

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: P331976-935

Luminaire Tested: **S123DIP-S775D805U935-4F0-1E-UDD-D**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P331976-935
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-5,
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S123DIP-S775D805U935-4F0-1E-UDD-D
Description: DEFINE 3 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 775 LUMENS PER FOOT, DROP SATIN WHITE DIFFUSER
UPLIGHT 805 LUMENS PER FOOT, NO LENS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5546.6 lumens
Efficiency: N/A
Efficacy: 120.8 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.26 / 1.37
Luminous Opening: Rectangular w/ Sides (W: 0.25' x L: 4' x H: 0.08')
CIE Type: General Diffuse

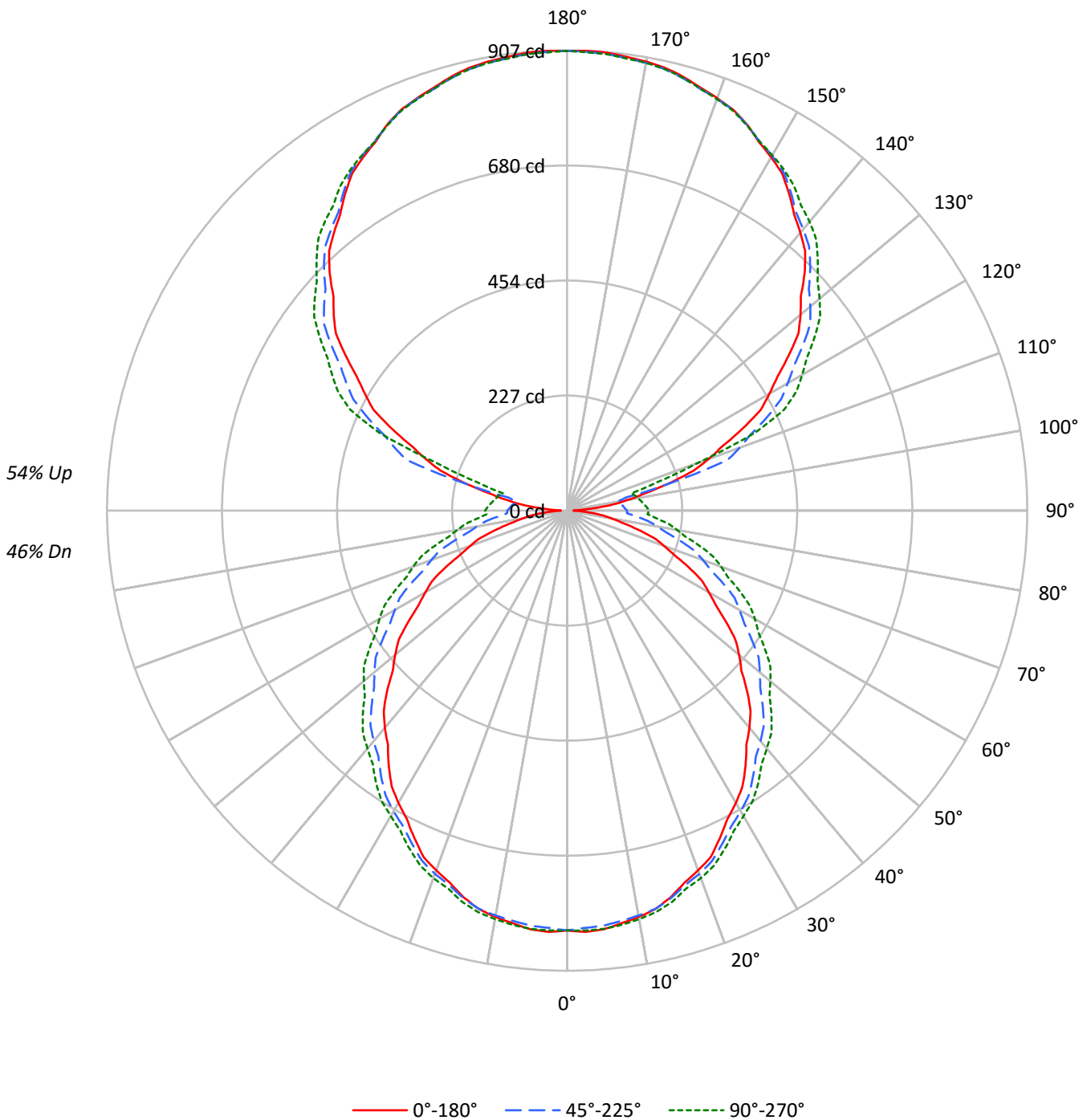
Input Watts (W): 45.9
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P331976-935

