

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: NEO-RAY

Report Number: P331307-930

Luminaire Tested: **SA2XXDIP-C485D725U930-4F0-1E-UDD-D1**

Issue Date: 10/7/2019

Test Information

Test Method: LM-79-08
Report Number: P331307-930
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-8,
Test Lab: INNOVATION CENTER
Issue Date: 10/7/2019
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: SA2XXDIP-C485D725U930-4F0-1E-UDD-D1
Description: DEFINE 2 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 485 LUMENS PER FOOT, DROP SATIN WHITE DIFFUSER
UPLIGHT 725 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3717.5 lumens
Efficiency: N/A
Efficacy: 96.8 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.32 / 1.42
Luminous Opening: Rectangular w/ Sides (W: 0.17' x L: 4' x H: 0.08')
CIE Type: Semi-Indirect

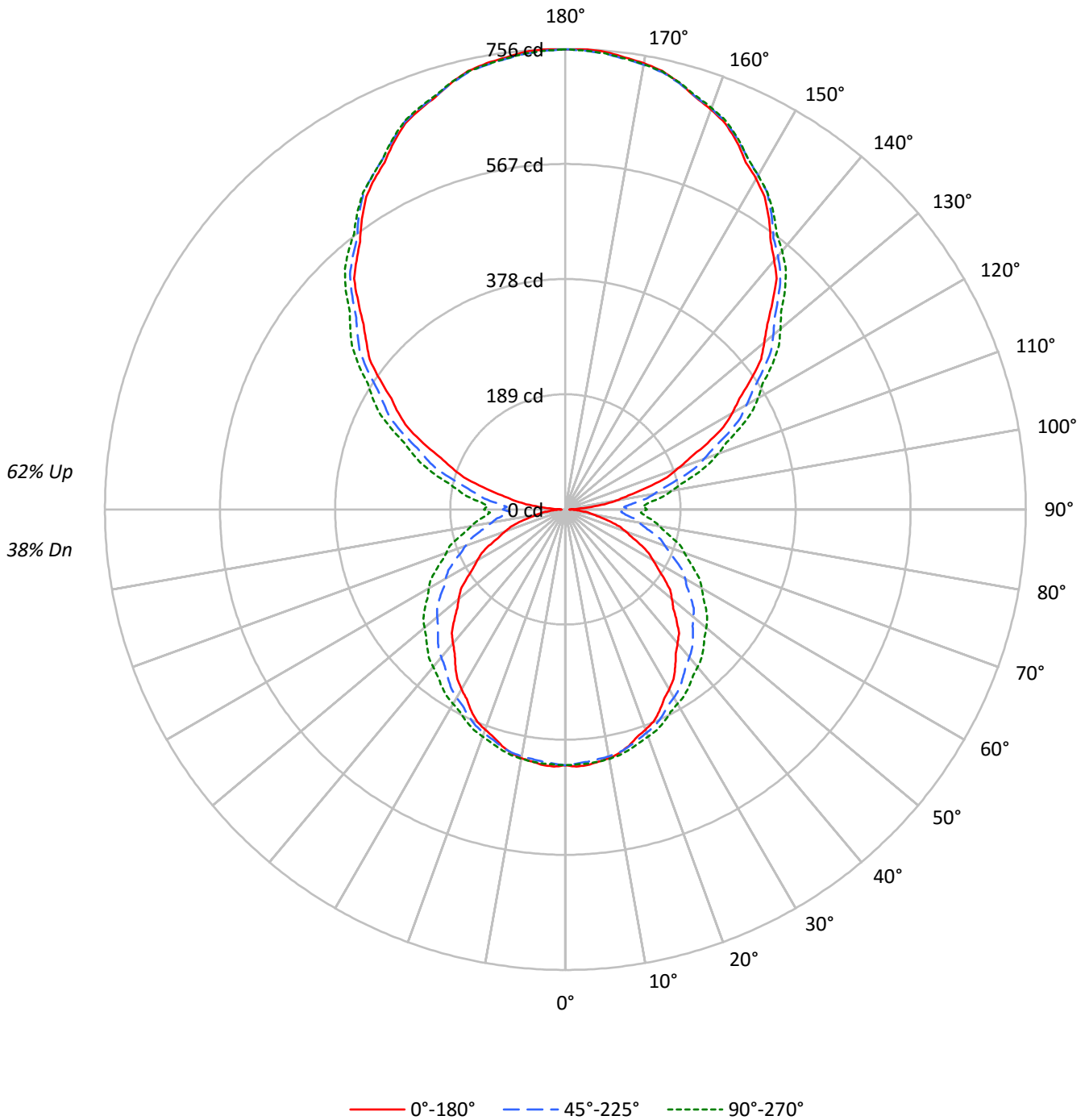
Input Watts (W): 38.4
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P331307-930

