

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: P331343-930

Luminaire Tested: **S122DIP-S675D530U930-4F0-1E-UDD-D1**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P331343-930  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-8,  
Test Lab: INNOVATION CENTER  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: NEO-RAY  
Catalog Number: S122DIP-S675D530U930-4F0-1E-UDD-D1  
Description: DEFINE 2 DIRECT-INDIRECT PENDANT LED LUMINAIRE  
DOWNLIGHT 675 LUMENS PER FOOT, DROP SATIN WHITE DIFFUSER  
UPLIGHT 530 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3733.6 lumens  
Efficiency: N/A  
Efficacy: 92.6 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

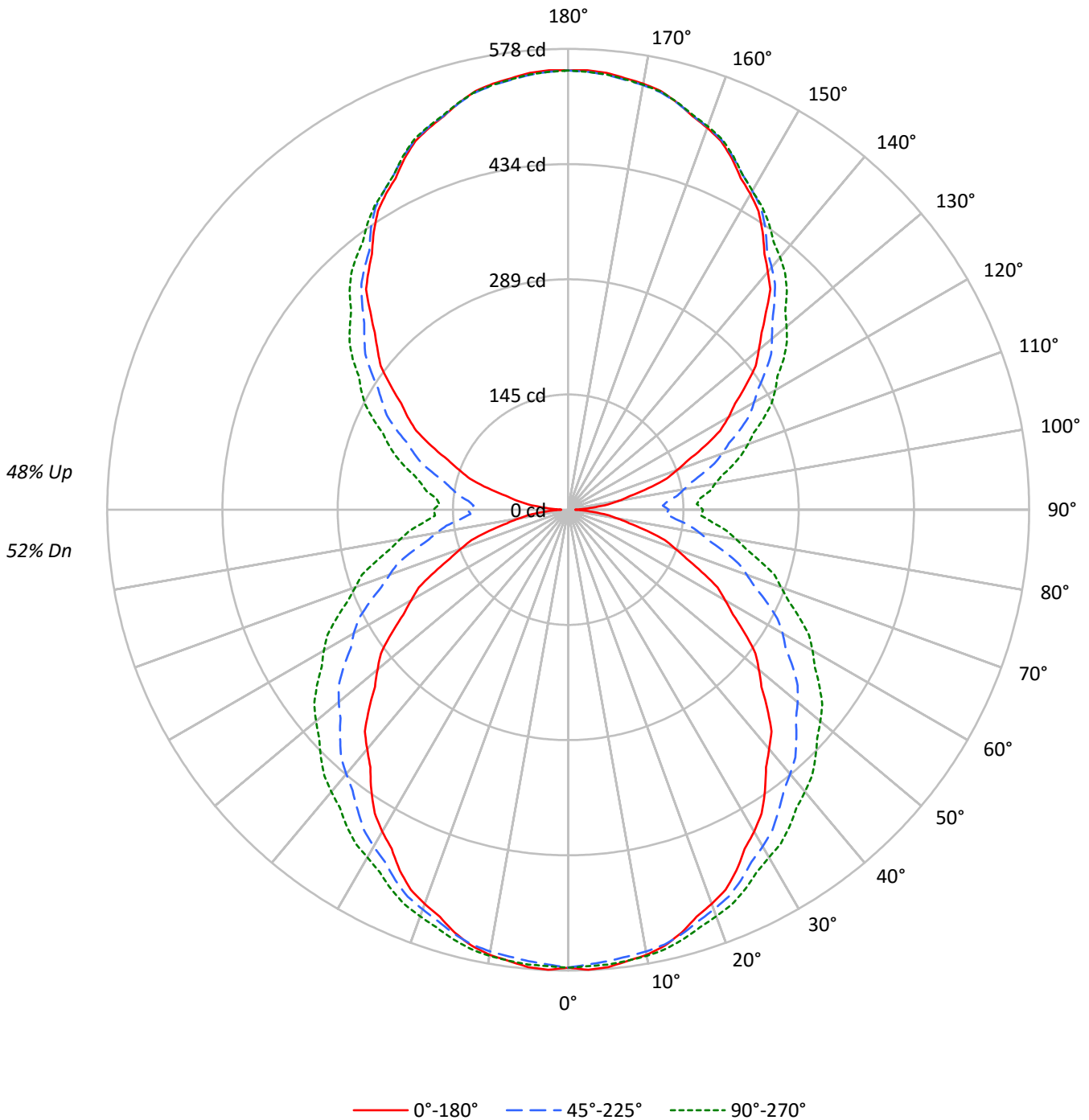
Input Watts (W): 40.3  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



