

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: P331297-935

Luminaire Tested: **SA2XXDIP-C485D530U935-4F0-1E-UDD-D**

Issue Date: 10/7/2019

Test Information

Test Method: LM-79-08
Report Number: P331297-935
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-2,
Test Lab: INNOVATION CENTER
Issue Date: 10/7/2019
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: SA2XXDIP-C485D530U935-4F0-1E-UDD-D
Description: DEFINE 2 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 485 LUMENS PER FOOT, DROP SATIN WHITE DIFFUSER
UPLIGHT 530 LUMENS PER FOOT, NO LENS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

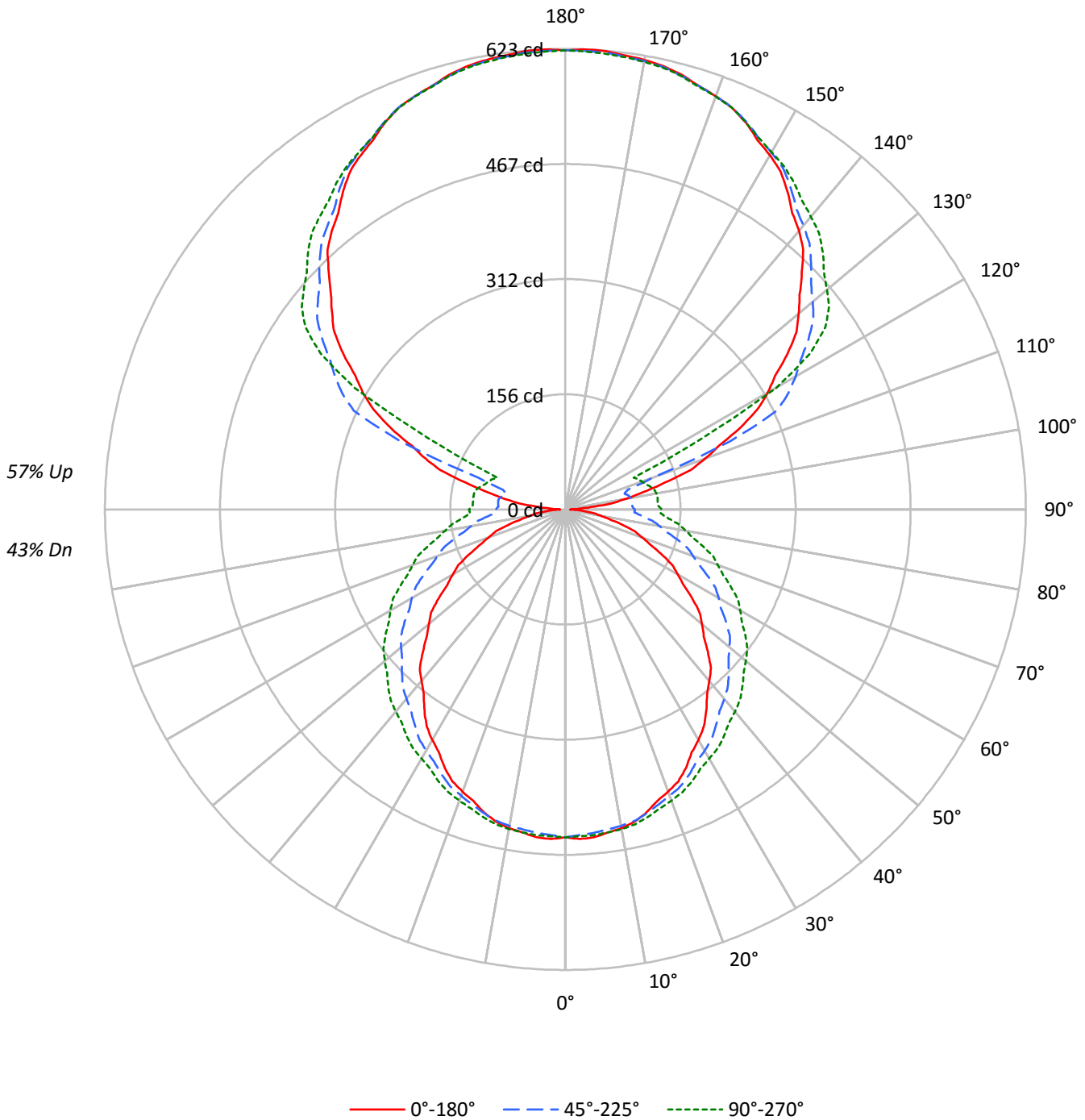
Lumens per Lamp: N/A
Luminaire Lumens: 3514.0 lumens
Efficiency: N/A
Efficacy: 107.1 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.32 / 1.42
Luminous Opening: Rectangular w/ Sides (W: 0.17' x L: 4' x H: 0.08')
CIE Type: General Diffuse

