

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: P331986-940

Luminaire Tested: **S123DIP-S775D1025U940-4F0-1E-UDD-D1**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P331986-940
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-S775D1025U940-4F0-1E-UDD-D1
Description: DEFINE 3 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 775 LUMENS PER FOOT, DROP SATIN WHITE DIFFUSER
UPLIGHT 1025 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6023.1 lumens
Efficiency: N/A
Efficacy: 115.8 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

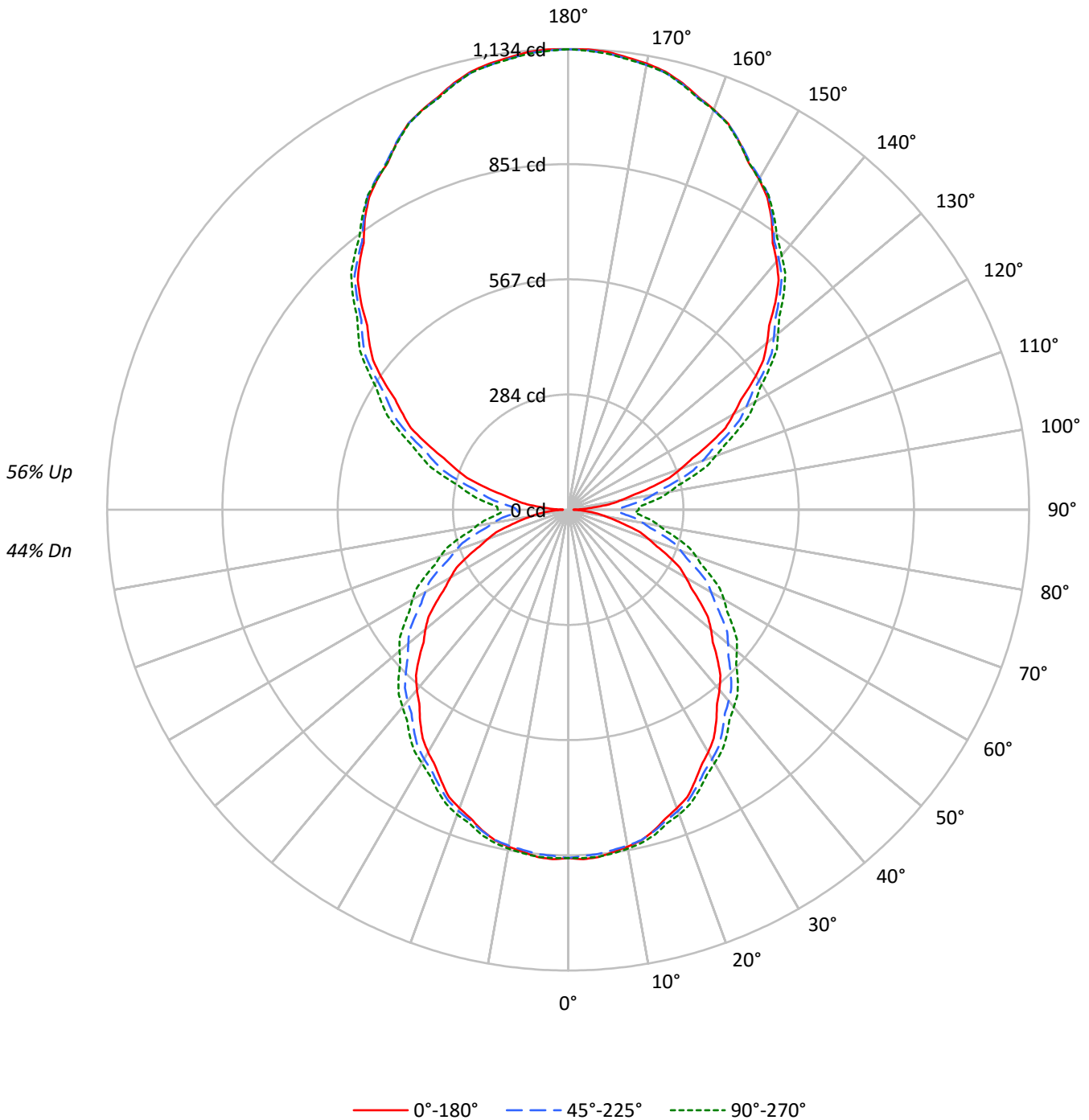
Input Watts (W): 52
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	80	80	80		65	65	65		50	50	50	44
1	95	91	87	83	87	83	79	76	69	66	64		55	54	52		43	42	41	35
2	87	79	72	67	79	72	66	62	60	55	52		48	45	43		37	35	34	29
3	79	69	61	55	72	63	56	51	52	47	43		42	39	36		33	30	28	24
4	72	61	53	46	65	56	49	43	46	41	37		37	33	30		29	26	24	20
5	66	54	46	40	60	50	42	37	41	36	31		33	29	26		26	23	21	17
6	61	48	40	34	55	44	37	32	37	31	27		30	26	23		24	21	18	15
7	56	43	35	30	51	40	33	28	33	28	24		27	23	20		22	18	16	13
8	52	39	32	26	47	36	29	24	30	25	21		25	21	18		20	17	14	12
9	48	36	28	23	44	33	26	22	28	22	19		23	19	16		18	15	13	11
10	45	33	26	21	41	30	24	19	26	20	17		21	17	14		17	14	12	10