TEST NUMBER: P331343-930

CATALOG NUMBER: S122DIP-S675D530U930-4F0-1E-UDD-D1

### 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	108	108	108	108	100	100	100	100	85	85	85	71	71	71	58	58	58	52
1	97	92	87	83	89	85	81	77	72	69	66	60	58	56	49	47	46	41
2	87	79	72	67	80	73	67	62	62	57	54	52	48	45	42	40	37	33
3	79	69	61	55	73	64	57	51	54	49	44	45	41	38	37	34	31	27
4	72	61	52	46	66	56	49	43	48	42	37	40	35	32	33	29	26	23
5	66	54	45	39	61	50	42	37	43	37	32	36	31	27	29	26	23	20
6	61	48	40	34	56	45	37	32	38	32	28	32	27	24	26	23	20	17
7	56	43	35	29	52	40	33	28	35	29	24	29	24	21	24	20	18	15
8	52	39	31	26	48	37	29	24	31	26	21	27	22	18	22	18	16	13
9	49	36	28	23	45	33	26	22	29	23	19	24	20	17	20	17	14	12
10	45	33	25	20	42	31	24	19	26	21	17	23	18	15	19	15	13	11

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	9273	9273	9273
5°	9317	8925	8891
10°	9259	8661	8564
15°	9131	8383	8221
20°	8970	8083	7889
25°	8811	7795	7587
30°	8587	7498	7284
35°	8359	7211	7072
40°	8120	6969	6858
45°	7894	6750	6677
50°	7650	6553	6497
55°	7394	6340	6314
60°	7081	6122	6123
65°	6755	5864	5892
70°	6394	5587	5644
75°	5927	5315	5415
80°	5197	5036	5185
85°	4489	4797	5004



TEST NUMBER: P331343-930

CATALOG NUMBER: S122DIP-S675D530U930-4F0-1E-UDD-D1

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	54.4	1.5
10°-20°	156.0	4.2
20°-30°	236.5	6.3
30°-40°	288.0	7.7
40°-50°	309.9	8.3
50°-60°	300.9	8.1
60°-70°	262.7	7.0
70°-80°	202.3	5.4
80°-90°	137.9	3.7
90°-100°	128.4	3.4
100°-110°	176.7	4.7
110°-120°	230.4	6.2
120°-130°	268.9	7.2
130°-140°	284.1	7.6
140°-150°	270.1	7.2
150°-160°	225.0	6.0
160°-170°	149.2	4.0
170°-180°	52.2	1.4
0°-30°	446.9	12.0
0°-40°	734.9	19.7
0°-60°	1345.7	36.0
0°-90°	1948.7	52.2
90°-120°	535.6	14.3
90°-150°	1358.6	36.4
90°-180°	1785.0	47.8
0°-180°	3733.6	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	574	574	574	574	574	
5°	576	573	568	573	573	55
15°	549	551	551	558	558	155
25°	499	505	513	522	525	229
35°	430	445	460	478	484	269
45°	353	376	404	429	439	272
55°	270	301	344	373	384	242
65°	185	226	275	308	320	183
75°	102	149	202	237	249	108
85°	30	82	135	168	181	32
90°	9	63	126	157	169	7
95°	31	75	126	156	166	33
105°	104	131	174	203	213	110
115°	189	203	238	261	270	187
125°	272	278	302	322	330	243
135°	351	356	365	382	388	271
145°	425	428	431	436	439	266
155°	486	487	489	491	490	224
165°	529	528	528	531	529	149
175°	550	549	548	551	548	52
180°	551	551	551	551	551	