CATALOG NUMBER: S123DIP-S775D805U935-4F0-1E-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	0
RCR																		
0	106	106	106	106	97	97	97	97	81	81	81	66	66	66	52	52	52	46
1	96	91	87	83	88	84	80	77	70	67	65	57	55	53	45	44	42	37
2	87	79	73	67	79	73	67	62	60	56	53	49	46	44	39	37	35	30
3	79	69	62	55	72	64	57	51	53	48	44	43	40	36	34	32	29	25
4	72	61	53	47	66	56	49	43	47	41	37	38	34	31	30	27	25	21
5	66	54	46	40	60	50	43	37	42	36	32	34	30	27	27	24	22	18
6	61	48	40	34	55	45	37	32	38	32	28	31	27	23	25	21	19	16
7	56	44	36	30	51	40	33	28	34	28	24	28	24	20	22	19	17	14
8	52	40	32	26	48	37	30	25	31	25	21	26	21	18	21	17	15	12
9	48	36	28	23	44	33	27	22	28	23	19	23	19	16	19	16	13	11
10	45	33	26	21	41	31	24	20	26	21	17	22	18	15	18	14	12	10

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	8908	8908	8908
5°	8936	8684	8689
10°	8856	8484	8441
15°	8741	8257	8171
20°	8579	7997	7875
25°	8377	7698	7561
30°	8171	7430	7245
35°	7939	7146	6992
40°	7720	6888	6722
45°	7475	6640	6505
50°	7232	6394	6267
55°	6967	6143	6052
60°	6707	5889	5832
65°	6441	5617	5571
70°	6040	5312	5303
75°	5534	4961	5030
80°	4951	4618	4718
85°	4409	4384	4537



TEST NUMBER: P331976-935

CATALOG NUMBER: S123DIP-S775D805U935-4F0-1E-UDD-D

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	78.5	1.4
10°-20°	223.7	4.0
20°-30°	334.5	6.0
30°-40°	399.5	7.2
40°-50°	418.0	7.5
50°-60°	392.2	7.1
60°-70°	327.6	5.9
70°-80°	234.4	4.2
80°-90°	142.3	2.6
90°-100°	120.6	2.2
100°-110°	221.4	4.0
110°-120°	420.1	7.6
120°-130°	504.8	9.1
130°-140°	524.1	9.4
140°-150°	482.1	8.7
150°-160°	387.0	7.0
160°-170°	249.8	4.5
170°-180°	86.1	1.6
0°-30°	636.6	11.5
0°-40°	1036.1	18.7
0°-60°	1846.2	33.3
0°-90°	2550.5	46.0
90°-120°	762.2	13.7
90°-150°	2273.3	41.0
90°-180°	2996.0	54.0
0°-180°	5546.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	828	828	828	828	828	
5°	828	826	821	828	828	79
15°	789	791	791	799	799	222
25°	712	721	724	735	736	328
35°	613	627	639	652	656	383
45°	501	523	545	562	570	386
55°	382	412	444	468	476	342
65°	264	300	339	365	375	261
75°	143	186	231	260	271	153
85°	44	89	137	166	177	46
90°	12	64	118	150	162	10
95°	51	61	110	141	152	58
105°	208	234	215	127	131	220
115°	381	397	434	461	472	376
125°	533	540	567	587	595	476
135°	662	666	678	695	699	510
145°	763	767	768	776	780	477
155°	839	838	839	842	838	387
165°	885	883	882	887	883	250
175°	906	903	903	907	903	86
180°	906	906	906	906	906	



