

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: P331959-927

Luminaire Tested: **S123DIP-S775D365U927-4F0-1E-UDD-D1**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P331959-927
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-S775D365U927-4F0-1E-UDD-D1
Description: DEFINE 3 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 775 LUMENS PER FOOT, DROP 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: 3547.2 lumens
Efficiency: N/A
Efficacy: 101.3 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: Semi-Direct

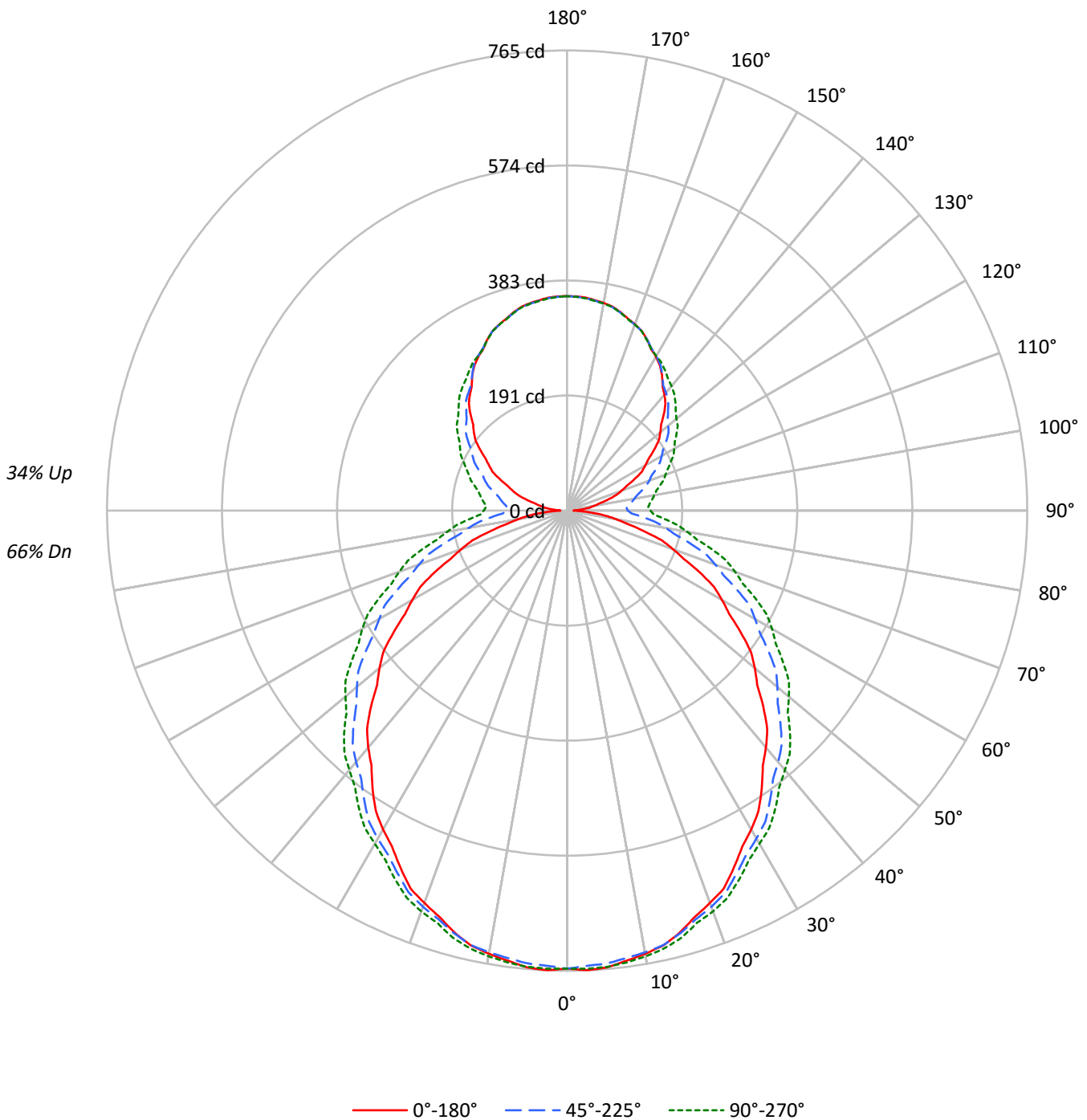
Input Watts (W): 35
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P331959-927

