

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: P331261-935

Luminaire Tested: **S122DIP-S290D725U935-4F0-1E-UDD-D**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P331261-935
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-2,
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S122DIP-S290D725U935-4F0-1E-UDD-D
Description: DEFINE 2 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 290 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: 3526.1 lumens
Efficiency: N/A
Efficacy: 113.0 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

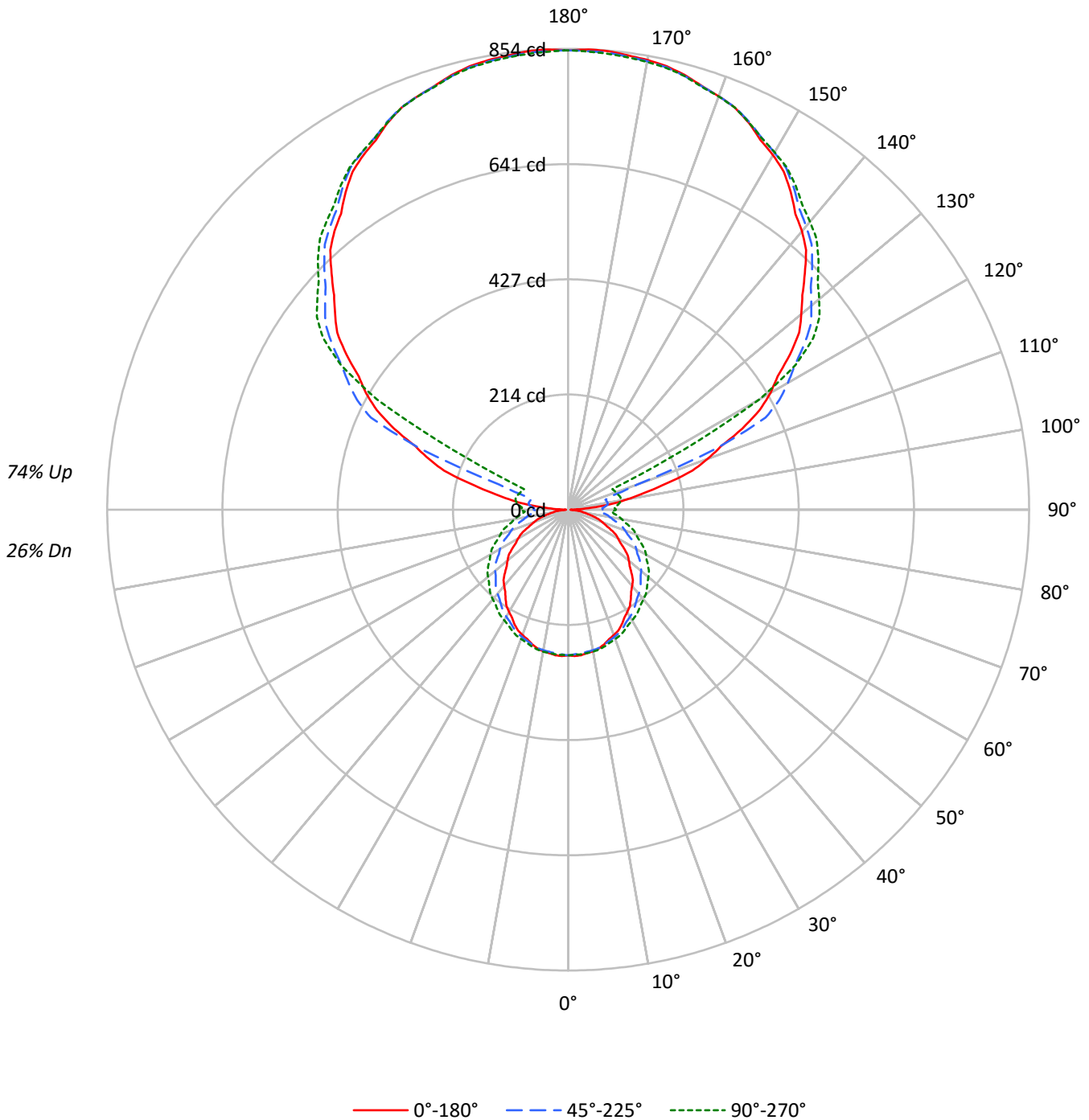
Input Watts (W): 31.2
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P331261-935

