

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: P331306

Luminaire Tested: **SA2XXDIP-C485D725U835-4F0-1E-UDD-D**

Issue Date: 10/7/2019

**Test Information**

Test Method: LM-79-08  
Report Number: P331306  
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-C485D725U835-4F0-1E-UDD-D  
Description: DEFINE 2 DIRECT-INDIRECT PENDANT LED LUMINAIRE  
DOWNLIGHT 485 LUMENS PER FOOT, DROP SATIN WHITE DIFFUSER  
UPLIGHT 725 LUMENS PER FOOT, NO LENS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

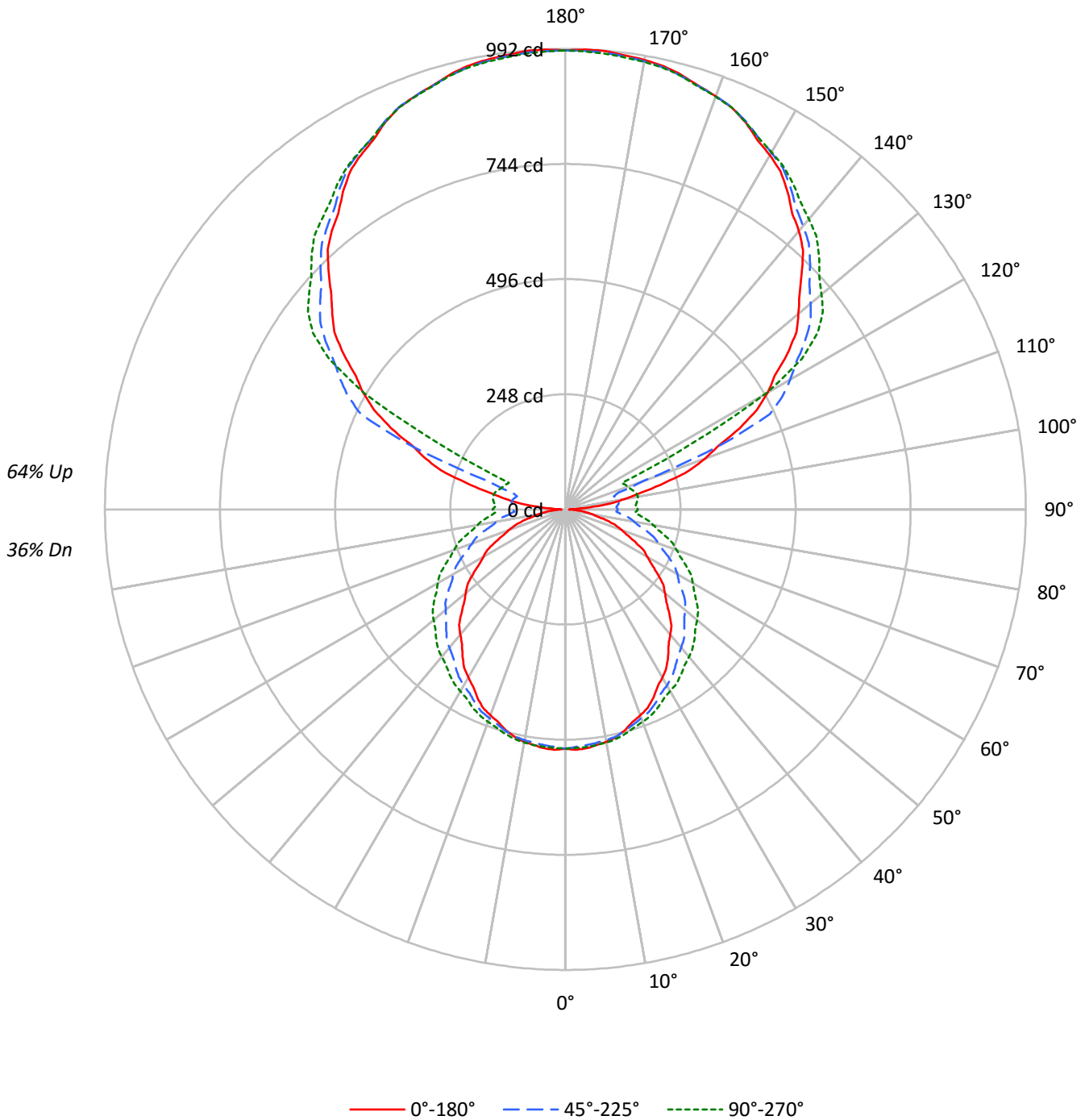
Lumens per Lamp: N/A  
Luminaire Lumens: 4865.5 lumens  
Efficiency: N/A  
Efficacy: 126.7 lumens/watt  
Spacing Criteria (0/90/45): 1.21 / 1.32 / 1.42  
Luminous Opening: Rectangular w/ Sides (W: 0.17' x L: 4' x H: 0.08')  
CIE Type: Semi-Indirect