CATALOG NUMBER: S123DIP-S775D365U927-4F0-1E-UDD-D1

Luminous Intensity Polar Plot





TEST NUMBER: P331959-927

CATALOG NUMBER: S123DIP-S775D365U927-4F0-1E-UDD-D1

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	111	111	111	111	104	104	104	104	92	92	92	81	81	81	71	71	71	66
1	100	95	90	86	94	89	85	82	79	76	73	69	67	65	61	59	57	53
2	91	82	75	69	85	77	71	66	68	64	59	60	56	53	52	50	47	43
3	82	72	64	57	77	68	60	55	60	54	49	53	48	44	46	43	39	36
4	75	63	55	48	70	60	52	46	53	47	42	47	42	38	41	37	34	30
5	69	56	48	41	64	53	45	39	47	41	36	42	37	32	37	33	29	26
6	63	51	42	36	59	48	40	34	43	36	31	38	32	28	33	29	26	23
7	59	46	37	31	55	43	35	30	39	32	27	34	29	25	30	26	23	20
8	55	41	33	28	51	39	32	27	35	29	24	31	26	22	28	23	20	18
9	51	38	30	25	48	36	29	24	32	26	22	29	24	20	26	21	18	16
10	47	35	27	22	45	33	26	21	30	24	20	27	22	18	24	20	17	15

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	8196	8196	8196
5°	8222	7990	7994
10°	8148	7806	7766
15°	8043	7597	7518
20°	7893	7358	7245
25°	7708	7084	6957
30°	7517	6836	6666
35°	7305	6575	6434
40°	7102	6337	6184
45°	6877	6109	5986
50°	6655	5883	5766
55°	6409	5652	5569
60°	6171	5417	5366
65°	5924	5168	5126
70°	5555	4887	4879
75°	5090	4566	4628
80°	4551	4249	4341
85°	4050	4032	4175



TEST NUMBER: P331959-927

CATALOG NUMBER: S123DIP-S775D365U927-4F0-1E-UDD-D1

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	72.2	2.0
10°-20°	205.8	5.8
20°-30°	307.8	8.7
30°-40°	367.5	10.4
40°-50°	384.5	10.8
50°-60°	360.9	10.2
60°-70°	301.4	8.5
70°-80°	215.6	6.1
80°-90°	129.6	3.7
90°-100°	103.9	2.9
100°-110°	128.8	3.6
110°-120°	157.8	4.4
120°-130°	178.1	5.0
130°-140°	184.9	5.2
140°-150°	173.9	4.9
150°-160°	144.6	4.1
160°-170°	96.3	2.7
170°-180°	33.7	1.0
0°-30°	585.7	16.5
0°-40°	953.3	26.9
0°-60°	1698.6	47.9
0°-90°	2345.3	66.1
90°-120°	390.5	11.0
90°-150°	927.4	26.1
90°-180°	1202.0	33.9
0°-180°	3547.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	761	761	761	761	761	
5°	762	760	756	762	761	72
15°	726	728	728	735	735	204
25°	655	663	666	676	677	302
35°	564	577	588	600	604	353
45°	461	481	502	517	524	356
55°	352	379	409	430	438	315
65°	243	276	312	336	345	240
75°	132	171	212	239	250	141
85°	41	82	126	153	163	43
90°	11	55	100	129	139	8
95°	26	60	103	129	138	26
105°	70	91	128	151	160	74
115°	123	135	163	183	190	122
125°	177	179	201	217	222	158
135°	228	229	237	250	255	175
145°	275	275	275	282	284	171
155°	314	314	314	315	313	144
165°	342	341	341	342	341	96
175°	356	354	354	356	354	34
180°	356	356	356	356	356	