Input Watts (W): 32.8
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: P331297-935
CATALOG NUMBER: SA2XXDIP-C485D530U935-4F0-1E-UDD-D

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	0	
RCR																						
0	105	105	105	105	96	96	96	96	79	79	79	64	64	64	50	50	50	43				
1	95	90	86	82	86	82	79	75	68	65	62	54	52	50	42	40	39	33				
2	86	78	71	66	78	71	65	61	58	54	51	47	44	41	36	34	32	27				
3	78	68	60	54	71	62	55	50	51	46	42	41	37	34	31	29	27	22				
4	71	60	52	45	64	55	48	42	45	40	35	36	32	29	28	25	23	19				
5	65	53	45	39	59	49	41	36	40	35	30	32	28	25	25	22	20	16				
6	60	47	39	33	54	44	36	31	36	30	26	29	25	22	23	19	17	14				
7	55	43	35	29	50	39	32	27	33	27	23	26	22	19	20	17	15	12				
8	51	39	31	25	46	36	28	24	30	24	20	24	20	17	19	16	13	11				
9	48	35	28	22	43	32	26	21	27	22	18	22	18	15	17	14	12	10				
10	44	32	25	20	40	30	23	19	25	20	16	20	16	13	16	13	11	9				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	7164	7164	7164
5°	7199	6896	6870
10°	7153	6692	6617
15°	7055	6477	6350
20°	6930	6245	6094
25°	6807	6022	5862
30°	6634	5793	5628
35°	6458	5572	5464
40°	6275	5384	5299
45°	6100	5215	5159
50°	5912	5062	5019
55°	5713	4898	4878
60°	5473	4730	4729
65°	5222	4530	4552
70°	4938	4315	4361
75°	4578	4106	4186
80°	4008	3889	4005
85°	3471	3705	3868



TEST NUMBER: P331297-935

CATALOG NUMBER: SA2XXDIP-C485D530U935-4F0-1E-UDD-D

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	42.0	1.2
10°-20°	120.6	3.4
20°-30°	182.7	5.2
30°-40°	222.5	6.3
40°-50°	239.4	6.8
50°-60°	232.5	6.6
60°-70°	203.0	5.8
70°-80°	156.3	4.4
80°-90°	106.4	3.0
90°-100°	93.0	2.6
100°-110°	128.7	3.7
110°-120°	237.9	6.8
120°-130°	354.6	10.1
130°-140°	364.6	10.4
140°-150°	332.7	9.5
150°-160°	266.4	7.6
160°-170°	171.7	4.9
170°-180°	59.1	1.7
0°-30°	345.3	9.8
0°-40°	567.8	16.2
0°-60°	1039.7	29.6
0°-90°	1505.3	42.8
90°-120°	459.6	13.1
90°-150°	1511.6	43.0
90°-180°	2009.0	57.2
0°-180°	3514.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	444	444	444	444	444	
5°	445	443	439	443	442	42
15°	424	426	426	431	431	119
25°	386	390	396	404	406	177
35°	332	343	356	369	374	208
45°	273	290	312	332	339	210
55°	209	233	266	288	297	187
65°	143	175	212	238	247	142
75°	79	115	156	183	192	84
85°	23	63	104	130	140	25
90°	7	49	94	121	130	6
95°	34	51	91	117	125	40
105°	140	165	83	109	119	150
115°	261	277	316	136	102	257
125°	367	374	402	421	429	327
135°	453	460	470	488	493	350
145°	524	524	532	538	540	328
155°	577	574	579	581	578	266
165°	608	606	607	610	607	172
175°	622	619	620	623	619	59
180°	621	621	621	621	621	