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: P331306  
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### Luminous Intensity Polar Plot





TEST NUMBER: P331306

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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	0
RCR																		
0	104	104	104	104	94	94	94	94	76	76	76	59	59	59	43	43	43	36
1	94	89	85	81	84	80	77	74	64	62	60	50	48	47	36	35	34	28
2	85	77	70	65	76	70	64	59	56	52	48	43	40	38	31	30	28	23
3	77	67	60	54	69	61	54	49	49	44	40	38	34	32	27	25	23	19
4	70	59	51	45	63	54	47	41	43	38	34	33	30	27	24	22	20	16
5	64	52	44	38	58	48	40	35	38	33	29	30	26	23	22	19	17	13
6	59	47	39	33	53	43	35	30	34	29	25	27	23	20	20	17	15	12
7	54	42	34	29	49	38	31	26	31	26	22	24	20	17	18	15	13	10
8	50	38	30	25	45	35	28	23	28	23	19	22	18	15	16	14	12	9
9	47	35	27	22	42	32	25	20	26	21	17	20	16	14	15	12	10	8
10	44	32	24	20	39	29	22	18	24	19	15	19	15	12	14	11	9	7

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	8320	8320	8320
5°	8361	8009	7978
10°	8308	7773	7685
15°	8193	7522	7376
20°	8049	7253	7078
25°	7906	6994	6809
30°	7704	6728	6536
35°	7501	6472	6346
40°	7287	6254	6154
45°	7084	6058	5992
50°	6865	5879	5830
55°	6634	5689	5666
60°	6355	5493	5493
65°	6063	5262	5287
70°	5738	5012	5065
75°	5319	4768	4860
80°	4657	4519	4652
85°	4025	4303	4491



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	48.8	1.0
10°-20°	140.0	2.9
20°-30°	212.2	4.4
30°-40°	258.4	5.3
40°-50°	278.0	5.7
50°-60°	270.0	5.5
60°-70°	235.8	4.8
70°-80°	181.5	3.7
80°-90°	124.2	2.6
90°-100°	116.9	2.4
100°-110°	182.2	3.7
110°-120°	363.7	7.5
120°-130°	556.2	11.4
130°-140°	577.0	11.9
140°-150°	529.1	10.9
150°-160°	424.1	8.7
160°-170°	273.3	5.6
170°-180°	94.1	1.9
0°-30°	401.0	8.2
0°-40°	659.5	13.6
0°-60°	1207.5	24.8
0°-90°	1749.0	35.9
90°-120°	662.8	13.6
90°-150°	2325.1	47.8
90°-180°	3116.0	64.0
0°-180°	4865.5	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	515	515	515	515	515	
5°	517	514	510	514	514	49
15°	493	494	494	501	500	139
25°	448	453	460	469	471	206
35°	386	399	413	429	435	241
45°	317	337	363	385	394	244
55°	243	270	308	334	345	217
65°	166	203	246	276	287	165
75°	92	134	182	212	223	97
85°	27	73	121	151	163	29
90°	8	60	113	145	157	7
95°	52	66	114	144	154	62
105°	221	253	108	141	153	237
115°	414	436	486	192	134	408
125°	583	594	630	654	664	520
135°	720	732	746	768	773	556
145°	835	835	846	855	856	522
155°	919	914	921	925	920	423
165°	969	965	966	971	966	274
175°	991	986	987	992	985	94
180°	989	989	989	989	989	