TEST NUMBER: P331976-935

CATALOG NUMBER: S123DIP-S775D805U935-4F0-1E-UDD-D

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	827.6	827.6	827.6	827.6	827.6	827.6	827.6	827.6	827.6	827.6	827.6
2.5°	831.2	830.7	830.3	829.7	829.3	828.4	827.2	825.9	824.6	823.3	824.6
5°	828.5	828.1	827.7	827.3	826.9	826.1	824.9	823.7	822.5	821.3	822.9
7.5°	820.4	820.4	820.5	820.6	820.7	820.2	819.0	817.9	816.7	815.5	817.5
10°	813.2	813.6	814.0	814.4	814.8	814.5	813.5	812.5	811.5	810.5	812.5
12.5°	804.5	805.1	805.6	806.2	806.8	806.8	806.1	805.4	804.7	804.0	805.8
15°	788.8	789.5	790.1	790.7	791.3	791.4	791.3	791.1	790.8	790.7	792.6
17.5°	769.0	770.3	771.5	772.6	773.8	774.4	774.3	774.2	774.1	774.0	775.8
20°	754.6	755.8	757.0	758.2	759.4	760.2	760.6	761.0	761.4	761.8	763.6
22.5°	739.4	740.6	741.8	743.0	744.2	745.1	745.7	746.2	746.8	747.3	749.7
25°	712.2	714.2	716.2	718.2	720.2	721.5	722.1	722.7	723.3	723.9	726.5
27.5°	684.8	687.1	689.4	691.6	694.0	695.7	697.0	698.3	699.6	700.9	703.1
30°	665.3	668.0	670.5	673.1	675.7	677.9	679.4	681.1	682.7	684.2	686.6
32.5°	643.7	646.6	649.5	652.5	655.4	657.9	660.0	662.1	664.2	666.2	668.8
35°	613.0	616.2	619.5	622.7	625.9	628.8	631.4	634.0	636.6	639.2	642.2
37.5°	580.6	584.2	587.8	591.4	595.0	598.4	601.7	604.9	608.0	611.2	614.7
40°	559.0	562.6	566.2	569.8	573.3	577.2	581.2	585.2	589.2	593.2	596.6
42.5°	535.1	539.6	544.0	548.4	552.8	557.1	561.2	565.4	569.6	573.8	577.5
45°	501.3	506.1	510.8	515.7	520.5	525.4	530.4	535.4	540.4	545.4	549.2
47.5°	465.7	471.2	476.6	482.1	487.5	493.1	498.9	504.5	510.3	516.0	520.3
50°	442.6	448.2	453.8	459.5	465.1	471.0	477.3	483.5	489.7	495.8	500.4
52.5°	418.1	424.0	430.0	435.9	441.9	448.2	455.1	461.9	468.8	475.6	480.4
55°	382.3	388.8	395.5	402.1	408.7	415.6	422.8	430.1	437.2	444.4	449.9
57.5°	347.2	354.1	361.0	367.9	374.9	382.2	390.1	398.0	405.9	413.8	419.2
60°	322.8	329.9	337.2	344.4	351.6	359.3	367.6	375.7	383.9	392.2	397.8
62.5°	299.6	307.0	314.4	321.8	329.2	337.2	345.9	354.6	363.3	372.0	377.5
65°	264.2	272.0	279.7	287.6	295.4	303.7	312.5	321.3	330.2	339.0	345.0
67.5°	228.1	236.3	244.7	253.0	261.2	269.9	278.9	287.8	296.8	305.8	312.4
70°	202.9	211.5	220.1	228.7	237.3	246.4	256.1	265.6	275.3	284.9	291.3
72.5°	179.8	188.4	197.0	205.6	214.2	223.5	233.4	243.4	253.3	263.2	269.8
75°	143.4	152.7	162.2	171.6	181.0	190.7	200.7	210.8	220.8	230.8	237.4
77.5°	111.6	121.1	130.6	140.1	149.6	159.4	169.5	179.6	189.7	199.8	206.7
80°	89.3	99.1	108.9	118.7	128.5	138.6	149.0	159.5	169.9	180.3	187.1
82.5°	69.7	79.7	89.7	99.7	109.7	119.9	130.5	141.1	151.7	162.3	169.1
85°	44.2	54.2	64.2	74.2	84.2	94.5	105.2	115.8	126.4	137.1	143.9
87.5°	24.1	34.4	44.7	54.9	65.2	75.7	86.3	96.9	107.5	118.1	125.0
90°	12.4	23.7	35.0	46.3	57.6	69.4	81.5	93.7	105.9	118.0	125.4
92.5°	23.5	31.9	40.4	48.8	57.3	67.2	78.8	90.3	101.8	113.3	121.0
95°	51.0	52.7	54.3	56.1	57.7	64.2	75.8	87.2	98.7	110.1	117.4
97.5°	91.4	95.7	100.0	104.3	108.6	110.0	108.7	107.2	105.8	104.4	111.6
100°	121.8	131.3	140.7	150.1	159.5	157.1	143.0	128.9	114.8	100.7	107.6
102.5°	156.7	164.6	172.5	180.5	188.4	184.2	167.7	151.3	134.8	118.4	120.4
105°	207.8	214.2	220.7	227.1	233.6	234.5	229.5	224.7	219.9	215.0	194.2
107.5°	260.9	266.2	271.6	277.1	282.5	290.3	300.6	310.9	321.2	331.5	317.5
110°	296.2	301.0	305.8	310.6	315.4	322.6	332.3	342.0	351.6	361.3	361.5



