

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: P331962-935

Luminaire Tested: **S123DIP-S775D365U935-4F0-1E-UDD-F1**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P331962-935
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-9,
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S123DIP-S775D365U935-4F0-1E-UDD-F1
Description: DEFINE 3 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 775 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER
UPLIGHT 365 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3802.6 lumens
Efficiency: N/A
Efficacy: 108.6 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.18 / 1.31
Luminous Opening: Rectangular (W 0.25' x L: 4' x H: 0')
CIE Type: Semi-Direct

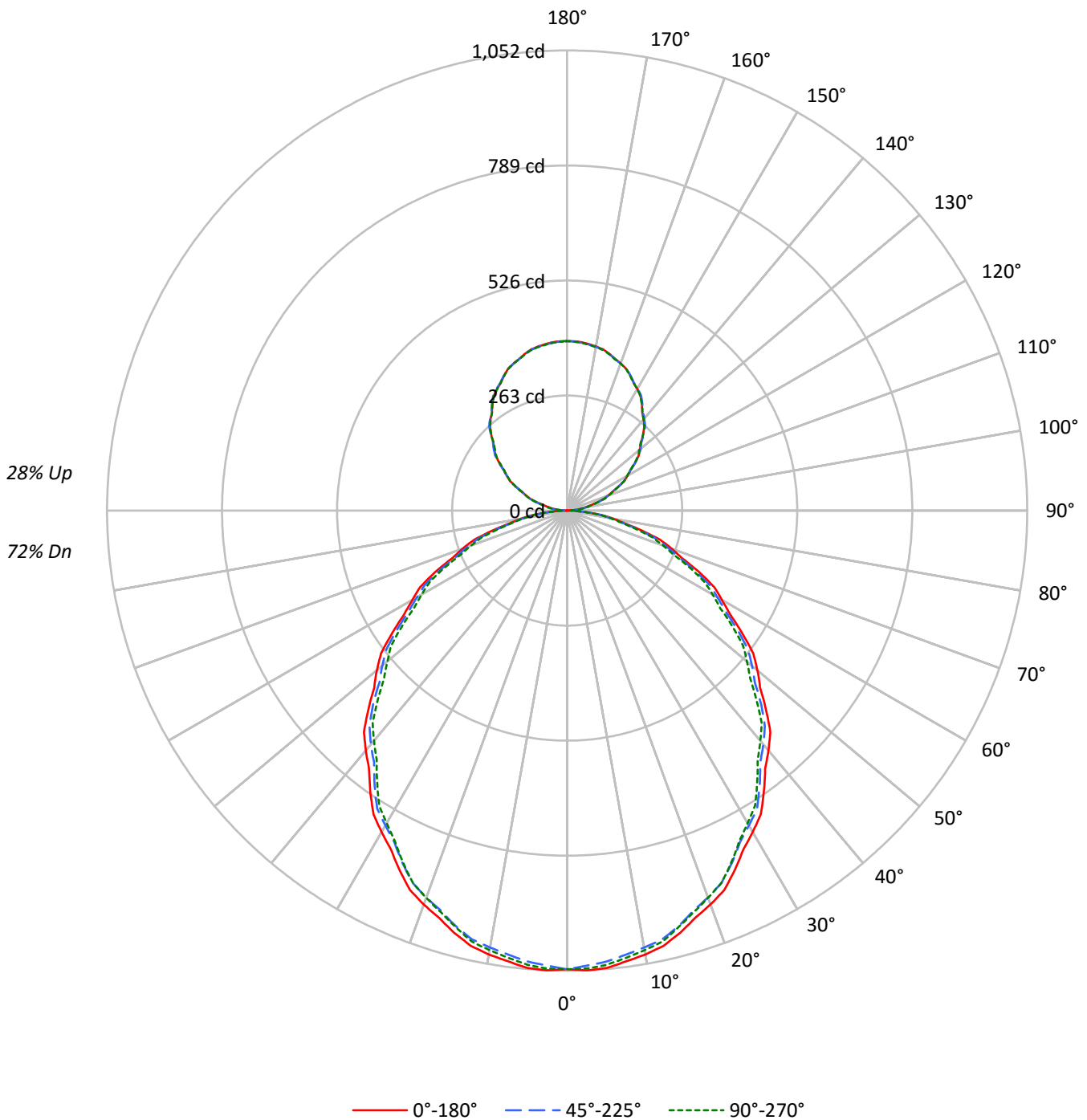
Input Watts (W): 35
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P331962-935