TEST NUMBER: P331959-927

CATALOG NUMBER: S123DIP-S775D365U927-4F0-1E-UDD-D1

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	761.4	761.4	761.4	761.4	761.4	761.4	761.4	761.4	761.4	761.4	761.4
2.5°	764.8	764.3	763.9	763.4	763.0	762.2	761.0	759.9	758.7	757.5	758.7
5°	762.3	761.9	761.5	761.2	760.8	760.1	759.0	757.9	756.8	755.7	757.2
7.5°	754.8	754.9	754.9	755.0	755.1	754.6	753.5	752.5	751.4	750.4	752.2
10°	748.2	748.5	748.9	749.3	749.6	749.4	748.5	747.6	746.6	745.7	747.6
12.5°	740.2	740.8	741.2	741.8	742.3	742.3	741.6	741.0	740.4	739.7	741.4
15°	725.8	726.4	726.9	727.5	728.0	728.2	728.0	727.9	727.6	727.5	729.3
17.5°	707.6	708.7	709.8	710.8	711.9	712.5	712.4	712.3	712.3	712.2	713.8
20°	694.3	695.4	696.5	697.6	698.7	699.4	699.8	700.2	700.5	700.9	702.6
22.5°	680.3	681.4	682.5	683.7	684.8	685.6	686.1	686.6	687.1	687.6	689.8
25°	655.3	657.1	658.9	660.8	662.7	663.8	664.4	665.0	665.5	666.1	668.4
27.5°	630.1	632.2	634.3	636.4	638.5	640.1	641.3	642.5	643.6	644.8	646.9
30°	612.1	614.6	617.0	619.3	621.7	623.7	625.1	626.6	628.1	629.5	631.8
32.5°	592.2	594.9	597.6	600.3	603.0	605.3	607.2	609.2	611.1	613.0	615.4
35°	564.0	567.0	570.0	572.9	575.8	578.5	580.9	583.3	585.7	588.1	590.9
37.5°	534.2	537.5	540.8	544.2	547.5	550.6	553.6	556.5	559.4	562.4	565.5
40°	514.3	517.6	520.9	524.3	527.5	531.1	534.7	538.4	542.1	545.8	548.9
42.5°	492.3	496.5	500.5	504.5	508.6	512.5	516.3	520.2	524.0	527.9	531.3
45°	461.2	465.6	470.0	474.4	478.9	483.4	488.0	492.6	497.3	501.8	505.3
47.5°	428.5	433.6	438.6	443.5	448.5	453.7	459.0	464.2	469.5	474.8	478.7
50°	407.3	412.4	417.6	422.8	427.9	433.3	439.1	444.8	450.5	456.2	460.4
52.5°	384.7	390.1	395.6	401.1	406.5	412.4	418.7	425.0	431.3	437.6	442.0
55°	351.7	357.7	363.8	369.9	376.0	382.4	389.0	395.7	402.3	408.9	413.9
57.5°	319.5	325.8	332.2	338.5	344.9	351.6	358.9	366.2	373.4	380.7	385.7
60°	297.0	303.6	310.2	316.9	323.5	330.6	338.2	345.7	353.2	360.8	366.0
62.5°	275.7	282.5	289.3	296.0	302.9	310.2	318.2	326.2	334.2	342.2	347.4
65°	243.0	250.3	257.4	264.6	271.8	279.4	287.6	295.6	303.8	311.9	317.4
67.5°	209.8	217.5	225.1	232.7	240.3	248.3	256.6	264.8	273.1	281.4	287.4
70°	186.6	194.6	202.5	210.4	218.3	226.7	235.6	244.4	253.3	262.1	268.0
72.5°	165.4	173.3	181.3	189.2	197.1	205.7	214.8	223.9	233.1	242.2	248.3
75°	131.9	140.5	149.2	157.9	166.5	175.5	184.7	193.9	203.1	212.4	218.4
77.5°	102.7	111.5	120.2	128.9	137.6	146.6	156.0	165.2	174.5	183.8	190.2
80°	82.1	91.2	100.2	109.2	118.3	127.5	137.1	146.7	156.3	165.9	172.1
82.5°	64.2	73.4	82.5	91.7	100.9	110.4	120.1	129.8	139.6	149.3	155.6
85°	40.6	49.8	59.1	68.3	77.5	87.0	96.8	106.5	116.3	126.1	132.4
87.5°	22.1	31.4	40.7	50.1	59.3	68.8	78.3	87.9	97.4	107.0	113.4
90°	11.1	20.8	30.3	40.0	49.7	59.7	69.8	80.0	90.2	100.4	106.9
92.5°	16.9	25.4	34.1	42.6	51.2	60.3	70.0	79.8	89.4	99.2	105.5
95°	25.7	33.3	40.9	48.5	56.2	64.7	74.2	83.8	93.3	102.8	108.8
97.5°	37.5	44.3	51.1	57.9	64.7	72.6	81.6	90.6	99.6	108.5	114.3
100°	45.6	51.8	58.1	64.3	70.7	78.2	87.0	95.8	104.5	113.3	118.8
102.5°	55.0	60.5	66.0	71.5	77.1	84.2	93.0	101.7	110.4	119.2	124.6
105°	69.6	74.1	78.7	83.3	87.9	94.3	102.8	111.3	119.8	128.3	133.4
107.5°	85.9	89.7	93.6	97.4	101.2	107.0	114.8	122.5	130.2	138.0	143.1
110°	95.9	99.4	102.8	106.3	109.7	115.2	122.7	130.2	137.7	145.2	150.2



