

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: P331333-927

Luminaire Tested: **S122DIP-S675D330U927-4F0-1E-UDD-D**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P331333-927
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-S675D330U927-4F0-1E-UDD-D
Description: DEFINE 2 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 675 LUMENS PER FOOT, DROP SATIN WHITE DIFFUSER
UPLIGHT 330 LUMENS PER FOOT, NO LENS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3167.0 lumens
Efficiency: N/A
Efficacy: 90.5 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: General Diffuse

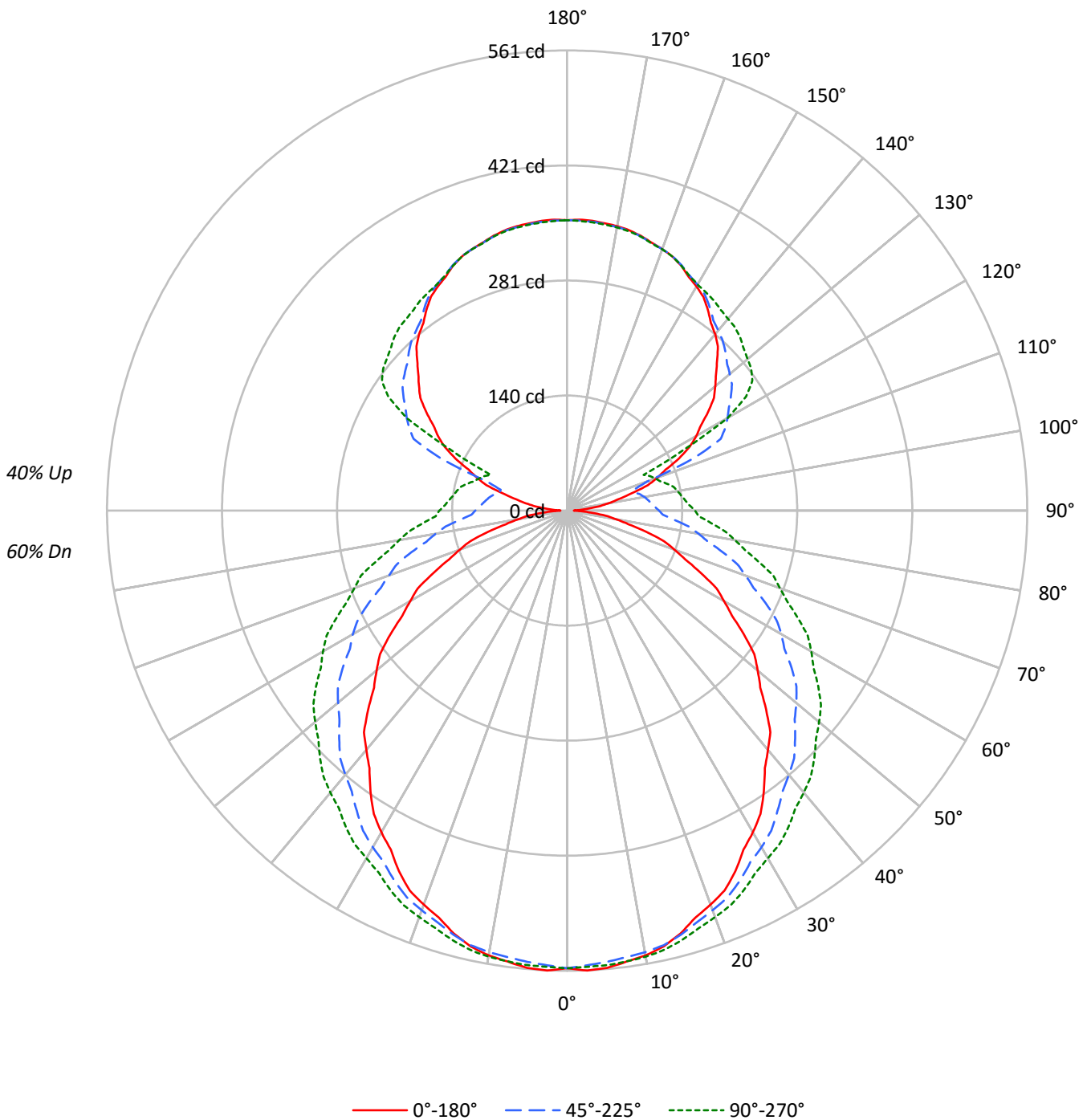
Input Watts (W): 35
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