TEST NUMBER: P331343-930

CATALOG NUMBER: S122DIP-S675D530U930-4F0-1E-UDD-D1

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	574.3	574.3	574.3	574.3	574.3	574.3	574.3	574.3	574.3	574.3	574.3
2.5°	577.6	577.2	576.7	576.3	575.8	575.1	574.1	573.0	572.0	571.0	571.7
5°	575.9	575.4	574.9	574.3	573.7	572.9	571.8	570.7	569.6	568.4	569.6
7.5°	570.8	570.4	570.1	569.6	569.3	568.7	567.9	567.0	566.1	565.3	566.6
10°	566.8	566.4	566.1	565.7	565.3	564.8	564.3	563.8	563.2	562.6	564.1
12.5°	560.1	560.2	560.3	560.4	560.4	560.3	559.9	559.5	559.1	558.6	560.1
15°	549.3	549.7	550.1	550.4	550.8	551.0	551.0	551.0	551.0	551.0	552.6
17.5°	535.3	536.1	536.9	537.7	538.4	539.2	539.7	540.3	540.9	541.5	543.2
20°	526.0	526.9	527.8	528.8	529.7	530.5	531.2	532.1	532.8	533.5	535.6
22.5°	516.0	517.1	518.2	519.3	520.3	521.4	522.4	523.4	524.5	525.5	527.6
25°	499.4	500.7	502.0	503.3	504.6	506.1	507.7	509.4	511.0	512.7	514.9
27.5°	479.4	481.5	483.6	485.8	487.9	489.9	491.9	493.8	495.8	497.7	500.5
30°	466.1	468.5	470.9	473.3	475.7	478.1	480.5	482.9	485.3	487.7	490.6
32.5°	451.4	454.1	456.8	459.5	462.3	465.0	467.9	470.7	473.5	476.4	479.8
35°	430.3	433.4	436.6	439.7	442.9	446.2	449.7	453.2	456.7	460.2	464.3
37.5°	407.3	411.0	414.6	418.2	421.8	425.9	430.5	435.0	439.5	444.1	448.7
40°	392.0	396.1	400.1	404.2	408.3	412.8	417.8	422.8	427.8	432.8	437.6
42.5°	377.4	381.4	385.5	389.6	393.6	398.5	404.3	410.0	415.7	421.5	426.7
45°	352.9	357.9	362.9	367.9	372.8	378.6	385.1	391.6	398.0	404.5	410.3
47.5°	328.7	334.2	339.7	345.0	350.5	357.0	364.6	372.2	379.8	387.3	393.4
50°	312.1	317.9	323.6	329.3	335.0	342.1	350.4	358.7	367.0	375.4	381.6
52.5°	296.1	302.1	308.2	314.2	320.2	327.7	336.4	345.2	353.9	362.7	369.2
55°	270.5	277.1	283.8	290.5	297.1	305.2	314.9	324.5	334.1	343.7	350.4
57.5°	245.2	252.7	260.2	267.7	275.2	283.9	293.7	303.5	313.3	323.1	330.3
60°	227.2	235.1	243.1	251.1	259.0	268.3	278.8	289.3	299.9	310.5	317.5
62.5°	211.2	219.5	227.7	235.9	244.3	253.6	264.2	274.7	285.3	295.8	303.3
65°	184.7	193.8	202.9	212.0	221.0	231.0	241.9	252.8	263.7	274.7	282.3
67.5°	160.5	169.9	179.4	188.9	198.4	208.6	219.8	231.0	242.1	253.3	261.0
70°	143.2	152.8	162.4	172.0	181.6	192.2	203.7	215.1	226.6	238.1	246.0
72.5°	127.2	137.1	147.0	156.9	166.8	177.6	189.2	200.8	212.5	224.0	231.9
75°	102.4	112.8	123.1	133.5	143.8	154.9	166.7	178.6	190.4	202.3	210.2
77.5°	78.4	89.3	100.1	110.9	121.7	133.2	145.2	157.3	169.3	181.2	189.2
80°	62.5	73.7	85.0	96.3	107.5	119.2	131.3	143.2	155.2	167.3	175.0
82.5°	49.1	60.3	71.3	82.5	93.7	105.3	117.5	129.6	141.8	154.0	161.8
85°	30.0	41.4	52.9	64.3	75.8	87.5	99.3	111.1	123.0	134.9	142.6
87.5°	16.4	27.6	39.0	50.2	61.5	73.3	85.5	97.8	110.1	122.5	130.0
90°	8.8	20.8	32.7	44.7	56.7	69.7	83.8	97.9	112.0	126.1	133.3
92.5°	15.9	26.8	37.7	48.6	59.5	70.9	82.8	94.8	106.7	118.6	126.0
95°	30.8	40.5	50.3	60.0	69.7	80.2	91.6	102.9	114.1	125.5	132.5
97.5°	50.0	58.6	67.3	75.9	84.5	94.4	105.4	116.5	127.5	138.6	145.4
100°	64.9	72.6	80.2	87.9	95.6	104.7	115.4	126.0	136.7	147.4	154.3
102.5°	79.8	86.7	93.7	100.5	107.5	116.2	126.6	137.1	147.5	158.0	164.8
105°	104.1	109.8	115.4	121.2	126.8	134.5	144.4	154.2	164.0	173.8	180.5
107.5°	129.5	134.2	138.9	143.7	148.4	155.4	164.6	173.8	183.0	192.2	198.5
110°	145.1	149.4	153.8	158.1	162.4	169.1	178.1	187.2	196.3	205.4	211.2