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	9226	9226	9226
5°	9255	8994	8999
10°	9172	8787	8743
15°	9054	8552	8462
20°	8884	8283	8155
25°	8676	7974	7832
30°	8462	7695	7504
35°	8223	7401	7242
40°	7995	7134	6961
45°	7742	6877	6737
50°	7490	6622	6490
55°	7215	6363	6268
60°	6946	6099	6041
65°	6670	5818	5769
70°	6254	5502	5492
75°	5730	5140	5210
80°	5128	4782	4885
85°	4559	4540	4699



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	81.3	1.3
10°-20°	231.6	3.8
20°-30°	346.4	5.8
30°-40°	413.7	6.9
40°-50°	432.9	7.2
50°-60°	406.2	6.7
60°-70°	339.3	5.6
70°-80°	242.7	4.0
80°-90°	148.1	2.5
90°-100°	164.6	2.7
100°-110°	287.7	4.8
110°-120°	420.4	7.0
120°-130°	519.8	8.6
130°-140°	567.0	9.4
140°-150°	548.6	9.1
150°-160°	459.8	7.6
160°-170°	306.0	5.1
170°-180°	107.2	1.8
0°-30°	659.3	10.9
0°-40°	1073.0	17.8
0°-60°	1912.1	31.7
0°-90°	2642.2	43.9
90°-120°	872.7	14.5
90°-150°	2508.0	41.6
90°-180°	3381.0	56.1
0°-180°	6023.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	857	857	857	857	857	
5°	858	856	851	858	857	81
15°	817	820	819	828	827	230
25°	738	747	750	761	762	340
35°	635	650	662	675	680	397
45°	519	542	565	582	590	400
55°	396	427	460	484	493	354
65°	274	310	351	378	388	270
75°	148	192	239	269	281	159
85°	46	93	142	172	183	48
90°	13	68	127	161	173	12
95°	63	106	158	190	200	67
105°	208	233	280	305	316	222
115°	383	398	429	451	458	379
125°	556	560	584	600	603	496
135°	720	725	734	747	750	555
145°	872	873	876	882	883	544
155°	998	998	999	1002	996	459
165°	1087	1084	1084	1089	1083	306
175°	1130	1127	1127	1132	1126	107
180°	1133	1133	1133	1133	1133	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	857.1	857.1	857.1	857.1	857.1	857.1	857.1	857.1	857.1	857.1	857.1
2.5°	860.9	860.3	859.9	859.3	858.9	857.9	856.7	855.3	854.0	852.7	854.0
5°	858.1	857.6	857.2	856.8	856.4	855.6	854.3	853.1	851.9	850.6	852.3
7.5°	849.6	849.7	849.8	849.9	850.0	849.4	848.2	847.0	845.8	844.6	846.7
10°	842.2	842.6	843.0	843.5	843.8	843.6	842.5	841.5	840.4	839.4	841.5
12.5°	833.2	833.8	834.4	835.0	835.5	835.5	834.8	834.1	833.4	832.7	834.6
15°	817.0	817.6	818.2	818.9	819.5	819.7	819.5	819.3	819.0	818.9	820.9
17.5°	796.5	797.7	799.0	800.1	801.4	802.0	801.9	801.8	801.7	801.6	803.5
20°	781.5	782.7	784.0	785.2	786.5	787.3	787.7	788.2	788.5	789.0	790.9
22.5°	765.8	767.0	768.3	769.5	770.8	771.7	772.3	772.8	773.5	774.0	776.4
25°	737.6	739.7	741.7	743.9	745.9	747.3	747.9	748.5	749.1	749.8	752.4