TEST NUMBER: P331333-927

CATALOG NUMBER: S122DIP-S675D330U927-4F0-1E-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	109	109	109	109	102	102	102	102	89	89	89	76	76	76	65	65	65	60
1	98	93	88	84	91	87	83	79	75	72	69	65	62	60	55	53	51	47
2	89	80	73	67	82	75	69	63	65	60	56	56	52	49	47	44	42	38
3	80	70	62	55	75	65	58	52	57	51	46	49	44	40	41	38	35	31
4	73	62	53	46	68	58	50	44	50	44	39	43	38	34	36	33	30	26
5	67	55	46	39	62	51	43	37	45	38	33	38	33	29	33	29	25	22
6	62	49	40	34	57	46	38	32	40	34	29	35	29	26	30	25	22	19
7	57	44	36	30	53	41	34	28	36	30	25	31	26	22	27	23	20	17
8	53	40	32	26	49	38	30	25	33	27	22	29	24	20	25	21	17	15
9	49	36	29	23	46	34	27	22	30	24	20	26	21	18	23	19	16	14
10	46	33	26	21	43	32	25	20	28	22	18	24	20	16	21	17	14	12

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	9009	9009	9009
5°	9053	8672	8638
10°	8996	8417	8321
15°	8873	8146	7988
20°	8716	7854	7665
25°	8561	7573	7372
30°	8343	7286	7079
35°	8122	7007	6870
40°	7890	6771	6665
45°	7670	6558	6488
50°	7431	6366	6313
55°	7184	6161	6135
60°	6882	5948	5948
65°	6564	5697	5724
70°	6211	5427	5485
75°	5759	5163	5263
80°	5048	4895	5040
85°	4369	4658	4864



TEST NUMBER: P331333-927

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	52.9	1.7
10°-20°	151.6	4.8
20°-30°	229.8	7.3
30°-40°	279.8	8.8
40°-50°	301.1	9.5
50°-60°	292.4	9.2
60°-70°	255.3	8.1
70°-80°	196.5	6.2
80°-90°	132.8	4.2
90°-100°	102.7	3.2
100°-110°	109.7	3.5
110°-120°	159.6	5.0
120°-130°	215.5	6.8
130°-140°	213.5	6.7
140°-150°	190.6	6.0
150°-160°	151.8	4.8
160°-170°	97.8	3.1
170°-180°	33.7	1.1
0°-30°	434.3	13.7
0°-40°	714.1	22.5
0°-60°	1307.5	41.3
0°-90°	1892.1	59.7
90°-120°	371.9	11.7
90°-150°	991.5	31.3
90°-180°	1275.0	40.3
0°-180°	3167.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	558	558	558	558	558	
5°	560	557	552	557	556	53
15°	534	535	535	542	542	150
25°	485	491	498	507	510	223
35°	418	432	447	464	471	261
45°	343	365	393	417	426	265
55°	263	293	334	362	374	235
65°	180	220	267	299	310	178
75°	100	145	196	230	242	105
85°	29	79	131	164	176	31
90°	8	58	112	144	156	6
95°	23	54	103	134	144	25
105°	82	110	85	115	126	88
115°	150	165	206	117	103	148
125°	210	215	244	267	276	187
135°	258	263	273	292	298	200
145°	299	299	303	310	312	187
155°	329	327	330	331	329	152
165°	347	345	346	348	346	98
175°	355	353	354	355	353	34
180°	354	354	354	354	354	