CATALOG NUMBER: SA2XXDIP-C485D725U930-4F0-1E-UDD-D1

Luminous Intensity Polar Plot





TEST NUMBER: P331307-930

CATALOG NUMBER: SA2XXDIP-C485D725U930-4F0-1E-UDD-D1

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	0
RCR																		
0	104	104	104	104	95	95	95	95	77	77	77	61	61	61	45	45	45	38
1	94	89	85	81	85	81	77	74	66	63	61	51	50	48	38	37	36	30
2	85	77	71	65	77	70	65	60	57	53	49	44	42	39	33	31	29	24
3	77	67	60	54	70	61	55	49	50	45	41	39	35	33	29	27	25	20
4	71	59	51	45	64	54	47	41	44	39	34	34	31	28	26	23	21	17
5	65	53	44	38	58	48	41	35	39	34	29	31	27	24	23	20	18	14
6	59	47	39	33	53	43	36	30	35	29	25	28	24	20	21	18	16	12
7	55	42	34	29	49	39	32	26	32	26	22	25	21	18	19	16	14	11
8	51	38	30	25	46	35	28	23	29	23	20	23	19	16	17	14	12	10
9	47	35	27	22	43	32	25	21	26	21	17	21	17	14	16	13	11	9
10	44	32	25	20	40	29	23	18	24	19	16	19	15	13	15	12	10	8

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	6783	6783	6783
5°	6816	6530	6505
10°	6774	6337	6266
15°	6681	6133	6014
20°	6562	5913	5771
25°	6445	5701	5552
30°	6282	5486	5330
35°	6116	5276	5174
40°	5941	5099	5017
45°	5775	4940	4885
50°	5598	4794	4753
55°	5410	4638	4620
60°	5180	4477	4479
65°	4944	4290	4310
70°	4679	4085	4131
75°	4335	3888	3964
80°	3800	3685	3794
85°	3277	3510	3661



TEST NUMBER: P331307-930

CATALOG NUMBER: SA2XXDIP-C485D725U930-4F0-1E-UDD-D1

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	39.8	1.1
10°-20°	114.2	3.1
20°-30°	173.0	4.7
30°-40°	210.7	5.7
40°-50°	226.7	6.1
50°-60°	220.1	5.9
60°-70°	192.2	5.2
70°-80°	148.0	4.0
80°-90°	102.3	2.8
90°-100°	116.3	3.1
100°-110°	198.6	5.3
110°-120°	287.0	7.7
120°-130°	352.5	9.5
130°-140°	382.7	10.3
140°-150°	369.0	9.9
150°-160°	308.4	8.3
160°-170°	204.5	5.5
170°-180°	71.5	1.9
0°-30°	327.0	8.8
0°-40°	537.7	14.5
0°-60°	984.5	26.5
0°-90°	1427.0	38.4
90°-120°	601.9	16.2
90°-150°	1706.1	45.9
90°-180°	2290.0	61.6
0°-180°	3717.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	420	420	420	420	420	
5°	421	419	416	419	419	40
15°	402	403	403	408	408	113
25°	365	370	375	382	384	168
35°	315	325	337	350	354	197
45°	258	275	296	314	321	199
55°	198	220	251	273	281	177
65°	135	165	201	225	234	134
75°	75	109	148	173	182	79
85°	22	60	99	123	133	24
90°	7	50	103	125	134	6
95°	38	73	111	133	140	42
105°	140	160	193	214	222	148
115°	257	269	294	311	316	254
125°	372	378	395	409	415	333
135°	480	488	495	506	510	371
145°	582	587	591	595	596	364
155°	666	668	670	673	671	306
165°	725	724	724	728	725	204
175°	754	752	751	755	751	72
180°	755	755	755	755	755	