CATALOG NUMBER: S123DIP-S775D365U935-4F0-1E-UDD-F1

Luminous Intensity Polar Plot





TEST NUMBER: P331962-935

CATALOG NUMBER: S123DIP-S775D365U935-4F0-1E-UDD-F1

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	112	112	112	112	106	106	106	106	95	95	95	85	85	85	76	76	76	72
1	103	98	94	90	97	93	89	86	84	81	78	75	73	71	67	66	64	60
2	93	86	79	74	88	81	76	71	73	69	65	66	62	59	59	56	54	50
3	85	75	68	61	80	72	65	59	65	59	55	58	54	50	52	49	46	43
4	78	67	58	52	74	64	56	50	58	51	47	52	47	43	47	43	40	37
5	72	60	51	45	68	57	49	43	52	45	40	47	41	37	42	38	34	32
6	66	54	45	39	62	51	43	38	47	40	35	42	37	33	38	34	30	28
7	61	48	40	34	58	46	39	33	42	36	31	39	33	29	35	30	27	25
8	57	44	36	31	54	42	35	30	39	32	28	35	30	26	32	28	24	22
9	53	40	33	27	50	39	32	27	36	29	25	33	27	23	30	25	22	20
10	50	37	30	25	47	36	29	24	33	27	23	30	25	21	28	23	20	18

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	11286	11286	11286
5°	11339	11182	11261
10°	11262	11086	11154
15°	11131	10961	10981
20°	10977	10781	10791
25°	10772	10568	10546
30°	10544	10331	10253
35°	10307	10081	9950
40°	10058	9805	9653
45°	9785	9552	9319
50°	9512	9239	8982
55°	9154	8916	8646
60°	8792	8540	8269
65°	8474	8130	7875
70°	8003	7660	7320
75°	7311	7049	6750
80°	6595	6316	6261
85°	5780	5570	5348



TEST NUMBER: P331962-935

CATALOG NUMBER: S123DIP-S775D365U935-4F0-1E-UDD-F1

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	98.8	2.6
10°-20°	278.9	7.3
20°-30°	411.9	10.8
30°-40°	481.2	12.7
40°-50°	483.8	12.7
50°-60°	425.0	11.2
60°-70°	316.6	8.3
70°-80°	180.4	4.7
80°-90°	52.9	1.4
90°-100°	25.2	0.7
100°-110°	75.5	2.0
110°-120°	128.5	3.4
120°-130°	169.0	4.4
130°-140°	189.9	5.0
140°-150°	186.7	4.9
150°-160°	157.2	4.1
160°-170°	104.6	2.8
170°-180°	36.6	1.0
0°-30°	789.6	20.8
0°-40°	1270.8	33.4
0°-60°	2179.5	57.3
0°-90°	2729.4	71.8
90°-120°	229.2	6.0
90°-150°	774.8	20.4
90°-180°	1073.0	28.2
0°-180°	3802.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1048	1048	1048	1048	1048	
5°	1049	1045	1035	1043	1042	99
15°	999	995	984	990	985	281
25°	907	901	890	890	888	418
35°	784	779	767	762	757	490
45°	643	639	628	617	612	496
55°	488	486	475	466	461	437
65°	333	328	319	312	309	328
75°	176	172	170	165	162	188
85°	47	45	45	43	43	51
90°	0	3	7	8	9	4
95°	18	20	23	24	24	20
105°	68	69	72	72	72	73
115°	129	130	130	130	130	128
125°	189	190	190	188	187	169
135°	246	247	247	246	245	189
145°	298	298	299	299	298	186
155°	341	341	341	342	340	157
165°	372	371	371	372	370	105
175°	386	385	385	387	385	37
180°	387	387	387	387	387	