TEST NUMBER: P331297-935

CATALOG NUMBER: SA2XXDIP-C485D530U935-4F0-1E-UDD-D

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	443.7	443.7	443.7	443.7	443.7	443.7	443.7	443.7	443.7	443.7	443.7
2.5°	446.3	445.9	445.6	445.2	444.9	444.3	443.5	442.7	442.0	441.1	441.7
5°	445.0	444.5	444.1	443.7	443.2	442.6	441.8	440.9	440.1	439.2	440.1
7.5°	441.0	440.7	440.4	440.1	439.9	439.4	438.7	438.1	437.4	436.7	437.7
10°	437.9	437.6	437.3	437.0	436.8	436.4	436.0	435.6	435.1	434.7	435.8
12.5°	432.7	432.8	432.9	432.9	433.0	432.8	432.6	432.2	431.9	431.6	432.7
15°	424.4	424.6	425.0	425.2	425.5	425.7	425.7	425.7	425.7	425.7	427.0
17.5°	413.6	414.2	414.8	415.4	416.0	416.6	417.0	417.4	417.9	418.4	419.7
20°	406.4	407.1	407.9	408.5	409.2	409.9	410.4	411.0	411.6	412.2	413.7
22.5°	398.6	399.5	400.4	401.1	402.0	402.8	403.6	404.4	405.2	406.0	407.6
25°	385.8	386.8	387.8	388.8	389.8	391.0	392.3	393.6	394.9	396.1	397.8
27.5°	370.4	372.0	373.7	375.3	376.9	378.5	380.0	381.5	383.0	384.5	386.7
30°	360.1	362.0	363.8	365.7	367.6	369.4	371.3	373.1	375.0	376.8	379.1
32.5°	348.8	350.9	352.9	355.1	357.1	359.3	361.4	363.7	365.8	368.1	370.7
35°	332.4	334.8	337.3	339.8	342.2	344.7	347.4	350.2	352.8	355.6	358.7
37.5°	314.7	317.5	320.3	323.1	325.9	329.1	332.6	336.0	339.6	343.1	346.6
40°	302.9	306.0	309.2	312.3	315.5	318.9	322.8	326.7	330.5	334.4	338.1
42.5°	291.5	294.7	297.8	301.0	304.1	307.9	312.4	316.8	321.2	325.6	329.7
45°	272.7	276.5	280.3	284.2	288.1	292.5	297.5	302.5	307.5	312.5	316.9
47.5°	254.0	258.2	262.4	266.6	270.8	275.9	281.7	287.6	293.4	299.3	303.9
50°	241.2	245.6	250.0	254.4	258.8	264.2	270.7	277.2	283.6	290.0	294.9
52.5°	228.8	233.4	238.1	242.8	247.5	253.1	259.9	266.7	273.5	280.3	285.2
55°	209.0	214.1	219.3	224.4	229.5	235.8	243.3	250.7	258.1	265.5	270.7
57.5°	189.4	195.3	201.0	206.8	212.7	219.3	226.9	234.5	242.0	249.6	255.2
60°	175.6	181.7	187.9	194.0	200.1	207.2	215.4	223.5	231.7	239.9	245.3
62.5°	163.2	169.5	176.0	182.4	188.7	196.0	204.1	212.2	220.4	228.5	234.3
65°	142.8	149.7	156.8	163.8	170.7	178.5	186.9	195.4	203.8	212.2	218.1
67.5°	124.0	131.3	138.6	145.9	153.3	161.2	169.9	178.5	187.1	195.7	201.6
70°	110.6	118.0	125.4	132.9	140.3	148.4	157.3	166.2	175.0	183.9	190.0
72.5°	98.2	105.9	113.6	121.2	128.9	137.2	146.2	155.2	164.1	173.1	179.2
75°	79.1	87.1	95.1	103.1	111.1	119.7	128.8	137.9	147.1	156.3	162.4
77.5°	60.6	69.0	77.3	85.7	94.1	102.9	112.2	121.5	130.8	140.1	146.2
80°	48.2	56.9	65.7	74.4	83.1	92.1	101.4	110.6	119.9	129.2	135.3
82.5°	38.0	46.6	55.1	63.7	72.3	81.4	90.7	100.1	109.5	119.0	124.9
85°	23.2	32.0	40.9	49.8	58.5	67.6	76.7	85.8	95.1	104.2	110.2
87.5°	12.7	21.4	30.1	38.9	47.6	56.7	66.0	75.3	84.6	93.8	99.8
90°	6.9	16.3	25.7	35.0	44.4	54.1	64.1	74.0	83.9	93.8	100.0
92.5°	15.0	22.6	30.2	37.9	45.5	53.9	63.1	72.2	81.5	90.7	96.5
95°	34.4	37.8	41.2	44.6	48.0	54.4	63.6	72.9	82.2	91.4	97.4
97.5°	62.4	59.2	55.9	52.5	49.2	52.5	62.3	72.2	82.1	91.9	97.6
100°	84.0	75.7	67.2	58.9	50.5	51.1	60.8	70.5	80.2	89.9	96.0
102.5°	107.3	109.2	111.1	113.0	114.9	112.7	106.3	99.9	93.4	87.0	93.2
105°	139.8	147.0	154.1	161.3	168.4	162.0	142.2	122.3	102.5	82.7	88.8
107.5°	177.7	183.4	189.2	194.9	200.6	190.7	165.1	139.6	114.0	88.4	92.0
110°	201.6	206.6	211.5	216.5	221.4	213.0	191.1	169.3	147.4	125.5	120.2