TEST NUMBER: P331307-930

CATALOG NUMBER: SA2XXDIP-C485D725U930-4F0-1E-UDD-D1

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	420.1	420.1	420.1	420.1	420.1	420.1	420.1	420.1	420.1	420.1	420.1
2.5°	422.6	422.2	421.9	421.6	421.3	420.7	420.0	419.2	418.5	417.7	418.2
5°	421.3	420.9	420.5	420.1	419.7	419.1	418.3	417.5	416.7	415.9	416.7
7.5°	417.6	417.3	417.0	416.8	416.5	416.0	415.4	414.8	414.2	413.5	414.5
10°	414.7	414.4	414.1	413.8	413.6	413.3	412.9	412.5	412.1	411.6	412.7
12.5°	409.8	409.9	409.9	409.9	410.0	409.9	409.6	409.3	409.0	408.7	409.8
15°	401.9	402.1	402.4	402.7	402.9	403.1	403.1	403.1	403.1	403.1	404.3
17.5°	391.7	392.2	392.8	393.4	394.0	394.4	394.8	395.3	395.7	396.2	397.4
20°	384.8	385.5	386.2	386.9	387.5	388.2	388.7	389.2	389.8	390.3	391.8
22.5°	377.5	378.3	379.1	379.8	380.7	381.4	382.2	382.9	383.7	384.5	386.0
25°	365.3	366.3	367.2	368.2	369.1	370.2	371.5	372.7	373.9	375.0	376.7
27.5°	350.7	352.3	353.8	355.4	356.9	358.4	359.8	361.3	362.6	364.1	366.2
30°	341.0	342.8	344.5	346.3	348.1	349.8	351.6	353.3	355.1	356.8	359.0
32.5°	330.3	332.2	334.2	336.2	338.2	340.2	342.3	344.4	346.4	348.5	351.0
35°	314.8	317.1	319.4	321.7	324.0	326.4	329.0	331.6	334.1	336.7	339.7
37.5°	298.0	300.7	303.3	306.0	308.6	311.6	315.0	318.2	321.6	324.9	328.2
40°	286.8	289.8	292.8	295.7	298.7	302.0	305.7	309.3	313.0	316.7	320.2
42.5°	276.1	279.1	282.0	285.0	288.0	291.6	295.8	299.9	304.2	308.3	312.2
45°	258.2	261.8	265.5	269.1	272.8	277.0	281.7	286.4	291.2	296.0	300.1
47.5°	240.5	244.5	248.5	252.4	256.4	261.2	266.8	272.3	277.9	283.4	287.8
50°	228.4	232.5	236.8	240.9	245.1	250.2	256.3	262.4	268.6	274.6	279.2
52.5°	216.6	221.0	225.4	229.9	234.3	239.7	246.1	252.5	258.9	265.4	270.0
55°	197.9	202.8	207.7	212.5	217.4	223.3	230.4	237.4	244.4	251.4	256.3
57.5°	179.4	184.9	190.4	195.8	201.4	207.7	214.8	222.0	229.2	236.4	241.7
60°	166.2	172.0	177.9	183.7	189.5	196.2	204.0	211.7	219.4	227.1	232.3
62.5°	154.5	160.5	166.6	172.7	178.7	185.6	193.2	201.0	208.7	216.4	221.8
65°	135.2	141.8	148.5	155.1	161.7	169.0	177.0	185.0	193.0	201.0	206.5
67.5°	117.4	124.3	131.3	138.2	145.1	152.6	160.9	169.0	177.2	185.3	190.9
70°	104.8	111.8	118.8	125.8	132.9	140.6	149.0	157.4	165.8	174.1	179.9
72.5°	93.0	100.3	107.5	114.8	122.1	130.0	138.4	146.9	155.4	163.9	169.7
75°	74.9	82.5	90.0	97.6	105.2	113.3	122.0	130.6	139.3	148.0	153.8
77.5°	57.4	65.3	73.2	81.1	89.1	97.4	106.2	115.0	123.8	132.6	138.4
80°	45.7	53.9	62.2	70.4	78.7	87.2	96.0	104.8	113.6	122.4	128.1
82.5°	36.0	44.1	52.2	60.3	68.5	77.0	85.9	94.8	103.7	112.7	118.3
85°	21.9	30.3	38.7	47.1	55.4	64.0	72.6	81.3	90.0	98.7	104.4
87.5°	12.1	20.5	28.9	37.3	45.7	54.5	63.8	73.1	82.3	91.6	97.1
90°	6.7	16.3	25.8	35.4	44.9	55.6	67.3	79.2	90.9	102.6	107.8
92.5°	17.0	25.5	34.1	42.6	51.1	60.0	69.1	78.1	87.2	96.3	101.6
95°	38.0	45.8	53.6	61.3	69.1	77.2	85.6	94.0	102.4	110.8	115.9
97.5°	64.8	71.7	78.6	85.5	92.4	100.0	108.4	116.7	125.0	133.4	138.4
100°	85.2	91.3	97.5	103.6	109.7	116.8	124.8	132.8	140.8	148.8	153.8
102.5°	106.2	111.6	117.1	122.5	128.0	134.8	142.6	150.5	158.4	166.3	171.4
105°	140.1	144.4	148.8	153.1	157.4	163.3	170.6	177.9	185.2	192.6	197.5
107.5°	174.9	178.6	182.4	186.1	189.9	195.2	201.9	208.6	215.4	222.1	226.7
110°	196.8	200.3	203.9	207.5	211.0	216.1	222.7	229.3	236.0	242.6	247.0