TEST NUMBER: P331333-927

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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	558.0	558.0	558.0	558.0	558.0	558.0	558.0	558.0	558.0	558.0	558.0
2.5°	561.3	560.8	560.4	559.9	559.5	558.8	557.8	556.7	555.8	554.8	555.5
5°	559.6	559.0	558.6	558.0	557.5	556.7	555.6	554.5	553.4	552.3	553.4
7.5°	554.6	554.2	553.9	553.5	553.2	552.5	551.8	550.9	550.1	549.3	550.6
10°	550.7	550.3	550.0	549.6	549.3	548.8	548.3	547.8	547.2	546.7	548.1
12.5°	544.2	544.3	544.4	544.5	544.5	544.4	544.0	543.6	543.2	542.8	544.2
15°	533.8	534.1	534.5	534.8	535.2	535.4	535.4	535.4	535.4	535.4	536.9
17.5°	520.1	520.9	521.7	522.4	523.2	523.9	524.4	525.0	525.5	526.2	527.8
20°	511.1	512.0	512.9	513.8	514.7	515.5	516.2	517.0	517.7	518.4	520.4
22.5°	501.4	502.4	503.5	504.5	505.6	506.6	507.6	508.6	509.6	510.6	512.6
25°	485.2	486.5	487.7	489.0	490.3	491.7	493.3	495.0	496.5	498.1	500.3
27.5°	465.8	467.9	469.9	472.0	474.0	476.0	477.9	479.8	481.7	483.6	486.3
30°	452.9	455.2	457.6	459.9	462.2	464.5	466.9	469.2	471.6	473.9	476.7
32.5°	438.6	441.2	443.9	446.5	449.2	451.9	454.6	457.3	460.1	462.9	466.2
35°	418.1	421.1	424.2	427.2	430.3	433.6	437.0	440.4	443.8	447.2	451.1
37.5°	395.8	399.3	402.8	406.3	409.9	413.8	418.3	422.7	427.1	431.5	435.9
40°	380.9	384.8	388.8	392.8	396.7	401.1	406.0	410.8	415.7	420.5	425.2
42.5°	366.7	370.6	374.5	378.5	382.5	387.2	392.8	398.4	403.9	409.6	414.6
45°	342.9	347.8	352.6	357.4	362.3	367.9	374.1	380.5	386.7	393.0	398.6
47.5°	319.4	324.7	330.0	335.3	340.6	346.9	354.3	361.6	369.0	376.4	382.2
50°	303.2	308.9	314.4	320.0	325.5	332.4	340.5	348.6	356.6	364.7	370.8
52.5°	287.7	293.6	299.4	305.3	311.2	318.4	326.9	335.4	343.9	352.4	358.7
55°	262.8	269.3	275.8	282.3	288.7	296.6	305.9	315.3	324.6	334.0	340.5
57.5°	238.2	245.6	252.9	260.2	267.4	275.8	285.3	294.9	304.4	313.9	320.9
60°	220.8	228.5	236.2	244.0	251.7	260.7	270.9	281.1	291.4	301.7	308.5
62.5°	205.3	213.3	221.3	229.3	237.3	246.4	256.7	266.9	277.2	287.4	294.7
65°	179.5	188.3	197.2	206.0	214.8	224.4	235.0	245.7	256.3	266.9	274.3
67.5°	155.9	165.1	174.4	183.5	192.7	202.7	213.6	224.4	235.3	246.1	253.6
70°	139.1	148.5	157.8	167.2	176.5	186.7	197.9	209.0	220.1	231.3	239.0
72.5°	123.6	133.2	142.8	152.5	162.1	172.5	183.9	195.1	206.4	217.7	225.3
75°	99.5	109.6	119.6	129.7	139.7	150.5	162.0	173.5	185.0	196.5	204.2
77.5°	76.2	86.7	97.3	107.7	118.3	129.4	141.1	152.8	164.5	176.1	183.9
80°	60.7	71.6	82.5	93.6	104.5	115.8	127.5	139.2	150.8	162.6	170.1
82.5°	47.7	58.5	69.3	80.2	91.0	102.3	114.2	126.0	137.8	149.6	157.2
85°	29.2	40.2	51.4	62.5	73.7	85.0	96.5	108.0	119.5	131.0	138.6
87.5°	15.9	26.8	37.5	48.4	59.3	70.4	82.1	93.6	105.2	116.8	124.2
90°	8.3	19.4	30.4	41.5	52.5	64.0	76.0	87.9	99.9	111.9	119.4
92.5°	12.6	22.3	31.9	41.6	51.2	61.7	73.0	84.3	95.5	106.9	114.1
95°	23.1	29.7	36.3	42.9	49.4	58.3	69.5	80.6	91.8	103.0	110.1
97.5°	38.7	41.0	43.2	45.4	47.6	54.3	65.6	76.8	88.2	99.4	106.3
100°	51.0	49.8	48.7	47.5	46.4	51.3	62.3	73.4	84.4	95.5	102.6
102.5°	63.8	68.3	72.7	77.2	81.6	84.6	86.3	88.0	89.7	91.3	98.5
105°	81.9	88.8	95.8	102.7	109.6	110.0	103.8	97.6	91.3	85.2	92.1
107.5°	103.4	108.9	114.5	120.1	125.6	123.5	113.8	104.2	94.5	84.8	90.2
110°	116.7	121.5	126.3	131.1	135.9	134.4	126.8	119.1	111.5	103.9	103.9