CATALOG NUMBER: S122DIP-S290D725U935-4F0-1E-UDD-D

Luminous Intensity Polar Plot





TEST NUMBER: P331261-935

CATALOG NUMBER: S122DIP-S290D725U935-4F0-1E-UDD-D

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	101	101	101	101	90	90	90	90	70	70	70	51	51	51	34	34	34	26
1	92	87	83	79	81	78	74	71	60	58	56	44	42	41	29	28	27	20
2	83	76	69	64	74	67	62	58	52	48	45	38	36	34	25	23	22	16
3	76	66	59	53	67	59	53	48	46	41	38	33	30	28	22	20	19	13
4	69	58	50	44	61	52	45	40	40	36	32	29	26	24	19	17	16	11
5	63	52	44	38	56	46	39	34	36	31	27	26	23	20	17	15	14	10
6	58	46	38	32	51	41	34	29	32	27	23	24	20	18	16	13	12	8
7	53	41	34	28	47	37	30	25	29	24	20	21	18	15	14	12	10	7
8	49	37	30	25	44	33	27	22	26	21	18	19	16	14	13	11	9	7
9	46	34	27	22	41	30	24	20	24	19	16	18	14	12	12	10	8	6
10	43	31	24	19	38	28	22	17	22	17	14	16	13	11	11	9	7	5

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	4358	4358	4358
5°	4379	4195	4179
10°	4352	4070	4026
15°	4290	3939	3863
20°	4215	3798	3707
25°	4141	3663	3565
30°	4034	3524	3423
35°	3928	3389	3323
40°	3818	3275	3223
45°	3709	3172	3137
50°	3596	3079	3053
55°	3474	2979	2968
60°	3329	2876	2878
65°	3174	2756	2769
70°	3001	2623	2653
75°	2784	2499	2544
80°	2445	2366	2436
85°	2110	2255	2350



TEST NUMBER: P331261-935

CATALOG NUMBER: S122DIP-S290D725U935-4F0-1E-UDD-D

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	25.6	0.7
10°-20°	73.3	2.1
20°-30°	111.1	3.2
30°-40°	135.3	3.8
40°-50°	145.6	4.1
50°-60°	141.4	4.0
60°-70°	123.5	3.5
70°-80°	95.1	2.7
80°-90°	65.9	1.9
90°-100°	72.3	2.1
100°-110°	136.2	3.9
110°-120°	299.5	8.5
120°-130°	471.3	13.4
130°-140°	493.6	14.0
140°-150°	455.0	12.9
150°-160°	365.1	10.4
160°-170°	235.3	6.7
170°-180°	81.0	2.3
0°-30°	210.0	6.0
0°-40°	345.4	9.8
0°-60°	632.4	17.9
0°-90°	916.8	26.0
90°-120°	508.1	14.4
90°-150°	1927.9	54.7
90°-180°	2609.0	74.0
0°-180°	3526.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	270	270	270	270	270	
5°	271	269	267	269	269	26
15°	258	259	259	262	262	73
25°	235	237	241	245	247	108
35°	202	209	216	225	228	126
45°	166	177	190	202	206	128
55°	127	142	162	175	181	114
65°	87	106	129	145	150	86
75°	48	70	95	111	117	51
85°	14	38	63	79	85	15
90°	5	34	64	82	89	5
95°	43	43	69	86	91	51
105°	189	209	71	91	98	202
115°	356	372	404	143	90	350
125°	502	510	534	548	554	447
135°	620	630	639	653	656	479
145°	719	719	729	735	734	449
155°	791	787	793	796	792	365
165°	834	830	832	836	832	236
175°	853	849	850	854	848	81
180°	851	851	851	851	851	