27.5°	709.3	711.6	714.0	716.3	718.7	720.5	721.8	723.2	724.5	725.9	728.2
30°	689.0	691.8	694.5	697.1	699.8	702.0	703.6	705.3	707.0	708.6	711.1
32.5°	666.6	669.7	672.7	675.7	678.8	681.4	683.5	685.7	687.9	690.0	692.7
35°	634.9	638.2	641.6	644.9	648.2	651.2	653.9	656.6	659.3	662.0	665.1
37.5°	601.3	605.0	608.8	612.5	616.3	619.7	623.1	626.4	629.7	633.0	636.6
40°	578.9	582.6	586.4	590.1	593.8	597.8	601.9	606.1	610.2	614.4	617.9
42.5°	554.2	558.8	563.4	567.9	572.5	576.9	581.2	585.6	589.9	594.2	598.1
45°	519.2	524.1	529.1	534.0	539.0	544.1	549.3	554.5	559.7	564.9	568.8
47.5°	482.3	488.0	493.7	499.3	504.9	510.7	516.7	522.5	528.5	534.4	538.9
50°	458.4	464.2	470.0	475.9	481.7	487.8	494.3	500.7	507.1	513.5	518.3
52.5°	433.0	439.2	445.3	451.5	457.6	464.2	471.4	478.4	485.5	492.6	497.6
55°	395.9	402.7	409.6	416.4	423.3	430.4	437.9	445.4	452.8	460.3	465.9
57.5°	359.6	366.8	373.9	381.0	388.3	395.8	404.0	412.2	420.4	428.6	434.2
60°	334.3	341.7	349.2	356.7	364.2	372.1	380.7	389.1	397.6	406.2	412.0
62.5°	310.3	318.0	325.7	333.2	340.9	349.2	358.2	367.2	376.2	385.2	391.0
65°	273.6	281.7	289.7	297.8	305.9	314.5	323.7	332.8	342.0	351.1	357.3
67.5°	236.2	244.8	253.4	262.0	270.5	279.6	288.8	298.1	307.4	316.7	323.5
70°	210.1	219.0	227.9	236.8	245.8	255.2	265.2	275.1	285.1	295.1	301.7
72.5°	186.2	195.1	204.0	212.9	221.9	231.5	241.7	252.1	262.3	272.6	279.5
75°	148.5	158.2	168.0	177.7	187.4	197.5	207.9	218.3	228.6	239.1	245.8
77.5°	115.6	125.5	135.3	145.1	154.9	165.1	175.6	186.0	196.4	206.9	214.1
80°	92.5	102.6	112.8	123.0	133.1	143.6	154.4	165.1	175.9	186.7	193.8
82.5°	72.2	82.6	92.9	103.3	113.6	124.2	135.2	146.2	157.1	168.1	175.1
85°	45.7	56.1	66.5	76.9	87.2	97.9	109.0	119.9	130.9	142.0	149.0
87.5°	25.1	35.8	46.5	57.2	67.9	78.8	90.0	101.0	112.1	123.2	130.5
90°	13.0	25.1	37.3	49.5	61.6	74.3	87.4	100.6	113.7	126.9	134.7
92.5°	32.9	43.4	53.9	64.5	75.0	86.2	98.1	109.9	121.8	133.7	141.2
95°	62.8	72.2	81.8	91.2	100.7	111.3	123.1	134.8	146.6	158.3	165.5
97.5°	102.5	110.8	119.1	127.4	135.7	145.3	156.2	167.1	177.9	188.8	195.9
100°	129.5	137.3	145.1	152.9	160.8	170.0	180.5	191.0	201.5	212.0	218.6
102.5°	160.8	167.5	174.2	180.8	187.5	196.2	206.9	217.6	228.3	238.9	245.4
105°	207.8	213.1	218.5	223.9	229.3	237.3	248.0	258.7	269.4	280.1	285.9
107.5°	261.4	265.9	270.4	274.8	279.4	286.1	295.3	304.5	313.7	322.9	329.0
110°	294.9	299.0	303.2	307.3	311.4	317.8	326.5	335.2	343.9	352.6	358.8