TEST NUMBER: P331333-927

CATALOG NUMBER: S122DIP-S675D330U927-4F0-1E-UDD-D

CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	129.8	133.9	138.0	142.0	146.2	150.4	154.6	158.9	163.3	167.5	152.6
115°	150.5	153.4	156.4	159.3	162.3	168.5	178.0	187.5	197.0	206.5	185.6
117.5°	168.2	170.6	172.9	175.3	177.7	183.2	191.5	200.0	208.5	216.9	215.9
120°	181.7	183.3	184.9	186.4	188.0	192.9	201.1	209.3	217.5	225.8	231.5
122.5°	193.2	194.4	195.6	196.8	198.0	202.5	210.3	218.2	226.1	233.9	239.2
125°	209.8	210.6	211.4	212.1	212.8	216.6	223.4	230.3	237.1	243.9	249.2
127.5°	225.7	226.3	227.0	227.6	228.2	231.3	236.7	242.2	247.6	253.1	258.1
130°	235.8	236.5	237.2	237.9	238.7	241.2	245.6	250.0	254.4	258.8	263.7
132.5°	246.0	246.5	247.2	247.7	248.3	250.4	254.0	257.5	261.0	264.6	269.3
135°	258.5	259.4	260.3	261.2	262.1	263.7	266.0	268.4	270.7	273.0	277.3
137.5°	272.0	272.6	273.1	273.8	274.3	275.4	276.7	278.1	279.5	280.8	284.7
140°	280.7	281.1	281.3	281.6	281.9	282.5	283.5	284.5	285.4	286.5	289.9
142.5°	288.1	288.4	288.6	288.8	289.1	289.5	290.3	291.1	291.9	292.7	295.5
145°	298.9	298.9	298.8	298.7	298.7	299.1	300.1	301.1	302.1	303.0	304.5
147.5°	309.0	308.8	308.6	308.3	308.2	308.5	309.4	310.5	311.4	312.4	312.8
150°	315.5	315.1	314.7	314.3	313.9	314.3	315.1	316.1	317.0	317.9	318.2
152.5°	321.1	320.7	320.2	319.7	319.3	319.5	320.4	321.2	322.1	323.0	323.3
155°	329.2	328.6	328.1	327.6	327.1	327.2	327.9	328.5	329.2	329.9	330.3
157.5°	335.4	335.0	334.5	334.1	333.7	333.7	334.2	334.7	335.2	335.6	336.0
160°	339.1	338.8	338.4	338.1	337.8	337.8	338.1	338.4	338.8	339.1	339.5
162.5°	342.4	342.1	341.7	341.4	341.0	341.0	341.3	341.6	341.9	342.2	342.6
165°	346.8	346.5	346.1	345.8	345.5	345.4	345.5	345.7	345.9	346.0	346.4
167.5°	350.1	349.7	349.4	349.0	348.7	348.6	348.8	349.0	349.1	349.3	349.7
170°	352.0	351.6	351.3	350.9	350.5	350.5	350.5	350.7	350.8	350.9	351.3
172.5°	353.2	352.8	352.4	352.1	351.8	351.6	351.8	351.9	352.0	352.1	352.5
175°	354.7	354.3	353.9	353.6	353.2	353.0	353.2	353.2	353.4	353.5	353.9
177.5°	355.0	354.7	354.3	354.0	353.7	353.6	353.6	353.7	353.7	353.8	354.1
180°	353.9	353.9	353.9	353.9	353.9	353.9	353.9	353.9	353.9	353.9	353.9