TEST NUMBER: P331962-935

CATALOG NUMBER: S123DIP-S775D365U935-4F0-1E-UDD-F1

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1048.5	1048.5	1048.5	1048.5	1048.5	1048.5	1048.5	1048.5	1048.5	1048.5	1048.5
2.5°	1052.1	1051.5	1050.9	1050.2	1049.6	1048.4	1046.5	1044.8	1043.0	1041.3	1042.8
5°	1049.4	1048.4	1047.4	1046.4	1045.3	1043.8	1041.6	1039.4	1037.2	1034.9	1037.0
7.5°	1039.1	1038.1	1037.1	1036.1	1035.1	1033.5	1031.1	1028.9	1026.6	1024.3	1026.1
10°	1030.4	1029.4	1028.5	1027.4	1026.5	1024.7	1022.0	1019.4	1016.8	1014.3	1016.1
12.5°	1018.9	1018.0	1017.3	1016.4	1015.5	1013.9	1011.5	1009.0	1006.6	1004.1	1005.5
15°	998.9	998.1	997.3	996.5	995.7	994.0	991.4	988.8	986.2	983.6	985.2
17.5°	975.6	974.6	973.5	972.5	971.5	969.7	967.1	964.4	961.8	959.2	960.4
20°	958.3	957.1	956.0	954.8	953.6	951.6	949.0	946.4	943.8	941.2	942.0
22.5°	938.8	937.6	936.4	935.2	934.0	932.1	929.5	927.0	924.4	921.7	922.4
25°	907.0	905.8	904.6	903.4	902.2	900.3	897.6	895.0	892.4	889.8	890.0
27.5°	872.9	871.7	870.6	869.4	868.2	866.3	863.4	860.7	857.8	855.0	855.1
30°	848.3	847.3	846.4	845.3	844.3	842.4	839.6	836.8	834.1	831.2	831.2
32.5°	823.8	822.5	821.1	819.8	818.6	816.8	814.6	812.4	810.3	808.1	807.0
35°	784.4	783.2	782.0	780.8	779.5	777.7	775.0	772.4	769.8	767.2	766.0
37.5°	743.9	742.4	740.9	739.3	737.9	735.8	733.1	730.5	727.8	725.2	723.8
40°	715.8	714.6	713.4	712.2	711.0	709.0	706.2	703.4	700.6	697.8	696.2
42.5°	687.7	686.3	684.9	683.6	682.3	680.2	677.3	674.5	671.8	668.9	667.4
45°	642.8	642.0	641.2	640.4	639.6	637.9	635.2	632.7	630.1	627.5	625.1
47.5°	598.2	597.1	595.9	594.8	593.6	591.8	589.4	586.9	584.4	582.0	579.6
50°	568.0	567.0	565.9	565.0	564.0	562.1	559.6	557.0	554.3	551.7	549.6
52.5°	536.2	535.5	534.9	534.2	533.5	531.8	529.0	526.2	523.5	520.7	518.8
55°	487.8	487.5	487.3	487.2	486.9	485.5	482.9	480.4	477.7	475.1	472.9
57.5°	441.6	440.9	440.2	439.5	438.9	437.5	435.4	433.3	431.2	429.1	427.1
60°	408.4	408.2	408.0	407.8	407.6	406.3	403.9	401.5	399.1	396.7	394.9
62.5°	378.8	378.3	377.8	377.3	376.8	375.3	372.9	370.5	368.1	365.7	363.9
65°	332.7	331.7	330.6	329.7	328.6	327.2	325.1	323.1	321.2	319.2	317.5
67.5°	283.8	282.9	282.1	281.1	280.3	279.1	277.6	276.0	274.5	273.0	271.6
70°	254.3	253.0	251.8	250.6	249.4	248.2	247.0	245.8	244.6	243.4	242.0
72.5°	223.3	222.3	221.4	220.6	219.7	218.6	217.2	215.9	214.5	213.1	211.9
75°	175.8	175.0	174.2	173.4	172.6	171.9	171.3	170.7	170.0	169.5	168.5
77.5°	133.8	133.4	132.9	132.5	132.0	131.5	130.7	130.0	129.3	128.5	127.9
80°	106.4	105.8	105.2	104.6	104.0	103.5	103.1	102.7	102.3	101.9	101.7
82.5°	79.7	79.6	79.5	79.3	79.2	79.1	79.0	79.0	78.9	78.8	78.4
85°	46.8	46.5	46.1	45.7	45.3	45.1	45.1	45.1	45.1	45.1	44.7
87.5°	18.8	18.4	18.1	17.7	17.4	17.3	17.3	17.3	17.3	17.3	17.2
90°	0.3	0.9	1.6	2.3	3.0	3.8	4.6	5.5	6.5	7.3	7.6
92.5°	7.4	7.8	8.3	8.8	9.2	9.6	10.2	10.7	11.2	11.7	11.9
95°	18.0	18.4	18.9	19.4	19.8	20.3	20.9	21.4	22.0	22.6	22.8
97.5°	31.9	32.2	32.6	33.0	33.3	33.7	34.1	34.4	34.9	35.2	35.6
100°	41.4	41.8	42.2	42.6	43.0	43.4	43.7	44.1	44.4	44.7	44.9
102.5°	52.3	52.6	52.8	53.0	53.3	53.6	54.1	54.6	55.0	55.4	55.6
105°	68.4	68.6	68.7	68.9	69.0	69.4	70.0	70.6	71.2	71.8	71.8
107.5°	87.2	87.3	87.4	87.5	87.6	87.6	87.9	88.2	88.4	88.7	88.9
110°	98.9	99.0	99.2	99.3	99.4	99.5	99.7	99.9	100.0	100.1	100.4