TEST NUMBER: P331297-935

CATALOG NUMBER: SA2XXDIP-C485D530U935-4F0-1E-UDD-D

CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	224.6	228.9	233.2	237.4	241.7	243.6	243.1	242.6	242.1	241.7	209.8
115°	261.0	264.2	267.5	270.8	274.1	280.1	289.0	298.0	306.9	315.8	273.9
117.5°	292.7	295.7	298.6	301.5	304.4	309.7	317.4	325.0	332.7	340.4	333.5
120°	316.4	318.6	320.6	322.7	324.8	329.5	337.1	344.6	352.1	359.6	364.8
122.5°	336.6	338.4	340.2	342.0	343.8	348.4	355.7	363.1	370.4	377.7	382.3
125°	366.6	367.9	369.2	370.5	371.8	375.7	382.1	388.6	395.1	401.6	406.1
127.5°	394.3	395.6	396.9	398.2	399.5	402.8	407.9	412.9	418.0	423.2	427.7
130°	412.0	413.5	414.9	416.4	417.8	420.6	424.6	428.8	432.8	437.0	441.5
132.5°	430.0	431.2	432.4	433.6	434.8	437.1	440.6	443.9	447.4	450.7	455.0
135°	452.6	454.3	455.9	457.4	459.1	461.0	463.4	465.7	468.0	470.4	474.3
137.5°	476.3	477.4	478.5	479.6	480.7	482.0	483.7	485.3	487.0	488.6	492.2
140°	491.8	492.4	493.1	493.7	494.4	495.4	496.8	498.2	499.6	500.9	504.1
142.5°	504.7	505.2	505.8	506.4	507.0	508.0	509.3	510.6	511.9	513.2	515.8
145°	524.3	524.3	524.2	524.1	524.0	524.8	526.5	528.1	529.9	531.6	533.1
147.5°	542.1	541.7	541.3	541.0	540.5	541.2	542.9	544.6	546.2	547.9	548.5
150°	553.5	552.8	552.2	551.5	550.8	551.2	552.8	554.4	556.0	557.6	558.2
152.5°	563.3	562.5	561.7	560.9	560.2	560.5	562.1	563.6	565.1	566.6	567.2
155°	577.4	576.5	575.6	574.7	573.8	573.9	575.1	576.4	577.6	578.8	579.4
157.5°	588.4	587.7	586.9	586.2	585.4	585.5	586.3	587.1	588.0	588.8	589.4
160°	595.0	594.3	593.7	593.1	592.5	592.5	593.1	593.7	594.3	595.0	595.6
162.5°	600.6	600.0	599.4	598.8	598.3	598.2	598.7	599.3	599.8	600.3	601.0
165°	608.4	607.8	607.2	606.6	606.0	605.9	606.1	606.4	606.7	607.0	607.8
167.5°	614.2	613.5	612.9	612.3	611.7	611.6	611.8	612.2	612.4	612.7	613.4
170°	617.3	616.8	616.2	615.6	615.0	614.8	615.0	615.2	615.4	615.6	616.3
172.5°	619.6	619.0	618.4	617.8	617.2	616.9	617.2	617.3	617.5	617.8	618.5
175°	622.3	621.6	621.0	620.3	619.5	619.3	619.5	619.7	619.8	620.1	620.8
177.5°	622.8	622.2	621.6	621.1	620.5	620.3	620.4	620.4	620.5	620.6	621.2
180°	621.0	621.0	621.0	621.0	621.0	621.0	621.0	621.0	621.0	621.0	621.0