TEST NUMBER: P331261-935

CATALOG NUMBER: S122DIP-S290D725U935-4F0-1E-UDD-D

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	269.9	269.9	269.9	269.9	269.9	269.9	269.9	269.9	269.9	269.9	269.9
2.5°	271.5	271.2	271.0	270.8	270.6	270.3	269.8	269.3	268.8	268.3	268.6
5°	270.7	270.4	270.2	269.9	269.6	269.2	268.7	268.2	267.7	267.2	267.7
7.5°	268.2	268.0	267.9	267.7	267.5	267.3	266.8	266.5	266.0	265.6	266.3
10°	266.4	266.2	266.0	265.9	265.7	265.4	265.2	264.9	264.7	264.4	265.1
12.5°	263.2	263.3	263.3	263.4	263.4	263.3	263.1	262.9	262.7	262.5	263.2
15°	258.1	258.3	258.5	258.6	258.8	258.9	258.9	258.9	258.9	258.9	259.7
17.5°	251.6	251.9	252.3	252.7	253.0	253.4	253.7	253.9	254.2	254.5	255.3
20°	247.2	247.6	248.1	248.5	248.9	249.3	249.7	250.0	250.4	250.7	251.7
22.5°	242.5	243.0	243.5	244.0	244.5	245.0	245.5	246.0	246.5	246.9	247.9
25°	234.7	235.3	235.9	236.5	237.1	237.8	238.6	239.4	240.1	240.9	241.9
27.5°	225.3	226.3	227.3	228.3	229.3	230.2	231.1	232.0	233.0	233.9	235.2
30°	219.0	220.2	221.3	222.4	223.5	224.7	225.8	227.0	228.1	229.2	230.6
32.5°	212.2	213.4	214.6	215.9	217.2	218.5	219.9	221.2	222.6	223.9	225.5
35°	202.2	203.7	205.2	206.6	208.1	209.7	211.4	213.0	214.6	216.3	218.2
37.5°	191.4	193.1	194.8	196.6	198.2	200.2	202.3	204.4	206.6	208.7	210.9
40°	184.3	186.1	188.0	189.9	191.8	194.0	196.3	198.7	201.0	203.4	205.6
42.5°	177.4	179.3	181.2	183.0	185.0	187.3	190.0	192.7	195.4	198.0	200.5
45°	165.8	168.2	170.6	172.9	175.2	177.9	181.0	184.0	187.0	190.1	192.8
47.5°	154.5	157.0	159.6	162.1	164.7	167.8	171.3	174.9	178.5	182.0	184.9
50°	146.7	149.4	152.1	154.7	157.5	160.7	164.7	168.6	172.5	176.4	179.3
52.5°	139.1	142.0	144.8	147.7	150.5	153.9	158.1	162.2	166.3	170.5	173.5
55°	127.1	130.3	133.4	136.5	139.7	143.4	148.0	152.5	157.0	161.5	164.7
57.5°	115.2	118.7	122.3	125.8	129.3	133.4	138.0	142.6	147.2	151.9	155.2
60°	106.8	110.6	114.3	118.0	121.7	126.1	131.0	136.0	140.9	145.9	149.2
62.5°	99.3	103.1	107.0	110.9	114.8	119.2	124.2	129.1	134.1	139.1	142.5
65°	86.8	91.1	95.3	99.6	103.8	108.6	113.7	118.8	124.0	129.1	132.7
67.5°	75.4	79.9	84.3	88.8	93.2	98.1	103.3	108.6	113.8	119.1	122.7
70°	67.2	71.8	76.3	80.8	85.3	90.3	95.7	101.1	106.5	111.8	115.6
72.5°	59.8	64.4	69.1	73.7	78.4	83.4	88.9	94.4	99.9	105.3	109.0
75°	48.1	53.0	57.9	62.7	67.6	72.8	78.4	83.9	89.5	95.1	98.8
77.5°	36.9	41.9	47.0	52.1	57.3	62.6	68.3	73.9	79.6	85.2	88.9
80°	29.4	34.6	40.0	45.2	50.5	56.1	61.6	67.3	72.9	78.6	82.2
82.5°	23.1	28.3	33.6	38.7	44.0	49.5	55.2	61.0	66.6	72.3	76.0
85°	14.1	19.5	24.9	30.2	35.6	41.1	46.7	52.3	57.8	63.4	67.0
87.5°	7.7	13.3	18.8	24.2	29.7	35.4	41.2	46.9	52.7	58.5	62.2
90°	4.6	11.1	17.7	24.2	30.7	37.3	44.0	50.6	57.3	64.0	68.1
92.5°	16.0	20.6	25.1	29.7	34.3	39.5	45.4	51.3	57.2	63.1	66.9
95°	43.1	42.7	42.3	41.8	41.4	44.3	50.5	56.7	62.9	69.0	73.0
97.5°	82.2	73.1	64.0	54.9	45.8	44.9	52.1	59.3	66.6	73.8	77.5
100°	111.8	96.3	80.7	65.2	49.6	45.5	52.6	59.8	67.0	74.2	78.5
102.5°	144.0	142.9	141.9	140.9	139.8	132.0	117.2	102.5	87.7	73.0	77.6
105°	189.2	195.8	202.4	209.1	215.7	202.6	169.7	136.9	104.1	71.2	75.8
107.5°	241.3	246.5	251.8	257.2	262.5	245.0	204.5	164.0	123.5	83.0	84.4
110°	274.4	279.1	283.6	288.3	292.8	277.5	242.2	206.9	171.6	136.3	125.4