TEST NUMBER: P331976-935

CATALOG NUMBER: S123DIP-S775D805U935-4F0-1E-UDD-D

CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	330.6	334.7	338.7	342.8	346.8	353.5	362.8	372.2	381.5	390.9	396.0
115°	380.8	384.1	387.4	390.7	394.0	399.9	408.5	417.1	425.6	434.1	440.5
117.5°	430.0	432.6	435.1	437.8	440.4	445.4	452.9	460.3	467.8	475.3	481.2
120°	459.9	462.4	464.7	467.0	469.4	474.1	481.1	488.2	495.2	502.3	508.2
122.5°	491.2	492.8	494.5	496.1	497.7	502.0	508.9	515.7	522.5	529.4	534.7
125°	533.1	534.3	535.5	536.7	538.0	541.7	548.1	554.6	560.9	567.3	571.9
127.5°	574.6	575.6	576.6	577.6	578.6	581.9	587.4	592.9	598.4	603.9	608.4
130°	600.5	601.4	602.4	603.4	604.4	607.3	611.8	616.5	621.0	625.7	630.1
132.5°	624.5	625.7	626.8	627.9	629.1	631.5	635.2	638.9	642.6	646.3	650.5
135°	662.1	662.8	663.6	664.3	665.0	666.7	669.5	672.3	675.1	677.9	681.9
137.5°	694.3	695.3	696.2	697.2	698.2	699.5	701.0	702.6	704.1	705.8	709.6
140°	715.1	716.0	716.9	717.8	718.7	719.6	720.7	721.8	722.8	723.8	727.5
142.5°	735.0	735.7	736.5	737.2	738.0	738.7	739.2	739.8	740.3	740.9	744.1
145°	762.8	763.7	764.6	765.4	766.3	766.8	767.2	767.4	767.8	768.0	769.9
147.5°	788.2	788.9	789.6	790.3	791.0	791.5	791.8	792.0	792.4	792.6	793.4
150°	804.3	804.9	805.3	805.7	806.2	806.6	806.8	807.2	807.4	807.8	808.0
152.5°	818.9	819.2	819.3	819.6	819.8	819.9	820.1	820.3	820.5	820.7	821.2
155°	839.4	839.1	838.8	838.5	838.2	838.1	838.3	838.4	838.5	838.7	839.5
157.5°	855.2	855.2	855.2	855.1	855.1	855.1	854.9	854.8	854.6	854.5	855.4
160°	865.0	864.8	864.7	864.5	864.4	864.2	864.1	863.9	863.8	863.6	864.5
162.5°	874.1	873.7	873.3	873.0	872.5	872.3	872.1	872.0	871.8	871.7	872.7
165°	885.2	884.7	884.2	883.8	883.4	883.0	883.0	882.8	882.6	882.4	883.6
167.5°	893.8	893.2	892.6	892.0	891.4	891.0	891.0	891.0	891.0	891.0	892.3
170°	898.6	898.0	897.4	896.8	896.2	896.0	896.0	896.0	896.0	896.0	897.2
172.5°	901.8	901.1	900.4	899.7	899.0	898.7	898.8	898.9	899.1	899.1	900.3
175°	906.0	905.3	904.6	903.8	903.0	902.8	902.8	903.0	903.2	903.4	904.4
177.5°	907.1	906.5	905.9	905.3	904.7	904.5	904.6	904.7	904.8	904.9	905.9
180°	906.0	906.0	906.0	906.0	906.0	906.0	906.0	906.0	906.0	906.0	906.0