TEST NUMBER: P331307-930

CATALOG NUMBER: SA2XXDIP-C485D725U930-4F0-1E-UDD-D1

CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	221.3	224.4	227.6	230.6	233.7	238.4	244.6	250.8	257.0	263.2	267.2
115°	257.3	259.7	262.0	264.3	266.7	270.8	276.5	282.4	288.2	294.0	297.9
117.5°	292.7	294.8	296.9	299.0	301.1	304.6	309.4	314.2	319.1	323.9	327.6
120°	316.7	318.3	320.0	321.6	323.3	326.3	330.6	334.8	339.2	343.4	347.2
122.5°	338.6	340.1	341.7	343.3	344.9	347.8	352.1	356.4	360.7	365.0	368.4
125°	372.1	373.4	374.6	375.9	377.2	379.8	383.7	387.6	391.5	395.4	398.7
127.5°	405.4	406.8	408.3	409.9	411.3	413.5	416.5	419.5	422.5	425.4	428.3
130°	426.2	428.0	429.7	431.4	433.1	435.2	437.8	440.3	442.9	445.5	448.4
132.5°	449.7	451.1	452.5	453.8	455.2	457.0	459.3	461.5	463.7	466.0	468.5
135°	480.5	482.0	483.6	485.2	486.7	488.3	489.9	491.5	493.2	494.9	497.6
137.5°	513.5	514.7	516.0	517.2	518.4	519.6	520.6	521.5	522.4	523.4	525.8
140°	533.4	534.5	535.7	536.8	537.9	539.0	540.0	541.0	541.9	542.9	545.0
142.5°	553.8	554.9	556.0	557.2	558.3	559.1	559.7	560.2	560.8	561.3	563.1
145°	582.4	583.4	584.5	585.5	586.4	587.3	588.2	589.1	589.9	590.8	591.7
147.5°	608.6	609.8	611.0	612.1	613.3	614.2	614.8	615.4	616.0	616.5	616.9
150°	626.5	627.3	628.1	629.0	629.8	630.6	631.1	631.7	632.3	632.8	633.2
152.5°	642.2	643.1	643.9	644.8	645.6	646.4	647.1	647.8	648.4	649.1	649.6
155°	665.9	666.3	666.8	667.2	667.6	668.1	668.5	669.0	669.4	669.8	670.5
157.5°	686.2	686.5	686.8	687.1	687.4	687.6	687.9	688.1	688.4	688.6	689.6
160°	698.5	698.7	699.0	699.3	699.6	699.8	699.9	700.1	700.3	700.3	701.2
162.5°	709.6	709.7	709.8	709.8	709.9	710.0	710.1	710.3	710.5	710.5	711.5
165°	724.6	724.5	724.3	724.1	724.0	723.9	723.9	723.9	723.9	723.9	725.0
167.5°	737.0	736.6	736.2	735.8	735.4	735.2	735.2	735.1	735.1	735.0	736.1
170°	743.7	743.3	742.8	742.4	742.0	741.7	741.6	741.4	741.3	741.1	742.2
172.5°	748.3	747.9	747.5	747.0	746.6	746.3	746.2	746.0	745.9	745.8	746.7
175°	753.9	753.5	753.0	752.6	752.2	751.9	751.5	751.3	751.0	750.7	751.7
177.5°	756.2	755.9	755.5	755.1	754.8	754.6	754.3	754.1	753.8	753.7	754.3
180°	755.1	755.1	755.1	755.1	755.1	755.1	755.1	755.1	755.1	755.1	755.1