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	330.5	333.8	337.1	340.5	343.8	349.4	357.5	365.5	373.5	381.6	387.8
115°	383.0	386.0	389.1	392.2	395.3	400.4	407.4	414.6	421.6	428.6	433.8
117.5°	436.6	438.5	440.4	442.4	444.3	448.4	455.0	461.5	468.0	474.5	479.4
120°	469.3	471.4	473.7	475.9	478.1	482.2	488.0	493.9	499.8	505.6	510.2
122.5°	504.2	505.6	506.9	508.4	509.8	513.5	519.5	525.5	531.5	537.5	541.6
125°	556.4	557.1	557.7	558.2	558.8	562.0	567.6	573.2	578.8	584.4	588.0
127.5°	605.6	606.6	607.7	608.8	609.8	612.6	617.2	621.7	626.2	630.8	633.8
130°	638.4	639.7	641.1	642.5	643.8	646.3	649.9	653.4	657.0	660.5	663.7
132.5°	670.4	671.9	673.4	674.9	676.5	678.8	681.6	684.5	687.4	690.3	693.1
135°	720.1	721.1	722.1	723.1	724.1	725.7	727.7	729.8	731.9	734.0	736.9
137.5°	766.2	767.1	767.9	768.7	769.5	770.9	772.7	774.5	776.3	778.1	780.5
140°	797.5	798.6	799.6	800.6	801.6	802.5	803.3	804.1	804.9	805.7	808.6
142.5°	826.8	827.6	828.4	829.3	830.1	830.7	831.2	831.7	832.1	832.7	835.3
145°	872.4	872.5	872.7	872.9	873.1	873.5	874.1	874.7	875.3	875.8	877.4
147.5°	911.3	912.0	912.8	913.5	914.2	914.8	915.3	915.9	916.4	917.0	917.5
150°	939.1	939.5	939.9	940.2	940.7	941.0	941.5	941.8	942.3	942.6	942.6
152.5°	961.9	962.4	963.0	963.5	964.0	964.5	964.7	964.9	965.2	965.5	965.7
155°	997.8	997.8	997.8	997.8	997.8	997.9	998.1	998.3	998.5	998.7	999.5
157.5°	1028.4	1028.2	1028.0	1027.7	1027.5	1027.4	1027.6	1027.8	1028.0	1028.1	1028.9
160°	1047.7	1047.2	1046.9	1046.5	1046.1	1045.9	1045.9	1045.9	1045.9	1045.9	1046.9
162.5°	1064.8	1064.2	1063.6	1063.1	1062.6	1062.4	1062.5	1062.7	1062.8	1063.0	1064.0
165°	1086.8	1086.2	1085.7	1085.0	1084.5	1084.1	1084.1	1084.1	1084.1	1084.1	1085.3
167.5°	1104.5	1103.7	1102.9	1102.1	1101.3	1101.0	1101.2	1101.3	1101.4	1101.6	1102.9
170°	1114.5	1113.7	1112.9	1112.1	1111.3	1110.9	1110.9	1110.9	1110.9	1110.9	1112.2
172.5°	1122.2	1121.5	1120.7	1119.9	1119.1	1118.7	1118.7	1118.7	1118.7	1118.7	1119.9
175°	1130.4	1129.6	1128.8	1128.1	1127.3	1126.9	1126.9	1126.9	1126.9	1126.9	1128.1
177.5°	1133.8	1133.2	1132.6	1131.9	1131.3	1131.0	1131.0	1131.0	1131.0	1131.0	1131.9
180°	1133.1	1133.1	1133.1	1133.1	1133.1	1133.1	1133.1	1133.1	1133.1	1133.1	1133.1