TEST NUMBER: P331976-935

CATALOG NUMBER: S123DIP-S775D805U935-4F0-1E-UDD-D

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	827.6	827.6	827.6	827.6	827.6	827.6	827.6	827.6
2.5°	825.9	827.2	828.4	829.0	828.8	828.6	828.5	828.4
5°	824.5	826.1	827.7	828.4	828.2	828.0	827.9	827.6
7.5°	819.5	821.6	823.5	824.4	824.1	824.0	823.7	823.5
10°	814.5	816.5	818.5	819.3	818.9	818.5	818.1	817.7
12.5°	807.7	809.5	811.3	812.1	811.7	811.3	810.9	810.5
15°	794.6	796.7	798.7	799.5	799.4	799.2	798.9	798.7
17.5°	777.7	779.5	781.3	782.0	781.8	781.4	781.2	780.9
20°	765.4	767.2	769.0	770.0	770.3	770.4	770.6	770.9
22.5°	751.9	754.2	756.5	757.6	757.5	757.3	757.2	757.1
25°	729.2	731.8	734.3	735.6	735.6	735.6	735.6	735.6
27.5°	705.3	707.6	709.8	711.0	711.2	711.4	711.5	711.7
30°	689.1	691.5	693.9	695.1	695.1	695.1	695.1	695.1
32.5°	671.3	673.9	676.5	678.0	678.5	679.0	679.4	679.9
35°	645.2	648.2	651.2	653.2	653.9	654.7	655.5	656.3
37.5°	618.0	621.5	624.8	626.9	627.5	628.2	628.8	629.5
40°	600.0	603.4	606.8	608.9	609.8	610.5	611.3	612.2
42.5°	581.2	584.9	588.7	591.1	592.2	593.3	594.4	595.6
45°	553.0	556.8	560.7	563.4	565.0	566.5	568.2	569.8
47.5°	524.6	528.9	533.2	536.0	537.2	538.5	539.7	540.9
50°	505.1	509.6	514.3	517.3	518.7	520.0	521.5	522.9
52.5°	485.2	490.0	494.7	498.0	499.7	501.4	503.2	504.9
55°	455.3	460.7	466.1	469.6	471.2	472.8	474.4	476.0
57.5°	424.7	430.2	435.6	439.3	441.2	443.1	444.9	446.8
60°	403.4	409.0	414.6	418.5	420.7	422.9	425.2	427.3
62.5°	383.2	388.8	394.4	398.2	400.3	402.3	404.4	406.4
65°	351.0	357.0	363.0	367.0	369.0	371.0	373.1	375.1
67.5°	318.9	325.5	332.1	336.2	337.9	339.6	341.3	342.9
70°	297.7	304.1	310.6	314.7	316.8	318.7	320.7	322.8
72.5°	276.4	282.9	289.6	293.9	295.8	297.8	299.8	301.9
75°	244.0	250.6	257.3	261.7	264.2	266.6	269.0	271.4
77.5°	213.7	220.7	227.6	232.0	233.9	235.7	237.6	239.4
80°	193.9	200.7	207.6	212.0	214.0	215.9	218.0	220.0
82.5°	175.9	182.7	189.5	193.9	196.0	197.9	199.9	201.9
85°	150.7	157.5	164.3	168.7	170.7	172.7	174.7	176.7
87.5°	132.0	138.9	145.9	150.3	152.4	154.5	156.5	158.6
90°	132.9	140.3	147.7	152.5	154.8	157.1	159.5	161.7
92.5°	128.5	136.1	143.8	148.6	150.6	152.7	154.6	156.7
95°	124.7	131.9	139.1	143.8	145.8	147.7	149.8	151.8
97.5°	118.7	126.0	133.1	137.8	139.9	142.1	144.2	146.4
100°	114.7	121.7	128.6	133.3	135.4	137.6	139.7	141.9
102.5°	122.3	124.2	126.1	128.3	130.5	132.9	135.1	137.3
105°	173.3	152.4	131.6	122.2	124.2	126.4	128.5	130.6
107.5°	303.4	289.4	275.3	259.2	241.0	222.8	204.6	186.4
110°	361.8	362.1	362.4	352.6	332.9	313.1	293.3	273.5