TEST NUMBER: P331962-935

CATALOG NUMBER: S123DIP-S775D365U935-4F0-1E-UDD-F1

CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	111.1	111.2	111.2	111.3	111.4	111.4	111.5	111.5	111.5	111.6	111.8
115°	129.3	129.5	129.8	129.9	130.1	130.2	130.0	129.9	129.8	129.6	129.7
117.5°	147.7	147.8	148.0	148.1	148.3	148.2	148.0	147.8	147.7	147.5	147.5
120°	159.1	159.5	160.0	160.3	160.7	160.7	160.5	160.1	159.8	159.5	159.4
122.5°	171.1	171.3	171.7	171.9	172.3	172.3	172.1	171.9	171.8	171.6	171.4
125°	189.2	189.4	189.7	189.9	190.1	190.1	189.9	189.9	189.7	189.6	189.2
127.5°	206.0	206.5	206.9	207.3	207.8	207.9	207.8	207.6	207.5	207.3	207.0
130°	217.2	217.7	218.3	218.9	219.4	219.6	219.4	219.2	219.0	218.8	218.5
132.5°	228.4	229.0	229.5	230.1	230.6	230.8	230.7	230.5	230.3	230.2	229.9
135°	245.6	246.0	246.3	246.8	247.2	247.4	247.3	247.2	247.1	247.1	246.8
137.5°	261.4	261.7	262.0	262.3	262.7	262.9	263.1	263.3	263.5	263.6	263.4
140°	272.3	272.7	273.0	273.4	273.7	273.9	274.0	274.0	274.1	274.1	274.1
142.5°	282.3	282.7	283.0	283.4	283.6	283.9	284.0	284.1	284.2	284.4	284.3
145°	297.9	298.0	298.2	298.3	298.4	298.6	298.8	299.0	299.2	299.4	299.4
147.5°	311.5	311.8	312.0	312.3	312.5	312.7	312.9	313.1	313.2	313.5	313.5
150°	321.0	321.2	321.2	321.4	321.6	321.7	321.8	321.9	322.1	322.2	322.2
152.5°	328.8	329.0	329.2	329.3	329.6	329.7	329.8	329.8	329.9	330.0	330.1
155°	341.1	341.1	341.1	341.1	341.1	341.1	341.2	341.2	341.3	341.4	341.6
157.5°	351.5	351.5	351.4	351.3	351.2	351.2	351.3	351.3	351.4	351.5	351.7
160°	358.1	358.0	357.8	357.7	357.6	357.5	357.5	357.5	357.5	357.5	357.8
162.5°	363.9	363.8	363.6	363.4	363.2	363.2	363.2	363.3	363.3	363.3	363.7
165°	371.5	371.3	371.1	370.9	370.7	370.6	370.6	370.6	370.6	370.6	371.0
167.5°	377.5	377.3	377.0	376.7	376.4	376.3	376.4	376.4	376.5	376.6	376.9
170°	380.9	380.6	380.4	380.1	379.9	379.7	379.7	379.7	379.7	379.7	380.2
172.5°	383.7	383.3	383.1	382.8	382.5	382.4	382.4	382.4	382.4	382.4	382.8
175°	386.4	386.2	385.9	385.6	385.4	385.2	385.2	385.2	385.2	385.2	385.6
177.5°	387.5	387.4	387.1	386.9	386.7	386.6	386.6	386.6	386.6	386.6	386.9
180°	387.4	387.4	387.4	387.4	387.4	387.4	387.4	387.4	387.4	387.4	387.4