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	857.1	857.1	857.1	857.1	857.1	857.1	857.1	857.1
2.5°	855.3	856.7	857.9	858.5	858.4	858.2	858.0	857.9
5°	853.9	855.6	857.2	857.9	857.7	857.6	857.4	857.1
7.5°	848.7	850.9	852.9	853.8	853.5	853.4	853.1	852.8
10°	843.6	845.6	847.7	848.6	848.1	847.7	847.3	846.9
12.5°	836.5	838.4	840.3	841.1	840.6	840.3	839.8	839.4
15°	823.0	825.1	827.2	828.0	827.9	827.7	827.4	827.2
17.5°	805.4	807.3	809.1	809.9	809.7	809.3	809.0	808.8
20°	792.7	794.6	796.5	797.5	797.7	797.9	798.1	798.3
22.5°	778.7	781.1	783.5	784.6	784.5	784.3	784.3	784.1
25°	755.2	757.9	760.5	761.9	761.9	761.9	761.9	761.9
27.5°	730.5	732.8	735.1	736.4	736.6	736.7	736.9	737.1
30°	713.6	716.1	718.6	719.9	719.9	719.9	719.9	719.9
32.5°	695.3	697.9	700.6	702.2	702.7	703.2	703.6	704.2
35°	668.2	671.4	674.4	676.5	677.3	678.1	678.9	679.8
37.5°	640.1	643.6	647.1	649.3	649.9	650.6	651.2	651.9
40°	621.4	624.9	628.5	630.6	631.5	632.3	633.1	634.0
42.5°	601.9	605.7	609.7	612.2	613.3	614.5	615.6	616.8
45°	572.7	576.7	580.7	583.4	585.1	586.7	588.4	590.1
47.5°	543.3	547.8	552.2	555.1	556.3	557.7	558.9	560.2
50°	523.1	527.8	532.6	535.7	537.2	538.6	540.1	541.5
52.5°	502.5	507.5	512.4	515.8	517.5	519.3	521.1	522.9
55°	471.5	477.2	482.7	486.3	488.0	489.6	491.3	493.0
57.5°	439.9	445.5	451.1	455.0	456.9	458.9	460.7	462.7
60°	417.8	423.6	429.4	433.5	435.7	438.0	440.3	442.6
62.5°	396.9	402.7	408.5	412.4	414.6	416.7	418.8	420.9
65°	363.6	369.7	375.9	380.1	382.2	384.2	386.4	388.4
67.5°	330.3	337.2	343.9	348.2	349.9	351.7	353.5	355.2
70°	308.4	315.0	321.6	325.9	328.1	330.1	332.2	334.3
72.5°	286.2	293.0	299.9	304.3	306.4	308.4	310.5	312.6
75°	252.7	259.6	266.4	271.1	273.6	276.1	278.6	281.1
77.5°	221.3	228.5	235.8	240.3	242.3	244.2	246.1	248.0
80°	200.8	207.9	215.0	219.5	221.6	223.6	225.8	227.8
82.5°	182.2	189.2	196.3	200.8	203.0	205.0	207.1	209.1
85°	156.0	163.1	170.1	174.7	176.7	178.9	180.9	183.0
87.5°	137.7	144.9	152.0	156.8	158.9	161.0	163.2	165.4
90°	142.6	150.4	158.3	163.5	165.9	168.4	170.9	173.3
92.5°	148.7	156.3	163.8	168.4	170.0	171.7	173.4	175.0
95°	172.7	179.9	187.2	191.8	193.9	196.0	198.0	200.2
97.5°	203.0	210.1	217.1	221.7	223.7	225.7	227.7	229.7
100°	225.3	231.9	238.5	243.1	245.5	248.0	250.5	253.0
102.5°	251.8	258.2	264.7	268.9	270.9	273.0	274.9	276.9
105°	291.7	297.6	303.4	307.4	309.6	311.9	314.1	316.4
107.5°	335.3	341.4	347.7	351.5	353.1	354.7	356.3	357.9
110°	365.0	371.1	377.4	381.0	382.4	383.6	384.9	386.1