TEST NUMBER: P331261-935

CATALOG NUMBER: S122DIP-S290D725U935-4F0-1E-UDD-D

CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	305.9	310.0	313.9	318.0	321.9	321.1	315.4	309.7	303.9	298.3	251.1
115°	355.7	359.0	362.3	365.6	368.9	374.2	381.5	388.8	396.1	403.5	342.7
117.5°	399.8	403.0	406.2	409.5	412.7	417.3	423.3	429.2	435.2	441.2	428.4
120°	432.3	434.7	437.1	439.5	441.9	446.1	452.0	458.0	463.9	469.8	473.9
122.5°	459.9	462.2	464.5	466.8	469.1	473.2	479.1	485.2	491.1	497.1	500.4
125°	501.5	503.3	505.1	506.9	508.6	512.2	517.6	523.0	528.4	533.7	537.0
127.5°	539.6	541.5	543.4	545.2	547.1	550.2	554.3	558.5	562.7	566.9	570.4
130°	563.7	565.8	567.9	570.1	572.1	574.8	578.2	581.5	584.9	588.1	591.8
132.5°	588.3	590.1	591.9	593.7	595.5	597.8	600.7	603.6	606.6	609.4	612.8
135°	620.0	622.2	624.4	626.5	628.8	630.9	633.0	635.1	637.2	639.3	642.5
137.5°	652.4	653.9	655.4	656.9	658.4	660.1	661.9	663.7	665.5	667.2	670.1
140°	673.6	674.6	675.6	676.6	677.6	679.0	680.6	682.3	684.0	685.7	688.3
142.5°	691.3	692.2	693.1	694.0	694.9	696.2	698.0	699.7	701.5	703.3	705.5
145°	718.8	718.6	718.5	718.3	718.2	719.3	721.6	723.9	726.3	728.6	730.1
147.5°	743.0	742.5	742.0	741.5	741.0	741.8	744.2	746.4	748.7	751.1	751.8
150°	758.8	757.9	756.9	756.0	754.9	755.6	757.8	759.9	762.2	764.3	765.2
152.5°	772.1	771.0	770.0	768.9	767.8	768.4	770.4	772.5	774.6	776.6	777.5
155°	791.4	790.2	788.9	787.7	786.5	786.7	788.3	790.0	791.6	793.2	794.1
157.5°	806.6	805.6	804.5	803.5	802.5	802.5	803.7	804.8	805.9	807.1	808.0
160°	815.5	814.6	813.8	813.0	812.2	812.2	813.0	813.8	814.6	815.5	816.3
162.5°	823.4	822.5	821.7	820.9	820.0	820.0	820.7	821.4	822.2	822.9	823.8
165°	834.0	833.1	832.3	831.5	830.6	830.4	830.9	831.3	831.6	832.1	833.0
167.5°	841.8	841.0	840.2	839.4	838.5	838.3	838.7	839.0	839.5	839.8	840.8
170°	846.3	845.4	844.6	843.8	843.0	842.7	843.0	843.3	843.5	843.8	844.7
172.5°	849.2	848.3	847.6	846.7	845.9	845.7	845.9	846.2	846.4	846.7	847.7
175°	853.0	852.0	851.1	850.2	849.2	848.9	849.1	849.4	849.6	850.0	850.9
177.5°	853.7	852.9	852.1	851.4	850.6	850.2	850.3	850.5	850.6	850.7	851.4
180°	851.2	851.2	851.2	851.2	851.2	851.2	851.2	851.2	851.2	851.2	851.2