TEST NUMBER: P331959-927

CATALOG NUMBER: S123DIP-S775D365U927-4F0-1E-UDD-D1

CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	107.2	110.0	112.7	115.6	118.4	123.3	130.4	137.5	144.7	151.7	156.7
115°	123.1	125.6	127.9	130.3	132.7	137.2	143.7	150.2	156.7	163.2	167.7
117.5°	139.9	141.3	142.8	144.3	145.8	149.6	155.7	161.8	167.8	173.9	178.2
120°	149.7	151.0	152.3	153.6	155.0	158.4	164.2	170.0	175.8	181.6	185.7
122.5°	160.7	161.4	162.2	163.0	163.7	166.9	172.5	178.2	183.8	189.4	193.4
125°	176.7	176.8	177.0	177.2	177.4	180.1	185.3	190.5	195.7	201.0	204.5
127.5°	192.1	192.3	192.5	192.7	192.9	195.2	199.5	203.7	208.0	212.3	215.6
130°	202.4	202.7	203.0	203.3	203.6	205.6	209.1	212.5	216.0	219.5	222.8
132.5°	212.0	212.5	212.9	213.4	213.9	215.5	218.3	221.1	223.9	226.7	229.8
135°	227.6	227.8	228.0	228.1	228.3	229.4	231.4	233.4	235.3	237.3	240.3
137.5°	241.9	242.2	242.3	242.5	242.6	243.4	244.6	246.0	247.2	248.6	251.2
140°	251.4	251.7	252.0	252.3	252.6	253.1	253.7	254.3	254.9	255.6	258.3
142.5°	260.5	260.7	260.9	261.0	261.2	261.4	261.7	261.9	262.1	262.3	264.7
145°	274.9	274.8	274.8	274.7	274.6	274.7	274.9	275.1	275.3	275.4	276.9
147.5°	286.6	286.8	287.1	287.3	287.5	287.7	287.9	288.0	288.2	288.4	288.8
150°	295.3	295.5	295.6	295.7	295.9	296.0	296.1	296.2	296.4	296.4	296.4
152.5°	302.5	302.7	302.9	303.0	303.2	303.3	303.4	303.5	303.6	303.6	303.7
155°	313.9	313.9	313.9	313.9	313.9	313.9	313.9	313.9	314.0	314.1	314.3
157.5°	323.4	323.4	323.3	323.2	323.1	323.1	323.2	323.2	323.3	323.4	323.6
160°	329.5	329.4	329.2	329.2	329.0	328.9	328.9	328.9	328.9	328.9	329.2
162.5°	334.9	334.7	334.5	334.4	334.1	334.1	334.1	334.2	334.3	334.3	334.6
165°	341.8	341.7	341.4	341.3	341.0	341.0	341.0	341.0	341.0	341.0	341.4
167.5°	347.4	347.1	346.9	346.6	346.3	346.3	346.3	346.3	346.4	346.5	346.8
170°	350.5	350.2	350.0	349.7	349.5	349.4	349.4	349.4	349.4	349.4	349.8
172.5°	353.0	352.7	352.4	352.2	352.0	351.8	351.8	351.8	351.8	351.8	352.2
175°	355.5	355.3	355.1	354.8	354.6	354.4	354.4	354.4	354.4	354.4	354.8
177.5°	356.6	356.4	356.2	356.0	355.8	355.7	355.7	355.7	355.7	355.7	356.0
180°	356.4	356.4	356.4	356.4	356.4	356.4	356.4	356.4	356.4	356.4	356.4