TEST NUMBER: P331306  
 CATALOG NUMBER: SA2XXDIP-C485D725U835-4F0-1E-UDD-D

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	515.3	515.3	515.3	515.3	515.3	515.3	515.3	515.3	515.3	515.3	515.3
2.5°	518.3	517.9	517.5	517.1	516.7	516.0	515.1	514.2	513.3	512.3	513.0
5°	516.8	516.3	515.8	515.3	514.8	514.1	513.1	512.1	511.1	510.1	511.1
7.5°	512.2	511.8	511.5	511.2	510.9	510.3	509.5	508.8	508.0	507.2	508.4
10°	508.6	508.3	507.9	507.6	507.3	506.9	506.4	505.9	505.4	504.9	506.2
12.5°	502.6	502.7	502.8	502.8	502.9	502.7	502.4	502.0	501.6	501.3	502.6
15°	492.9	493.2	493.6	493.9	494.2	494.4	494.4	494.4	494.4	494.4	495.9
17.5°	480.4	481.1	481.8	482.5	483.2	483.8	484.3	484.8	485.4	485.9	487.4
20°	472.0	472.8	473.7	474.5	475.3	476.1	476.7	477.4	478.1	478.7	480.5
22.5°	463.0	464.0	465.0	465.9	466.9	467.8	468.8	469.7	470.6	471.6	473.4
25°	448.1	449.3	450.4	451.6	452.7	454.1	455.6	457.1	458.6	460.0	462.0
27.5°	430.2	432.1	434.0	435.9	437.7	439.6	441.3	443.1	444.8	446.6	449.1
30°	418.2	420.4	422.5	424.7	426.9	429.0	431.2	433.3	435.5	437.6	440.3
32.5°	405.1	407.5	409.9	412.4	414.8	417.3	419.8	422.4	424.9	427.5	430.5
35°	386.1	388.9	391.8	394.6	397.4	400.4	403.5	406.7	409.8	413.0	416.6
37.5°	365.5	368.8	372.0	375.3	378.5	382.2	386.3	390.3	394.4	398.5	402.6
40°	351.8	355.4	359.1	362.7	366.4	370.4	374.9	379.4	383.9	388.4	392.7
42.5°	338.6	342.3	345.9	349.6	353.2	357.6	362.8	367.9	373.1	378.2	382.9
45°	316.7	321.1	325.6	330.1	334.6	339.7	345.5	351.3	357.2	363.0	368.1
47.5°	295.0	299.9	304.8	309.6	314.5	320.4	327.2	334.0	340.8	347.6	353.0
50°	280.1	285.2	290.4	295.5	300.6	306.9	314.4	321.9	329.4	336.8	342.5
52.5°	265.7	271.1	276.5	282.0	287.4	294.0	301.9	309.7	317.6	325.5	331.2
55°	242.7	248.7	254.7	260.6	266.6	273.9	282.6	291.2	299.8	308.4	314.4
57.5°	220.0	226.8	233.5	240.2	247.0	254.7	263.5	272.3	281.1	289.9	296.4
60°	203.9	211.0	218.2	225.3	232.4	240.7	250.2	259.6	269.1	278.6	284.9
62.5°	189.5	196.9	204.4	211.8	219.2	227.6	237.0	246.5	256.0	265.4	272.1
65°	165.8	173.9	182.1	190.2	198.3	207.3	217.1	226.9	236.7	246.5	253.3
67.5°	144.0	152.5	161.0	169.5	178.0	187.2	197.3	207.3	217.3	227.3	234.2
70°	128.5	137.1	145.7	154.3	163.0	172.4	182.7	193.0	203.3	213.6	220.7
72.5°	114.1	123.0	131.9	140.8	149.7	159.4	169.8	180.2	190.6	201.0	208.1
75°	91.9	101.2	110.4	119.7	129.0	139.0	149.6	160.2	170.9	181.5	188.6
77.5°	70.4	80.1	89.8	99.5	109.3	119.5	130.3	141.1	151.9	162.7	169.8
80°	56.0	66.1	76.3	86.4	96.5	107.0	117.8	128.5	139.3	150.1	157.1
82.5°	44.1	54.1	64.0	74.0	84.0	94.5	105.4	116.3	127.2	138.2	145.1
85°	26.9	37.2	47.5	57.8	68.0	78.5	89.1	99.7	110.4	121.0	128.0
87.5°	14.8	25.0	35.3	45.5	55.7	66.3	77.2	88.1	98.9	109.8	116.7
90°	8.2	19.6	30.9	42.3	53.7	65.3	77.2	89.1	101.0	112.9	120.3
92.5°	21.3	30.1	38.9	47.7	56.5	66.4	77.2	88.1	98.9	109.8	116.7
95°	52.5	55.0	57.6	60.1	62.7	69.5	80.6	91.6	102.7	113.8	120.9
97.5°	97.5	89.7	81.8	74.0	66.1	68.3	80.4	92.5	104.7	116.8	123.6
100°	131.8	116.2	100.6	84.9	69.3	67.5	79.5	91.5	103.5	115.5	122.9
102.5°	169.0	170.0	171.0	172.0	173.0	166.7	153.1	139.6	126.0	112.4	120.1
105°	221.2	230.8	240.4	249.9	259.5	246.9	212.2	177.4	142.6	107.9	115.4
107.5°	281.6	289.3	297.0	304.7	312.4	294.3	250.5	206.8	163.0	119.2	123.0
110°	319.9	326.5	333.2	339.9	346.5	330.9	293.1	255.3	217.5	179.7	169.1