TEST NUMBER: P331986-940

CATALOG NUMBER: S123DIP-S775D1025U940-4F0-1E-UDD-D1

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	394.0	400.1	406.3	410.3	412.0	413.8	415.5	417.2
115°	439.0	444.3	449.4	452.7	454.1	455.7	457.1	458.5
117.5°	484.3	489.2	494.1	497.0	498.1	499.2	500.2	501.3
120°	514.8	519.3	524.0	526.7	527.8	528.9	529.9	531.0
122.5°	545.7	549.7	553.8	556.3	557.2	558.1	559.1	560.0
125°	591.6	595.1	598.7	600.8	601.5	602.1	602.8	603.4
127.5°	636.8	639.8	642.8	644.5	645.1	645.6	646.0	646.6
130°	666.8	669.9	673.2	674.7	674.5	674.4	674.2	674.0
132.5°	695.9	698.7	701.6	703.1	703.5	703.8	704.2	704.5
135°	739.9	742.8	745.7	747.5	748.1	748.9	749.5	750.1
137.5°	783.0	785.4	787.9	789.3	789.5	789.8	790.1	790.4
140°	811.5	814.5	817.3	818.7	818.3	818.0	817.6	817.3
142.5°	837.9	840.4	842.9	844.3	844.2	844.2	844.2	844.1
145°	878.8	880.3	881.7	882.4	882.5	882.5	882.6	882.6
147.5°	918.0	918.5	919.0	919.0	918.6	918.1	917.7	917.2
150°	942.6	942.6	942.6	942.3	941.5	940.7	940.0	939.1
152.5°	966.1	966.3	966.7	966.3	965.5	964.5	963.5	962.6
155°	1000.3	1001.1	1001.8	1001.6	1000.2	998.8	997.4	996.0
157.5°	1029.7	1030.6	1031.4	1031.3	1030.2	1029.0	1028.0	1026.8
160°	1047.8	1048.8	1049.8	1049.9	1049.2	1048.4	1047.6	1046.8
162.5°	1065.0	1066.0	1066.9	1066.8	1065.5	1064.3	1063.0	1061.8
165°	1086.5	1087.7	1088.9	1088.8	1087.4	1086.0	1084.7	1083.3
167.5°	1104.0	1105.3	1106.5	1106.5	1105.3	1104.0	1102.9	1101.6
170°	1113.7	1115.0	1116.4	1116.4	1115.0	1113.7	1112.2	1110.9
172.5°	1121.1	1122.4	1123.6	1123.6	1122.1	1120.8	1119.4	1117.9
175°	1129.3	1130.4	1131.7	1131.5	1130.2	1128.7	1127.4	1126.0
177.5°	1132.9	1133.8	1134.8	1134.7	1133.6	1132.5	1131.4	1130.2
180°	1133.1	1133.1	1133.1	1133.1	1133.1	1133.1	1133.1	1133.1

(END OF REPORT)