TEST NUMBER: P331307-930

CATALOG NUMBER: SA2XXDIP-C485D725U930-4F0-1E-UDD-D1

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	420.1	420.1	420.1	420.1	420.1	420.1	420.1	420.1
2.5°	418.8	419.3	419.9	420.0	419.8	419.6	419.4	419.1
5°	417.5	418.3	419.1	419.5	419.3	419.2	419.1	418.9
7.5°	415.5	416.5	417.4	417.8	417.8	417.6	417.4	417.4
10°	413.8	414.8	416.0	416.5	416.3	416.1	416.0	415.9
12.5°	410.8	412.0	413.0	413.5	413.4	413.2	413.1	412.9
15°	405.5	406.8	408.0	408.5	408.4	408.2	408.1	408.0
17.5°	398.7	400.0	401.2	401.9	401.9	401.9	401.9	401.9
20°	393.3	394.8	396.2	397.0	397.0	397.0	397.0	397.0
22.5°	387.4	388.9	390.4	391.3	391.5	391.7	391.9	392.2
25°	378.3	379.9	381.6	382.6	383.0	383.4	383.8	384.3
27.5°	368.3	370.3	372.3	373.5	373.8	374.1	374.4	374.7
30°	361.2	363.3	365.5	366.7	367.1	367.5	367.9	368.4
32.5°	353.5	356.0	358.5	360.1	360.9	361.6	362.3	363.1
35°	342.7	345.7	348.6	350.6	351.6	352.5	353.4	354.4
37.5°	331.5	334.8	338.1	340.2	341.3	342.3	343.2	344.3
40°	323.7	327.2	330.7	333.0	334.3	335.5	336.7	337.9
42.5°	316.0	319.8	323.7	326.3	327.4	328.6	329.9	331.1
45°	304.4	308.5	312.7	315.4	316.8	318.2	319.5	320.9
47.5°	292.1	296.5	300.9	303.9	305.3	306.8	308.3	309.8
50°	283.8	288.4	293.0	296.0	297.6	299.1	300.5	302.0
52.5°	274.8	279.5	284.2	287.3	288.9	290.6	292.1	293.8
55°	261.2	266.1	270.9	274.3	276.1	277.8	279.6	281.3
57.5°	246.9	252.1	257.4	260.9	262.7	264.5	266.3	268.1
60°	237.4	242.6	247.7	251.2	253.1	255.0	256.9	258.8
62.5°	227.3	232.8	238.2	241.9	243.7	245.5	247.3	249.1
65°	212.1	217.6	223.1	226.8	228.5	230.3	232.0	233.8
67.5°	196.6	202.1	207.7	211.5	213.3	215.2	217.0	218.8
70°	185.8	191.6	197.4	201.1	202.8	204.4	206.0	207.7
72.5°	175.4	181.1	186.8	190.6	192.5	194.4	196.4	198.4
75°	159.6	165.4	171.2	175.0	176.8	178.6	180.3	182.1
77.5°	144.2	150.0	155.8	159.6	161.5	163.4	165.3	167.2
80°	133.8	139.4	145.1	148.9	150.8	152.7	154.6	156.5
82.5°	124.0	129.7	135.3	139.1	140.9	142.7	144.5	146.3
85°	110.0	115.7	121.4	125.1	127.0	129.0	130.9	132.7
87.5°	102.6	108.0	113.5	117.2	118.9	120.7	122.4	124.2
90°	112.9	118.1	123.2	126.6	128.4	130.2	131.9	133.7
92.5°	107.0	112.3	117.7	121.2	122.9	124.5	126.1	127.8
95°	121.1	126.2	131.3	134.6	136.0	137.3	138.6	140.0
97.5°	143.3	148.4	153.4	156.7	158.2	159.8	161.3	163.0
100°	158.8	163.9	168.8	172.0	173.4	174.7	176.1	177.4
102.5°	176.3	181.3	186.4	189.6	190.9	192.2	193.6	194.9
105°	202.6	207.7	212.6	215.9	217.4	218.9	220.4	221.8
107.5°	231.5	236.1	240.8	243.5	244.3	245.2	246.0	246.9
110°	251.3	255.6	260.0	262.7	263.7	264.8	265.9	266.9