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	356.5	362.3	368.0	373.7	379.5	380.5	376.9	373.3	369.7	366.1	313.4
115°	414.3	418.8	423.4	427.9	432.4	440.4	451.8	463.3	474.7	486.2	417.5
117.5°	465.2	469.4	473.6	477.9	482.1	489.0	498.6	508.3	517.9	527.5	514.7
120°	503.0	506.0	509.1	512.1	515.2	521.4	530.9	540.4	549.9	559.4	566.0
122.5°	535.0	537.8	540.6	543.4	546.1	552.2	561.6	570.9	580.3	589.6	595.3
125°	583.1	585.1	587.2	589.3	591.3	596.5	604.9	613.2	621.5	629.8	635.4
127.5°	627.3	629.4	631.5	633.6	635.8	640.1	646.6	653.2	659.7	666.2	672.0
130°	655.3	657.7	660.1	662.4	664.8	668.6	673.9	679.1	684.3	689.6	695.3
132.5°	683.9	685.9	687.9	689.9	691.9	695.1	699.6	704.0	708.4	712.9	718.2
135°	720.4	722.9	725.5	728.0	730.5	733.4	736.5	739.5	742.6	745.7	750.8
137.5°	758.0	759.7	761.5	763.2	765.0	767.0	769.4	771.7	774.1	776.4	781.1
140°	782.6	783.7	784.8	785.9	787.0	788.6	790.7	792.8	794.9	796.9	801.0
142.5°	803.2	804.2	805.2	806.1	807.1	808.6	810.7	812.8	814.9	816.9	820.4
145°	834.8	834.6	834.5	834.3	834.2	835.4	838.1	840.8	843.5	846.2	848.3
147.5°	863.0	862.4	861.8	861.2	860.6	861.6	864.3	866.9	869.6	872.3	873.2
150°	881.3	880.2	879.1	878.0	876.8	877.6	880.1	882.6	885.2	887.7	888.7
152.5°	896.7	895.5	894.3	893.0	891.8	892.4	894.8	897.2	899.6	902.0	903.0
155°	919.2	917.8	916.3	914.9	913.5	913.7	915.6	917.5	919.4	921.3	922.3
157.5°	936.8	935.6	934.4	933.2	932.0	932.0	933.4	934.7	936.0	937.4	938.5
160°	947.1	946.1	945.2	944.2	943.3	943.3	944.2	945.2	946.1	947.1	948.1
162.5°	956.3	955.3	954.4	953.4	952.4	952.4	953.2	954.0	954.9	955.7	956.8
165°	968.6	967.6	966.7	965.7	964.7	964.5	965.0	965.5	965.9	966.4	967.5
167.5°	977.7	976.8	975.8	974.9	973.9	973.6	974.1	974.5	975.0	975.4	976.5
170°	982.9	981.9	981.0	980.0	979.1	978.7	979.1	979.4	979.7	980.0	981.1
172.5°	986.3	985.3	984.4	983.4	982.5	982.2	982.5	982.8	983.1	983.4	984.6
175°	990.7	989.6	988.5	987.4	986.3	985.9	986.2	986.5	986.8	987.2	988.3
177.5°	991.5	990.6	989.7	988.8	987.9	987.5	987.6	987.8	987.9	988.0	988.9
180°	988.6	988.6	988.6	988.6	988.6	988.6	988.6	988.6	988.6	988.6	988.6