TEST NUMBER: P331962-935

CATALOG NUMBER: S123DIP-S775D365U935-4F0-1E-UDD-F1

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	1048.5	1048.5	1048.5	1048.5	1048.5	1048.5	1048.5	1048.5
2.5°	1044.5	1046.1	1047.7	1048.4	1048.3	1048.1	1047.9	1047.8
5°	1039.0	1040.9	1043.0	1043.8	1043.4	1043.0	1042.6	1042.2
7.5°	1027.9	1029.8	1031.6	1032.3	1032.1	1031.8	1031.6	1031.4
10°	1017.9	1019.6	1021.4	1022.2	1021.7	1021.3	1021.0	1020.5
12.5°	1006.8	1008.1	1009.4	1010.0	1009.7	1009.4	1009.3	1009.0
15°	986.8	988.3	990.0	990.2	988.9	987.7	986.6	985.4
17.5°	961.5	962.6	963.7	964.1	963.6	963.2	962.8	962.3
20°	942.8	943.6	944.4	944.5	943.9	943.3	942.7	942.1
22.5°	923.0	923.7	924.3	924.2	923.5	922.7	922.0	921.2
25°	890.2	890.4	890.6	890.4	889.8	889.2	888.6	888.0
27.5°	855.3	855.5	855.7	855.3	854.6	853.9	853.1	852.3
30°	831.2	831.2	831.2	830.5	829.1	827.7	826.3	824.9
32.5°	805.9	804.8	803.7	802.7	801.9	801.2	800.4	799.7
35°	764.8	763.6	762.4	761.3	760.3	759.3	758.3	757.2
37.5°	722.3	720.8	719.5	718.4	717.7	717.1	716.4	715.8
40°	694.6	693.0	691.4	690.2	689.4	688.5	687.8	687.0
42.5°	665.7	664.1	662.5	661.3	660.6	659.7	658.9	658.1
45°	622.7	620.3	617.9	616.1	615.2	614.2	613.1	612.2
47.5°	577.3	575.0	572.6	570.9	570.1	569.2	568.3	567.4
50°	547.3	545.1	542.9	541.2	540.0	538.8	537.6	536.4
52.5°	516.9	515.1	513.2	511.7	510.5	509.3	508.1	506.9
55°	470.7	468.5	466.3	464.7	463.6	462.7	461.7	460.7
57.5°	425.2	423.3	421.3	419.7	418.5	417.4	416.2	415.1
60°	393.0	391.2	389.4	388.1	387.0	386.1	385.0	384.1
62.5°	362.1	360.2	358.4	357.2	356.5	355.9	355.2	354.5
65°	315.9	314.4	312.7	311.6	311.0	310.4	309.8	309.2
67.5°	270.2	268.8	267.3	266.2	265.4	264.6	263.7	262.9
70°	240.6	239.2	237.8	236.6	235.6	234.6	233.6	232.6
72.5°	210.6	209.4	208.2	207.2	206.7	206.2	205.7	205.2
75°	167.5	166.5	165.5	164.7	164.1	163.5	162.9	162.3
77.5°	127.2	126.5	125.8	125.5	125.5	125.5	125.5	125.5
80°	101.5	101.3	101.1	101.0	101.0	101.0	101.0	101.0
82.5°	78.1	77.7	77.3	77.1	77.0	76.8	76.6	76.5
85°	44.3	43.9	43.5	43.3	43.3	43.3	43.3	43.3
87.5°	17.1	17.0	16.9	16.9	16.9	16.9	17.0	17.0
90°	7.8	8.1	8.4	8.6	8.7	8.9	9.0	9.1
92.5°	12.1	12.3	12.6	12.7	12.6	12.5	12.4	12.3
95°	23.1	23.3	23.6	23.8	23.8	23.8	23.8	23.8
97.5°	35.8	36.2	36.5	36.6	36.6	36.6	36.5	36.5
100°	45.1	45.4	45.5	45.7	45.8	46.0	46.1	46.2
102.5°	55.9	56.1	56.2	56.3	56.3	56.3	56.2	56.2
105°	71.8	71.8	71.8	71.9	72.0	72.2	72.3	72.4
107.5°	89.1	89.3	89.5	89.6	89.5	89.5	89.4	89.3
110°	100.7	100.9	101.2	101.3	101.1	101.0	100.8	100.7