TEST NUMBER: P331297-935

CATALOG NUMBER: SA2XXDIP-C485D530U935-4F0-1E-UDD-D

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	443.7	443.7	443.7	443.7	443.7	443.7	443.7	443.7
2.5°	442.3	442.8	443.4	443.6	443.3	443.2	442.9	442.6
5°	440.9	441.8	442.6	443.0	442.8	442.7	442.6	442.4
7.5°	438.8	439.8	440.8	441.3	441.2	441.0	440.8	440.7
10°	437.0	438.1	439.3	439.8	439.6	439.5	439.4	439.2
12.5°	433.9	435.1	436.2	436.7	436.5	436.4	436.3	436.1
15°	428.3	429.6	430.8	431.4	431.3	431.1	430.9	430.8
17.5°	421.0	422.4	423.7	424.4	424.4	424.4	424.4	424.4
20°	415.3	416.9	418.4	419.2	419.2	419.2	419.2	419.2
22.5°	409.1	410.7	412.3	413.2	413.5	413.6	413.9	414.1
25°	399.5	401.2	402.9	404.1	404.5	404.9	405.4	405.8
27.5°	388.9	391.1	393.2	394.4	394.8	395.1	395.4	395.7
30°	381.4	383.7	386.0	387.3	387.7	388.1	388.6	389.0
32.5°	373.3	375.9	378.6	380.3	381.1	381.9	382.6	383.4
35°	361.9	365.1	368.2	370.2	371.3	372.2	373.2	374.3
37.5°	350.1	353.6	357.1	359.3	360.4	361.4	362.5	363.6
40°	341.8	345.5	349.2	351.7	353.0	354.3	355.6	356.9
42.5°	333.7	337.8	341.8	344.6	345.8	347.1	348.4	349.7
45°	321.4	325.8	330.2	333.1	334.6	336.0	337.4	338.9
47.5°	308.5	313.1	317.8	320.9	322.4	324.0	325.6	327.2
50°	299.7	304.5	309.4	312.6	314.3	315.8	317.4	318.9
52.5°	290.2	295.2	300.1	303.4	305.1	306.9	308.5	310.2
55°	275.9	281.0	286.1	289.6	291.5	293.3	295.2	297.0
57.5°	260.7	266.2	271.8	275.5	277.4	279.3	281.2	283.1
60°	250.7	256.1	261.6	265.3	267.3	269.3	271.3	273.3
62.5°	240.0	245.8	251.6	255.5	257.4	259.2	261.1	263.0
65°	223.9	229.8	235.7	239.5	241.3	243.2	245.0	246.9
67.5°	207.6	213.4	219.4	223.3	225.2	227.2	229.2	231.1
70°	196.2	202.3	208.4	212.4	214.1	215.9	217.6	219.3
72.5°	185.2	191.2	197.3	201.3	203.3	205.3	207.4	209.5
75°	168.6	174.7	180.8	184.9	186.7	188.6	190.4	192.3
77.5°	152.3	158.4	164.5	168.6	170.6	172.5	174.6	176.6
80°	141.3	147.2	153.3	157.2	159.3	161.3	163.2	165.2
82.5°	131.0	137.0	142.9	146.9	148.8	150.7	152.6	154.5
85°	116.1	122.2	128.2	132.2	134.1	136.2	138.2	140.2
87.5°	105.7	111.7	117.6	121.5	123.4	125.3	127.1	129.0
90°	106.3	112.5	118.7	122.8	124.7	126.7	128.5	130.4
92.5°	102.4	108.2	114.1	118.0	119.8	121.7	123.5	125.3
95°	103.3	109.3	115.2	119.0	120.5	122.2	123.8	125.4
97.5°	103.2	108.9	114.6	118.4	120.2	122.0	123.8	125.6
100°	102.1	108.1	114.3	118.2	119.9	121.7	123.5	125.3
102.5°	99.4	105.6	111.8	115.9	117.8	119.6	121.5	123.3
105°	94.9	101.0	107.1	111.2	113.1	115.1	117.1	119.0
107.5°	95.7	99.4	103.1	106.0	108.0	109.9	111.8	113.8
110°	114.8	109.3	103.9	102.2	104.2	106.2	108.1	110.1