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**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
0°	515.3	515.3	515.3	515.3	515.3	515.3	515.3	515.3
2.5°	513.7	514.3	515.0	515.2	514.9	514.7	514.4	514.1
5°	512.1	513.1	514.1	514.5	514.3	514.2	514.0	513.8
7.5°	509.6	510.8	512.0	512.5	512.4	512.2	512.0	511.9
10°	507.5	508.8	510.2	510.8	510.6	510.4	510.3	510.1
12.5°	503.9	505.3	506.6	507.2	507.0	506.8	506.7	506.5
15°	497.4	498.9	500.4	501.0	500.9	500.7	500.5	500.4
17.5°	489.0	490.6	492.1	492.9	492.9	492.9	492.9	492.9
20°	482.4	484.2	486.0	486.9	486.9	486.9	486.9	486.9
22.5°	475.2	477.0	478.9	479.9	480.2	480.4	480.7	481.0
25°	464.0	466.0	468.0	469.3	469.8	470.3	470.8	471.3
27.5°	451.7	454.2	456.7	458.1	458.5	458.9	459.2	459.6
30°	443.0	445.6	448.3	449.8	450.3	450.8	451.3	451.8
32.5°	433.6	436.6	439.7	441.7	442.6	443.5	444.4	445.3
35°	420.3	424.0	427.6	430.0	431.2	432.3	433.5	434.7
37.5°	406.6	410.7	414.7	417.3	418.6	419.8	421.0	422.3
40°	397.0	401.3	405.6	408.5	410.0	411.5	413.0	414.5
42.5°	387.6	392.3	397.0	400.2	401.6	403.1	404.6	406.1
45°	373.3	378.4	383.5	386.9	388.6	390.3	391.9	393.6
47.5°	358.3	363.7	369.1	372.7	374.5	376.3	378.2	380.0
50°	348.1	353.7	359.4	363.1	365.0	366.8	368.6	370.4
52.5°	337.0	342.8	348.6	352.4	354.4	356.4	358.3	360.3
55°	320.4	326.4	332.3	336.4	338.6	340.7	342.9	345.0
57.5°	302.8	309.2	315.7	320.0	322.2	324.4	326.6	328.8
60°	291.2	297.5	303.8	308.1	310.4	312.8	315.1	317.4
62.5°	278.8	285.5	292.2	296.7	298.9	301.1	303.3	305.5
65°	260.1	266.9	273.7	278.2	280.3	282.5	284.6	286.8
67.5°	241.1	247.9	254.8	259.4	261.6	263.9	266.2	268.4
70°	227.9	235.0	242.1	246.7	248.7	250.7	252.7	254.7
72.5°	215.1	222.1	229.1	233.8	236.1	238.5	240.9	243.3
75°	195.8	202.9	210.0	214.7	216.8	219.0	221.1	223.3
77.5°	176.9	184.0	191.1	195.8	198.1	200.4	202.8	205.1
80°	164.1	171.0	178.0	182.6	185.0	187.3	189.6	191.9
82.5°	152.1	159.1	166.0	170.6	172.8	175.0	177.2	179.4
85°	134.9	141.9	148.9	153.5	155.8	158.2	160.5	162.8
87.5°	123.7	130.6	137.5	142.1	144.3	146.5	148.7	150.8
90°	127.8	135.2	142.6	147.5	149.8	152.1	154.4	156.7
92.5°	123.6	130.6	137.5	142.0	144.2	146.4	148.6	150.8
95°	128.0	135.1	142.2	146.7	148.5	150.3	152.2	154.0
97.5°	130.4	137.1	143.9	148.4	150.5	152.7	154.8	157.0
100°	130.3	137.7	145.1	149.9	152.0	154.2	156.3	158.5
102.5°	127.7	135.4	143.1	148.0	150.3	152.6	154.8	157.1
105°	123.0	130.5	138.1	143.1	145.6	148.0	150.5	152.9
107.5°	126.8	130.6	134.4	137.5	140.0	142.4	144.9	147.4
110°	158.5	147.9	137.4	133.3	135.8	138.2	140.7	143.1