TEST NUMBER: P331959-927

CATALOG NUMBER: S123DIP-S775D365U927-4F0-1E-UDD-D1

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	761.4	761.4	761.4	761.4	761.4	761.4	761.4	761.4
2.5°	759.9	761.0	762.2	762.7	762.6	762.4	762.2	762.2
5°	758.6	760.1	761.5	762.2	762.0	761.8	761.7	761.4
7.5°	754.0	755.9	757.7	758.5	758.3	758.1	757.9	757.6
10°	749.4	751.2	753.0	753.8	753.4	753.0	752.7	752.3
12.5°	743.1	744.8	746.5	747.2	746.8	746.5	746.1	745.7
15°	731.1	733.0	734.8	735.6	735.5	735.3	735.1	734.9
17.5°	715.5	717.2	718.8	719.5	719.3	719.0	718.7	718.5
20°	704.3	705.9	707.6	708.4	708.7	708.8	709.0	709.2
22.5°	691.8	694.0	696.0	697.0	697.0	696.8	696.7	696.6
25°	670.9	673.3	675.7	676.8	676.8	676.8	676.8	676.8
27.5°	649.0	651.0	653.1	654.2	654.3	654.5	654.7	654.8
30°	634.0	636.2	638.4	639.5	639.5	639.5	639.5	639.5
32.5°	617.7	620.0	622.4	623.8	624.2	624.7	625.1	625.6
35°	593.7	596.4	599.1	600.9	601.7	602.4	603.1	603.9
37.5°	568.6	571.8	574.9	576.8	577.3	578.0	578.5	579.2
40°	552.1	555.2	558.3	560.2	561.0	561.7	562.4	563.2
42.5°	534.7	538.1	541.6	543.8	544.9	545.9	546.9	548.0
45°	508.8	512.3	515.9	518.3	519.8	521.3	522.8	524.3
47.5°	482.7	486.6	490.6	493.1	494.2	495.4	496.5	497.6
50°	464.7	468.9	473.2	475.9	477.2	478.5	479.8	481.1
52.5°	446.4	450.8	455.2	458.2	459.8	461.4	463.0	464.5
55°	418.9	423.9	428.8	432.1	433.6	435.0	436.5	438.0
57.5°	390.8	395.8	400.8	404.2	405.9	407.7	409.3	411.1
60°	371.1	376.3	381.4	385.1	387.1	389.1	391.2	393.2
62.5°	352.6	357.7	362.9	366.4	368.3	370.2	372.1	373.9
65°	323.0	328.4	334.0	337.7	339.5	341.4	343.3	345.1
67.5°	293.4	299.5	305.5	309.3	310.9	312.4	314.0	315.5
70°	273.9	279.8	285.7	289.5	291.4	293.3	295.1	297.0
72.5°	254.3	260.3	266.4	270.4	272.2	274.0	275.8	277.7
75°	224.5	230.6	236.7	240.8	243.0	245.3	247.5	249.7
77.5°	196.6	203.0	209.5	213.5	215.2	216.9	218.6	220.3
80°	178.4	184.7	191.0	195.0	196.9	198.7	200.6	202.4
82.5°	161.8	168.1	174.4	178.4	180.3	182.1	183.9	185.8
85°	138.6	144.9	151.1	155.2	157.0	158.9	160.7	162.6
87.5°	119.6	126.0	132.3	136.4	138.2	140.1	142.0	143.9
90°	113.5	120.0	126.5	130.8	132.7	134.7	136.7	138.6
92.5°	111.8	118.1	124.5	128.4	130.1	131.7	133.2	134.9
95°	114.8	120.7	126.7	130.6	132.5	134.3	136.1	138.0
97.5°	120.1	125.9	131.7	135.5	137.3	139.1	140.9	142.8
100°	124.4	129.9	135.5	139.2	141.2	143.1	145.1	147.0
102.5°	130.0	135.3	140.7	144.3	146.2	148.0	149.8	151.6
105°	138.6	143.8	148.9	152.4	154.2	156.0	157.7	159.5
107.5°	148.3	153.4	158.5	161.8	163.4	165.0	166.5	168.1
110°	155.3	160.3	165.3	168.6	169.9	171.3	172.6	174.0