TEST NUMBER: P331962-935

CATALOG NUMBER: S123DIP-S775D365U935-4F0-1E-UDD-F1

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	112.2	112.5	112.9	113.0	113.0	113.0	112.9	112.9
115°	129.8	129.8	129.9	129.9	129.8	129.8	129.7	129.6
117.5°	147.5	147.5	147.5	147.3	147.1	147.0	146.8	146.6
120°	159.3	159.2	159.2	159.0	158.9	158.8	158.7	158.5
122.5°	171.3	171.1	170.9	170.7	170.6	170.3	170.1	170.0
125°	189.0	188.7	188.5	188.2	188.0	187.7	187.4	187.1
127.5°	206.6	206.2	205.8	205.4	205.2	204.8	204.6	204.2
130°	218.3	217.9	217.7	217.3	216.9	216.4	215.9	215.4
132.5°	229.5	229.2	228.9	228.6	228.2	227.8	227.5	227.1
135°	246.5	246.2	246.0	245.8	245.6	245.5	245.4	245.2
137.5°	263.1	262.9	262.5	262.3	262.0	261.7	261.5	261.2
140°	274.0	274.0	273.9	273.6	273.1	272.7	272.2	271.7
142.5°	284.2	284.1	284.1	283.9	283.5	283.2	282.8	282.4
145°	299.3	299.2	299.1	298.9	298.7	298.4	298.2	297.9
147.5°	313.5	313.5	313.5	313.2	312.9	312.5	312.0	311.6
150°	322.2	322.2	322.2	322.0	321.6	321.2	320.8	320.4
152.5°	330.2	330.4	330.5	330.3	329.9	329.6	329.2	328.9
155°	341.9	342.2	342.5	342.3	341.9	341.4	341.0	340.4
157.5°	352.0	352.3	352.6	352.5	352.1	351.8	351.4	351.0
160°	358.2	358.5	358.9	358.9	358.6	358.3	358.1	357.8
162.5°	364.0	364.4	364.7	364.6	364.2	363.8	363.3	362.9
165°	371.4	371.8	372.2	372.2	371.7	371.3	370.7	370.3
167.5°	377.4	377.8	378.2	378.2	377.8	377.4	376.9	376.6
170°	380.6	381.2	381.6	381.6	381.2	380.6	380.2	379.7
172.5°	383.2	383.7	384.1	384.1	383.6	383.1	382.6	382.2
175°	386.0	386.4	386.8	386.8	386.3	385.8	385.4	384.9
177.5°	387.3	387.5	387.9	387.9	387.5	387.1	386.8	386.3
180°	387.4	387.4	387.4	387.4	387.4	387.4	387.4	387.4

(END OF REPORT)