TEST NUMBER: P331306

CATALOG NUMBER: SA2XXDIP-C485D725U835-4F0-1E-UDD-D

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	260.7	208.0	155.4	130.2	132.5	134.9	137.2	139.5
115°	348.9	280.3	211.7	172.6	162.9	153.3	143.7	134.1
117.5°	501.8	488.9	476.0	451.6	415.7	379.7	343.8	307.9
120°	572.5	579.1	585.7	579.1	559.5	539.9	520.2	500.6
122.5°	600.9	606.6	612.3	613.8	611.2	608.6	606.0	603.4
125°	641.0	646.6	652.2	656.0	658.0	659.9	661.9	663.9
127.5°	677.7	683.5	689.2	692.8	694.4	696.0	697.5	699.1
130°	701.0	706.8	712.5	715.9	717.1	718.3	719.4	720.6
132.5°	723.6	728.9	734.2	737.5	738.7	739.8	741.0	742.2
135°	755.9	760.9	766.0	769.1	770.1	771.1	772.1	773.1
137.5°	785.7	790.3	794.9	797.5	798.1	798.7	799.3	799.8
140°	805.1	809.2	813.3	815.4	815.6	815.8	816.0	816.2
142.5°	823.8	827.2	830.6	832.4	832.5	832.5	832.6	832.7
145°	850.5	852.6	854.7	855.7	855.8	855.8	855.9	855.9
147.5°	874.2	875.2	876.1	876.5	876.2	875.9	875.7	875.4
150°	889.6	890.6	891.5	891.6	890.8	890.0	889.2	888.4
152.5°	903.9	904.9	905.9	905.8	904.8	903.7	902.7	901.6
155°	923.3	924.2	925.2	925.0	923.7	922.5	921.2	919.9
157.5°	939.5	940.6	941.7	941.6	940.4	939.1	937.9	936.7
160°	949.0	950.0	950.9	950.8	949.7	948.6	947.5	946.4
162.5°	957.8	958.9	960.0	959.9	958.5	957.1	955.8	954.4
165°	968.6	969.8	970.9	970.9	969.8	968.6	967.5	966.4
167.5°	977.7	978.8	979.9	979.7	978.3	976.9	975.4	974.0
170°	982.2	983.3	984.5	984.3	982.9	981.4	980.0	978.6
172.5°	985.7	986.8	987.9	987.7	986.3	984.9	983.4	982.0
175°	989.4	990.5	991.6	991.4	989.8	988.2	986.6	985.0
177.5°	989.8	990.7	991.6	991.5	990.3	989.2	988.0	986.9
180°	988.6	988.6	988.6	988.6	988.6	988.6	988.6	988.6

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