TEST NUMBER: P331333-927

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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	558.0	558.0	558.0	558.0	558.0	558.0	558.0	558.0
2.5°	556.2	556.9	557.6	557.9	557.5	557.3	557.0	556.7
5°	554.5	555.6	556.7	557.1	556.9	556.7	556.6	556.3
7.5°	551.8	553.2	554.4	555.0	554.8	554.6	554.4	554.3
10°	549.5	551.0	552.5	553.0	552.9	552.7	552.5	552.3
12.5°	545.7	547.1	548.6	549.1	549.0	548.8	548.7	548.4
15°	538.6	540.2	541.9	542.6	542.4	542.2	542.0	541.9
17.5°	529.5	531.2	532.9	533.8	533.8	533.8	533.8	533.8
20°	522.4	524.3	526.2	527.3	527.3	527.3	527.3	527.3
22.5°	514.6	516.6	518.5	519.7	519.9	520.2	520.5	520.8
25°	502.5	504.6	506.8	508.1	508.7	509.2	509.8	510.3
27.5°	489.1	491.8	494.6	496.1	496.5	496.9	497.3	497.6
30°	479.7	482.5	485.4	487.1	487.7	488.2	488.7	489.3
32.5°	469.5	472.9	476.1	478.2	479.3	480.2	481.2	482.1
35°	455.1	459.1	463.0	465.6	466.9	468.2	469.4	470.6
37.5°	440.3	444.7	449.1	451.9	453.3	454.6	455.9	457.2
40°	429.8	434.5	439.2	442.4	443.9	445.6	447.2	448.9
42.5°	419.7	424.8	429.9	433.3	434.9	436.6	438.2	439.7
45°	404.2	409.7	415.3	419.0	420.8	422.6	424.4	426.2
47.5°	388.0	393.9	399.7	403.5	405.5	407.5	409.5	411.5
50°	376.9	383.0	389.2	393.2	395.2	397.2	399.1	401.1
52.5°	365.0	371.2	377.5	381.7	383.7	385.9	388.0	390.1
55°	346.9	353.4	359.9	364.2	366.6	368.9	371.3	373.6
57.5°	327.9	334.9	341.8	346.5	348.9	351.3	353.6	356.0
60°	315.3	322.1	329.0	333.7	336.1	338.7	341.2	343.7
62.5°	301.9	309.2	316.5	321.3	323.6	326.0	328.4	330.7
65°	281.6	289.0	296.4	301.2	303.6	305.9	308.2	310.5
67.5°	261.0	268.5	275.9	280.9	283.3	285.7	288.2	290.7
70°	246.8	254.4	262.2	267.1	269.3	271.5	273.6	275.8
72.5°	232.9	240.4	248.0	253.1	255.7	258.3	260.9	263.5
75°	212.0	219.7	227.4	232.4	234.8	237.1	239.5	241.8
77.5°	191.5	199.2	206.9	212.0	214.5	217.1	219.5	222.0
80°	177.6	185.2	192.7	197.8	200.3	202.8	205.3	207.9
82.5°	164.7	172.2	179.8	184.7	187.1	189.5	191.9	194.2
85°	146.1	153.7	161.2	166.2	168.7	171.3	173.8	176.3
87.5°	131.6	139.0	146.4	151.2	153.6	155.9	158.2	160.5
90°	126.8	134.3	141.8	146.6	148.9	151.1	153.4	155.7
92.5°	121.3	128.4	135.6	140.4	142.6	144.8	147.0	149.2
95°	117.2	124.3	131.4	136.0	138.2	140.2	142.4	144.4
97.5°	113.2	120.0	126.9	131.4	133.6	135.9	138.0	140.2
100°	109.7	116.8	123.9	128.5	130.6	132.7	134.8	136.8
102.5°	105.5	112.6	119.8	124.4	126.5	128.7	130.8	132.9
105°	99.0	105.9	112.8	117.4	119.6	121.8	124.0	126.2
107.5°	95.6	101.0	106.4	110.2	112.4	114.6	116.8	119.0
110°	104.0	104.0	104.1	105.2	107.4	109.6	111.9	114.1