TEST NUMBER: P331343-930

CATALOG NUMBER: S122DIP-S675D530U930-4F0-1E-UDD-D1

**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	163.0	166.7	170.4	174.1	177.9	184.0	192.6	201.1	209.6	218.2	223.8
115°	189.3	191.9	194.6	197.2	199.9	205.3	213.4	221.5	229.7	237.7	243.2
117.5°	214.7	216.9	219.0	221.2	223.3	228.0	235.1	242.2	249.3	256.4	261.6
120°	232.2	233.7	235.3	236.8	238.4	242.5	249.1	255.7	262.2	268.8	273.9
122.5°	248.2	249.5	250.7	252.0	253.3	257.1	263.5	269.9	276.3	282.7	287.4
125°	272.2	273.2	274.1	275.0	276.0	279.2	284.9	290.5	296.0	301.7	306.4
127.5°	296.5	297.5	298.5	299.5	300.5	303.2	307.6	312.0	316.4	320.8	325.0
130°	311.8	312.9	314.1	315.3	316.4	318.8	322.5	326.2	329.9	333.5	337.8
132.5°	328.9	329.8	330.7	331.6	332.5	334.5	337.5	340.6	343.6	346.7	350.5
135°	350.9	352.0	353.2	354.3	355.5	357.0	359.1	361.2	363.2	365.3	369.1
137.5°	375.0	375.9	376.7	377.6	378.5	379.5	380.7	381.7	382.8	383.9	387.2
140°	389.5	390.3	391.0	391.8	392.5	393.3	394.2	395.1	396.0	396.8	399.8
142.5°	404.4	405.1	405.9	406.6	407.3	408.0	408.4	408.8	409.2	409.7	412.1
145°	424.9	425.7	426.4	427.1	427.9	428.5	429.1	429.7	430.4	431.0	432.2
147.5°	444.0	444.8	445.7	446.6	447.4	448.1	448.5	448.9	449.3	449.8	450.1
150°	457.1	457.6	458.3	458.9	459.5	460.0	460.4	460.8	461.2	461.7	461.9
152.5°	468.6	469.2	469.8	470.4	471.0	471.6	472.1	472.5	473.0	473.6	473.9
155°	485.8	486.2	486.5	486.7	487.1	487.4	487.7	488.0	488.3	488.6	489.2
157.5°	500.6	500.8	501.0	501.2	501.5	501.7	501.8	502.1	502.2	502.4	503.1
160°	509.6	509.7	510.0	510.1	510.4	510.5	510.6	510.7	510.9	510.9	511.6
162.5°	517.7	517.8	517.8	517.9	517.9	518.0	518.0	518.2	518.3	518.4	519.1
165°	528.6	528.5	528.4	528.3	528.2	528.2	528.2	528.2	528.2	528.2	528.9
167.5°	537.7	537.4	537.1	536.8	536.5	536.3	536.3	536.3	536.2	536.2	537.0
170°	542.6	542.3	541.9	541.6	541.4	541.1	541.0	540.9	540.8	540.7	541.4
172.5°	545.9	545.6	545.3	544.9	544.7	544.5	544.4	544.3	544.1	544.0	544.8
175°	550.0	549.7	549.3	549.1	548.8	548.5	548.3	548.1	547.9	547.6	548.4
177.5°	551.7	551.4	551.1	550.9	550.7	550.5	550.3	550.2	550.0	549.8	550.3
180°	550.9	550.9	550.9	550.9	550.9	550.9	550.9	550.9	550.9	550.9	550.9