TEST NUMBER: P331261-935

CATALOG NUMBER: S122DIP-S290D725U935-4F0-1E-UDD-D

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	269.9	269.9	269.9	269.9	269.9	269.9	269.9	269.9
2.5°	269.0	269.3	269.7	269.8	269.7	269.5	269.4	269.2
5°	268.2	268.7	269.2	269.4	269.3	269.2	269.1	269.1
7.5°	266.9	267.5	268.2	268.5	268.4	268.3	268.2	268.1
10°	265.8	266.5	267.2	267.5	267.4	267.3	267.3	267.2
12.5°	263.9	264.6	265.3	265.6	265.5	265.4	265.4	265.3
15°	260.5	261.3	262.1	262.4	262.3	262.3	262.2	262.1
17.5°	256.1	256.9	257.7	258.1	258.1	258.1	258.1	258.1
20°	252.6	253.6	254.5	255.0	255.0	255.0	255.0	255.0
22.5°	248.9	249.9	250.8	251.3	251.5	251.6	251.8	251.9
25°	243.1	244.1	245.1	245.7	246.0	246.2	246.5	246.8
27.5°	236.5	237.9	239.2	240.0	240.1	240.3	240.5	240.7
30°	232.0	233.4	234.8	235.6	235.8	236.1	236.3	236.6
32.5°	227.0	228.7	230.3	231.4	231.8	232.3	232.7	233.2
35°	220.2	222.1	223.9	225.2	225.8	226.4	227.0	227.6
37.5°	212.9	215.1	217.2	218.6	219.2	219.9	220.5	221.1
40°	207.9	210.2	212.4	214.0	214.7	215.5	216.3	217.1
42.5°	203.0	205.4	207.9	209.6	210.3	211.1	211.9	212.7
45°	195.4	198.2	200.9	202.7	203.5	204.4	205.3	206.1
47.5°	187.7	190.5	193.3	195.2	196.1	197.1	198.0	199.0
50°	182.3	185.3	188.2	190.2	191.1	192.1	193.0	194.0
52.5°	176.5	179.5	182.5	184.6	185.6	186.7	187.7	188.6
55°	167.8	170.9	174.1	176.2	177.3	178.5	179.6	180.7
57.5°	158.6	162.0	165.3	167.6	168.8	169.9	171.0	172.2
60°	152.5	155.8	159.1	161.4	162.6	163.8	165.1	166.3
62.5°	146.0	149.6	153.1	155.4	156.5	157.6	158.9	160.0
65°	136.2	139.7	143.4	145.7	146.8	147.9	149.0	150.2
67.5°	126.2	129.8	133.5	135.9	137.0	138.2	139.4	140.6
70°	119.3	123.0	126.8	129.2	130.3	131.3	132.3	133.4
72.5°	112.6	116.3	119.9	122.4	123.6	124.9	126.2	127.4
75°	102.5	106.2	110.0	112.4	113.6	114.7	115.8	116.9
77.5°	92.6	96.3	100.0	102.5	103.8	105.0	106.2	107.4
80°	85.9	89.5	93.2	95.7	96.9	98.1	99.3	100.5
82.5°	79.6	83.3	87.0	89.4	90.5	91.7	92.8	93.9
85°	70.7	74.3	78.0	80.4	81.6	82.8	84.0	85.2
87.5°	65.9	69.5	73.2	75.6	76.8	78.0	79.1	80.3
90°	72.2	76.5	80.6	83.3	84.6	85.9	87.3	88.6
92.5°	70.6	74.4	78.2	80.7	81.9	83.1	84.3	85.5
95°	77.0	80.9	85.0	87.4	88.3	89.2	90.1	91.0
97.5°	81.3	85.1	88.9	91.3	92.5	93.7	94.9	96.1
100°	82.8	87.1	91.4	94.2	95.5	96.7	97.9	99.2
102.5°	82.1	86.7	91.3	94.3	95.6	96.9	98.2	99.6
105°	80.3	84.8	89.4	92.4	93.9	95.4	96.9	98.4
107.5°	85.8	87.2	88.6	90.1	91.5	93.1	94.5	96.0
110°	114.5	103.6	92.7	88.0	89.5	91.0	92.6	94.0