TEST NUMBER: P331297-935

CATALOG NUMBER: SA2XXDIP-C485D530U935-4F0-1E-UDD-D

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	178.0	146.1	114.3	99.3	101.2	103.1	105.0	106.9
115°	232.0	190.0	148.0	124.2	118.6	113.0	107.4	101.8
117.5°	326.5	319.5	312.5	298.0	275.9	253.7	231.5	209.3
120°	370.0	375.1	380.4	377.0	365.2	353.2	341.3	329.4
122.5°	386.9	391.5	396.1	397.8	396.5	395.3	394.0	392.7
125°	410.7	415.3	419.7	422.8	424.5	426.0	427.6	429.2
127.5°	432.3	436.9	441.4	444.4	445.7	446.9	448.3	449.6
130°	446.0	450.6	455.0	457.9	458.9	459.9	461.0	462.0
132.5°	459.3	463.6	467.8	470.5	471.5	472.5	473.6	474.6
135°	478.4	482.3	486.3	488.8	489.7	490.7	491.6	492.6
137.5°	495.8	499.5	503.1	505.1	505.8	506.4	507.0	507.7
140°	507.3	510.5	513.7	515.5	515.8	516.2	516.5	516.9
142.5°	518.5	521.2	523.8	525.2	525.5	525.7	526.0	526.2
145°	534.7	536.2	537.8	538.6	538.9	539.1	539.3	539.5
147.5°	549.1	549.8	550.4	550.7	550.6	550.6	550.5	550.4
150°	558.8	559.4	560.0	560.1	559.6	559.0	558.5	558.1
152.5°	567.8	568.4	569.0	568.9	568.3	567.7	567.0	566.4
155°	580.0	580.6	581.2	581.0	580.2	579.5	578.7	577.8
157.5°	590.1	590.8	591.5	591.5	590.6	589.9	589.1	588.3
160°	596.1	596.7	597.3	597.3	596.6	595.9	595.1	594.4
162.5°	601.7	602.4	603.0	603.0	602.1	601.2	600.4	599.5
165°	608.5	609.2	609.8	609.8	609.2	608.5	607.8	607.0
167.5°	614.1	614.8	615.5	615.4	614.5	613.6	612.7	611.8
170°	617.0	617.7	618.4	618.3	617.3	616.5	615.6	614.7
172.5°	619.1	619.8	620.5	620.4	619.6	618.6	617.8	616.8
175°	621.5	622.2	622.8	622.8	621.7	620.7	619.7	618.7
177.5°	621.7	622.3	622.8	622.8	622.1	621.3	620.6	619.9
180°	621.0	621.0	621.0	621.0	621.0	621.0	621.0	621.0

(END OF REPORT)