TEST NUMBER: P331343-930

CATALOG NUMBER: S122DIP-S675D530U930-4F0-1E-UDD-D1

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
0°	574.3	574.3	574.3	574.3	574.3	574.3	574.3	574.3
2.5°	572.4	573.2	573.9	574.1	573.8	573.6	573.2	573.0
5°	570.7	571.8	572.9	573.4	573.2	573.0	572.8	572.6
7.5°	567.9	569.3	570.6	571.2	571.0	570.8	570.6	570.5
10°	565.6	567.0	568.6	569.2	569.0	568.8	568.7	568.4
12.5°	561.6	563.0	564.6	565.2	565.0	564.8	564.7	564.4
15°	554.3	556.0	557.7	558.4	558.2	558.0	557.8	557.7
17.5°	544.9	546.7	548.5	549.3	549.3	549.3	549.3	549.3
20°	537.6	539.6	541.6	542.7	542.7	542.7	542.7	542.7
22.5°	529.6	531.7	533.6	534.8	535.1	535.4	535.7	536.0
25°	517.1	519.3	521.5	522.9	523.5	524.1	524.6	525.2
27.5°	503.4	506.1	509.0	510.5	510.9	511.4	511.8	512.2
30°	493.7	496.6	499.5	501.3	501.9	502.5	503.0	503.5
32.5°	483.2	486.7	490.0	492.2	493.3	494.2	495.2	496.2
35°	468.4	472.5	476.5	479.2	480.5	481.8	483.1	484.4
37.5°	453.1	457.6	462.2	465.1	466.5	467.8	469.2	470.6
40°	442.4	447.2	452.0	455.3	456.9	458.6	460.2	461.9
42.5°	431.9	437.2	442.5	446.0	447.6	449.3	450.9	452.6
45°	416.0	421.7	427.5	431.2	433.1	435.0	436.8	438.6
47.5°	399.3	405.4	411.3	415.3	417.4	419.4	421.4	423.5
50°	387.9	394.2	400.6	404.7	406.8	408.8	410.7	412.8
52.5°	375.6	382.0	388.5	392.8	394.9	397.1	399.3	401.5
55°	357.0	363.7	370.4	374.9	377.3	379.7	382.1	384.5
57.5°	337.5	344.6	351.8	356.6	359.1	361.5	363.9	366.4
60°	324.5	331.5	338.6	343.4	345.9	348.5	351.1	353.8
62.5°	310.7	318.2	325.7	330.7	333.0	335.5	337.9	340.4
65°	289.8	297.4	305.0	310.0	312.4	314.8	317.2	319.6
67.5°	268.6	276.3	284.0	289.1	291.6	294.1	296.6	299.1
70°	254.0	261.9	269.9	274.9	277.1	279.4	281.6	283.8
72.5°	239.7	247.4	255.3	260.5	263.2	265.9	268.5	271.2
75°	218.2	226.1	234.1	239.2	241.7	244.0	246.5	248.8
77.5°	197.1	205.0	213.0	218.2	220.8	223.4	225.9	228.5
80°	182.8	190.6	198.4	203.6	206.1	208.7	211.3	213.9
82.5°	169.5	177.2	185.1	190.1	192.6	195.0	197.5	199.9
85°	150.3	158.2	165.9	171.0	173.7	176.3	178.9	181.4
87.5°	137.5	145.0	152.5	157.4	159.8	162.2	164.6	167.0
90°	140.6	147.7	154.9	159.6	162.0	164.3	166.6	168.9
92.5°	133.2	140.6	147.8	152.6	154.8	157.1	159.3	161.5
95°	139.5	146.6	153.6	158.1	160.1	162.2	164.1	166.2
97.5°	152.3	159.1	166.0	170.5	172.6	174.8	176.9	179.1
100°	161.1	168.0	174.8	179.1	181.1	183.0	184.9	186.9
102.5°	171.5	178.3	185.1	189.5	191.4	193.3	195.3	197.1
105°	187.2	193.9	200.6	205.0	207.0	209.0	211.1	213.0
107.5°	204.8	211.2	217.4	221.4	222.9	224.5	226.0	227.6
110°	217.2	223.1	229.0	232.8	234.6	236.3	238.0	239.8