TEST NUMBER: P331261-935

CATALOG NUMBER: S122DIP-S290D725U935-4F0-1E-UDD-D

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	203.9	156.8	109.6	86.8	88.2	89.5	90.9	92.3
115°	282.0	221.2	160.4	125.6	116.7	107.8	98.9	90.0
117.5°	415.7	402.9	390.1	368.0	336.5	305.1	273.5	242.0
120°	478.0	482.1	486.1	479.4	461.9	444.4	426.9	409.3
122.5°	503.8	507.0	510.4	510.7	508.0	505.1	502.4	499.6
125°	540.4	543.6	547.0	549.2	550.4	551.6	552.8	554.0
127.5°	574.0	577.6	581.1	583.3	584.1	585.0	585.8	586.7
130°	595.4	598.9	602.5	604.6	605.2	605.7	606.3	606.8
132.5°	616.0	619.3	622.7	624.6	625.2	625.7	626.3	626.8
135°	645.7	648.8	652.0	653.8	654.3	654.7	655.1	655.6
137.5°	673.1	676.1	679.0	680.5	680.6	680.8	680.9	681.0
140°	691.0	693.5	696.1	697.4	697.2	697.1	696.9	696.7
142.5°	707.7	710.0	712.2	713.3	713.0	712.7	712.5	712.3
145°	731.6	733.1	734.5	735.1	734.9	734.6	734.4	734.2
147.5°	752.6	753.4	754.1	754.3	754.0	753.6	753.3	752.9
150°	765.9	766.8	767.6	767.7	767.0	766.3	765.6	764.9
152.5°	778.3	779.1	780.0	779.9	779.0	778.1	777.2	776.3
155°	795.0	795.7	796.6	796.4	795.3	794.3	793.2	792.0
157.5°	808.9	809.9	810.8	810.7	809.7	808.6	807.5	806.5
160°	817.1	817.9	818.7	818.6	817.7	816.7	815.8	814.9
162.5°	824.7	825.6	826.6	826.5	825.3	824.1	822.9	821.7
165°	834.0	835.0	835.9	835.9	835.0	834.0	833.0	832.1
167.5°	841.8	842.7	843.7	843.5	842.3	841.1	839.8	838.6
170°	845.7	846.6	847.7	847.5	846.3	845.0	843.8	842.6
172.5°	848.7	849.6	850.6	850.4	849.2	848.0	846.7	845.5
175°	851.9	852.8	853.8	853.6	852.2	850.8	849.5	848.1
177.5°	852.2	853.0	853.8	853.7	852.6	851.7	850.7	849.7
180°	851.2	851.2	851.2	851.2	851.2	851.2	851.2	851.2

(END OF REPORT)