.8	0.8	0.7	0.9	1.5
87°	1.2	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: P522094

CATALOG NUMBER: RLLV4069BLE40AWHDM-3000K-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)