TEST NUMBER: P331343-930

CATALOG NUMBER: S122DIP-S675D530U930-4F0-1E-UDD-D1

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	229.5	235.2	240.8	244.6	246.4	248.2	250.0	251.8
115°	248.7	254.1	259.5	263.1	264.9	266.6	268.3	270.0
117.5°	266.8	272.1	277.4	280.7	282.3	283.9	285.4	287.1
120°	279.2	284.3	289.5	292.9	294.6	296.4	298.2	299.9
122.5°	292.2	297.0	301.7	304.9	306.5	307.9	309.5	311.0
125°	311.0	315.7	320.4	323.5	325.1	326.7	328.2	329.8
127.5°	329.2	333.5	337.6	340.4	341.7	343.0	344.3	345.6
130°	342.0	346.3	350.4	353.1	354.2	355.2	356.3	357.3
132.5°	354.3	358.2	362.0	364.4	365.7	366.8	367.9	369.1
135°	372.8	376.6	380.4	382.9	384.1	385.2	386.4	387.6
137.5°	390.5	393.9	397.1	399.3	400.1	401.0	401.8	402.6
140°	402.8	405.7	408.7	410.5	411.2	411.9	412.6	413.3
142.5°	414.6	417.0	419.5	420.9	421.5	422.1	422.6	423.1
145°	433.4	434.6	435.9	436.7	437.2	437.7	438.2	438.7
147.5°	450.5	450.9	451.3	451.5	451.5	451.6	451.6	451.7
150°	462.3	462.6	462.9	462.9	462.6	462.3	461.9	461.7
152.5°	474.3	474.7	475.2	475.2	474.7	474.3	473.9	473.6
155°	489.7	490.2	490.7	490.8	490.5	490.2	489.8	489.6
157.5°	503.8	504.5	505.2	505.3	504.8	504.3	503.9	503.3
160°	512.2	512.8	513.4	513.6	513.1	512.7	512.3	511.8
162.5°	519.8	520.5	521.2	521.3	520.8	520.3	519.8	519.3
165°	529.6	530.4	531.0	531.2	530.6	530.1	529.6	529.0
167.5°	537.7	538.4	539.2	539.2	538.7	538.2	537.6	537.0
170°	542.2	542.9	543.6	543.6	543.0	542.4	541.8	541.2
172.5°	545.5	546.3	546.9	547.0	546.4	545.8	545.1	544.5
175°	549.1	549.8	550.6	550.7	550.0	549.3	548.8	548.1
177.5°	550.8	551.3	551.8	551.8	551.3	550.8	550.3	549.8
180°	550.9	550.9	550.9	550.9	550.9	550.9	550.9	550.9

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