TEST NUMBER: P331307-930

CATALOG NUMBER: SA2XXDIP-C485D725U930-4F0-1E-UDD-D1

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	271.2	275.2	279.2	281.8	282.9	284.1	285.3	286.4
115°	301.8	305.7	309.7	312.2	313.2	314.3	315.4	316.4
117.5°	331.3	334.9	338.6	340.9	341.9	342.8	343.7	344.7
120°	351.0	354.8	358.6	361.0	362.1	363.1	364.2	365.3
122.5°	371.7	375.0	378.4	380.5	381.5	382.4	383.4	384.3
125°	401.9	405.1	408.3	410.5	411.6	412.6	413.7	414.8
127.5°	431.1	434.0	436.8	438.6	439.4	440.1	440.8	441.6
130°	451.4	454.4	457.3	459.1	459.6	460.1	460.6	461.1
132.5°	471.0	473.5	476.1	477.6	478.3	478.9	479.6	480.1
135°	500.3	503.0	505.6	507.4	508.0	508.7	509.3	510.0
137.5°	528.2	530.6	533.0	534.3	534.7	535.0	535.4	535.7
140°	547.2	549.4	551.5	552.8	553.0	553.3	553.5	553.8
142.5°	565.0	566.8	568.7	569.6	569.8	570.0	570.1	570.2
145°	592.6	593.6	594.6	595.1	595.2	595.3	595.4	595.6
147.5°	617.3	617.8	618.2	618.2	618.1	617.8	617.7	617.4
150°	633.7	634.1	634.5	634.5	634.1	633.7	633.2	632.8
152.5°	650.2	650.8	651.3	651.3	650.8	650.2	649.6	649.1
155°	671.2	671.9	672.6	672.8	672.3	671.9	671.5	671.1
157.5°	690.6	691.5	692.5	692.6	691.9	691.3	690.6	689.9
160°	702.1	703.0	703.8	703.9	703.4	702.8	702.2	701.6
162.5°	712.5	713.5	714.4	714.5	713.9	713.2	712.5	711.8
165°	725.9	726.9	727.9	728.1	727.3	726.6	725.9	725.2
167.5°	737.0	738.0	739.0	739.2	738.4	737.7	736.9	736.2
170°	743.1	744.1	745.1	745.2	744.4	743.5	742.7	741.8
172.5°	747.7	748.7	749.7	749.7	748.9	748.0	747.2	746.4
175°	752.7	753.7	754.6	754.7	753.9	753.0	752.2	751.4
177.5°	755.0	755.7	756.4	756.4	755.7	755.0	754.3	753.7
180°	755.1	755.1	755.1	755.1	755.1	755.1	755.1	755.1

(END OF REPORT)