TEST NUMBER: P331959-927

CATALOG NUMBER: S123DIP-S775D365U927-4F0-1E-UDD-D1

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	161.6	166.6	171.5	174.8	176.3	178.0	179.6	181.2
115°	172.2	176.7	181.2	184.1	185.5	187.0	188.4	189.7
117.5°	182.6	187.0	191.4	194.2	195.4	196.7	198.0	199.2
120°	189.9	194.1	198.2	200.9	202.1	203.3	204.4	205.6
122.5°	197.3	201.2	205.1	207.6	208.7	209.9	211.0	212.1
125°	208.2	211.8	215.5	217.8	218.8	219.8	220.9	222.0
127.5°	219.0	222.2	225.5	227.7	228.6	229.6	230.6	231.6
130°	226.0	229.3	232.6	234.5	235.2	235.8	236.5	237.2
132.5°	232.8	235.9	239.0	241.0	241.9	242.8	243.7	244.6
135°	243.4	246.4	249.5	251.5	252.3	253.1	253.9	254.7
137.5°	253.9	256.5	259.2	260.9	261.5	262.2	262.9	263.6
140°	260.9	263.6	266.3	268.0	268.5	268.9	269.4	269.9
142.5°	267.1	269.5	272.0	273.5	274.0	274.6	275.2	275.8
145°	278.3	279.7	281.1	282.1	282.6	283.0	283.5	284.0
147.5°	289.3	289.7	290.2	290.6	290.8	291.1	291.4	291.7
150°	296.4	296.4	296.4	296.4	296.4	296.4	296.4	296.4
152.5°	303.8	304.0	304.0	304.0	303.7	303.5	303.2	302.9
155°	314.6	314.8	315.1	315.0	314.6	314.1	313.7	313.2
157.5°	323.8	324.2	324.4	324.3	324.0	323.7	323.3	323.0
160°	329.5	329.9	330.2	330.2	329.9	329.7	329.5	329.2
162.5°	334.9	335.3	335.6	335.5	335.1	334.7	334.3	333.9
165°	341.7	342.1	342.5	342.5	342.0	341.6	341.1	340.7
167.5°	347.2	347.6	348.0	348.0	347.6	347.2	346.8	346.5
170°	350.2	350.7	351.1	351.1	350.7	350.2	349.8	349.4
172.5°	352.6	353.0	353.4	353.4	352.9	352.5	352.0	351.6
175°	355.1	355.5	355.9	355.8	355.5	355.0	354.6	354.1
177.5°	356.3	356.6	356.9	356.9	356.6	356.2	355.8	355.5
180°	356.4	356.4	356.4	356.4	356.4	356.4	356.4	356.4

(END OF REPORT)