TEST NUMBER: P331976-935

CATALOG NUMBER: S123DIP-S775D805U935-4F0-1E-UDD-D

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	401.1	406.3	411.5	412.6	409.8	407.1	404.3	401.6
115°	446.8	453.1	459.3	463.6	465.8	468.0	470.2	472.4
117.5°	487.2	493.1	499.1	502.9	504.6	506.3	508.0	509.6
120°	513.9	519.7	525.6	529.2	530.5	531.9	533.4	534.8
122.5°	540.0	545.3	550.5	554.0	555.5	557.0	558.5	560.1
125°	576.4	580.8	585.4	588.5	590.2	591.9	593.6	595.3
127.5°	612.9	617.3	621.7	624.5	625.5	626.6	627.7	628.7
130°	634.5	638.9	643.3	645.9	646.8	647.7	648.6	649.5
132.5°	654.8	659.0	663.2	665.8	666.8	667.7	668.7	669.6
135°	686.0	690.1	694.1	696.4	697.0	697.5	698.1	698.6
137.5°	713.5	717.4	721.3	723.6	724.3	725.0	725.7	726.3
140°	731.1	734.7	738.2	740.4	741.1	741.8	742.5	743.2
142.5°	747.2	750.4	753.5	755.4	756.0	756.6	757.2	757.8
145°	771.8	773.8	775.7	777.0	777.8	778.6	779.4	780.2
147.5°	794.3	795.0	795.8	796.2	796.3	796.3	796.3	796.3
150°	808.3	808.7	808.9	809.1	809.0	809.0	808.9	808.9
152.5°	821.7	822.3	822.9	822.8	822.2	821.6	821.0	820.4
155°	840.2	840.9	841.7	841.6	840.8	839.8	839.0	838.0
157.5°	856.3	857.1	858.1	857.9	856.8	855.6	854.5	853.3
160°	865.4	866.3	867.2	867.1	866.1	865.0	864.0	863.0
162.5°	873.7	874.8	875.7	875.8	874.9	873.9	873.1	872.1
165°	884.8	886.1	887.3	887.3	886.3	885.2	884.2	883.1
167.5°	893.5	894.7	895.9	895.9	894.7	893.5	892.3	891.0
170°	898.3	899.5	900.7	900.7	899.5	898.3	897.2	896.0
172.5°	901.6	902.8	904.0	903.9	902.6	901.3	899.9	898.6
175°	905.4	906.5	907.5	907.4	906.3	905.1	903.9	902.7
177.5°	906.9	907.8	908.8	908.7	907.5	906.3	905.1	903.9
180°	906.0	906.0	906.0	906.0	906.0	906.0	906.0	906.0

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