TEST NUMBER: P331333-927

CATALOG NUMBER: S122DIP-S675D330U927-4F0-1E-UDD-D

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	137.5	122.6	107.5	101.1	103.2	105.4	107.6	109.7
115°	164.6	143.7	122.7	111.1	109.1	106.9	104.8	102.7
117.5°	214.8	213.7	212.7	206.4	194.7	183.1	171.4	159.9
120°	237.2	242.9	248.6	248.6	242.9	237.2	231.5	225.8
122.5°	244.5	249.9	255.2	257.9	258.1	258.3	258.5	258.7
125°	254.4	259.7	264.9	268.5	270.2	272.0	273.8	275.6
127.5°	263.2	268.2	273.2	276.6	278.1	279.8	281.4	283.0
130°	268.7	273.6	278.6	281.7	283.1	284.5	285.9	287.2
132.5°	273.9	278.7	283.4	286.5	287.8	289.1	290.6	291.9
135°	281.6	286.0	290.3	293.2	294.5	295.8	297.1	298.5
137.5°	288.6	292.4	296.3	298.7	299.8	300.8	301.8	302.9
140°	293.2	296.6	300.0	302.1	302.9	303.6	304.4	305.2
142.5°	298.3	301.0	303.8	305.5	306.2	306.8	307.4	308.1
145°	305.9	307.4	309.0	310.0	310.5	311.2	311.8	312.4
147.5°	313.2	313.6	314.1	314.4	314.6	314.8	315.0	315.2
150°	318.5	318.9	319.2	319.2	319.0	318.7	318.4	318.1
152.5°	323.7	324.0	324.3	324.3	323.9	323.6	323.2	322.8
155°	330.6	330.9	331.3	331.2	330.7	330.3	329.9	329.4
157.5°	336.4	336.8	337.2	337.2	336.7	336.3	335.8	335.4
160°	339.8	340.2	340.5	340.5	340.1	339.7	339.3	338.9
162.5°	342.9	343.3	343.7	343.7	343.2	342.7	342.2	341.7
165°	346.8	347.2	347.6	347.6	347.2	346.8	346.4	346.0
167.5°	350.1	350.5	350.9	350.8	350.3	349.7	349.3	348.7
170°	351.7	352.1	352.5	352.4	352.0	351.4	350.9	350.4
172.5°	352.9	353.3	353.7	353.7	353.2	352.7	352.1	351.6
175°	354.3	354.7	355.1	355.0	354.4	353.9	353.2	352.7
177.5°	354.4	354.7	355.1	355.0	354.6	354.2	353.8	353.4
180°	353.9	353.9	353.9	353.9	353.9	353.9	353.9	353.9

(END OF REPORT)