

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: P331342-940

Luminaire Tested: **S122DIP-S675D530U940-4F0-1E-UDD-D**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P331342-940
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-S675D530U940-4F0-1E-UDD-D
Description: DEFINE 2 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 675 LUMENS PER FOOT, DROP SATIN WHITE DIFFUSER
UPLIGHT 530 LUMENS PER FOOT, NO LENS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4282.6 lumens
Efficiency: N/A
Efficacy: 106.3 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

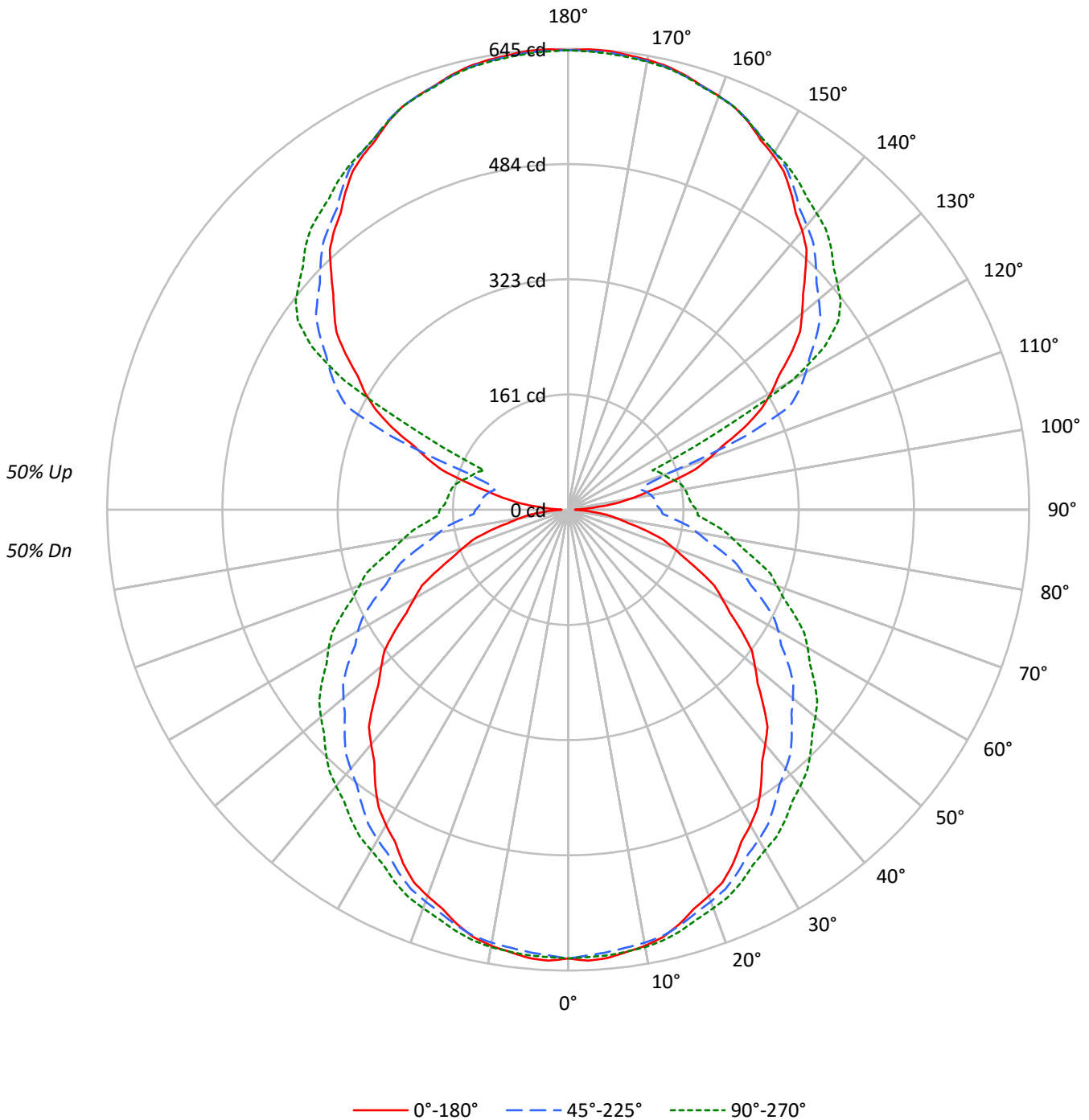
Input Watts (W): 40.3
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





TEST NUMBER: P331342-940

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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	50	30	10	0	
RCR																						
0	107	107	107	107	99	99	99	99	83	83	83	69	69	69	56	56	56	50				
1	96	91	87	83	88	84	80	77	71	68	65	58	56	54	47	46	44	39				
2	87	79	72	66	80	73	67	62	61	57	53	50	47	44	41	38	36	31				
3	79	69	61	55	72	63	57	51	53	48	44	44	40	37	35	33	30	26				
4	72	61	52	46	66	56	48	43	47	41	37	39	35	31	31	28	25	22				
5	66	54	45	39	60	50	42	36	42	36	31	35	30	27	28	25	22	19				
6	61	48	40	34	56	44	37	31	38	32	27	31	27	23	25	22	19	16				
7	56	43	35	29	51	40	33	27	34	28	24	28	24	20	23	20	17	14				
8	52	39	31	26	48	36	29	24	31	25	21	26	21	18	21	18	15	13				
9	48	36	28	23	44	33	26	21	28	23	19	24	19	16	20	16	14	11				
10	45	33	25	20	41	30	24	19	26	21	17	22	18	15	18	15	12	10				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	10141	10141	10141
5°	10191	9762	9724
10°	10126	9474	9367
15°	9987	9168	8990
20°	9810	8841	8627
25°	9637	8525	8298
30°	9392	8201	7967
35°	9142	7888	7735
40°	8880	7621	7501
45°	8632	7383	7302
50°	8365	7166	7106
55°	8089	6934	6906
60°	7745	6695	6695
65°	7391	6412	6445
70°	6992	6110	6173
75°	6483	5811	5925
80°	5680	5509	5672
85°	4908	5245	5473



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	59.5	1.4
10°-20°	170.7	4.0
20°-30°	258.6	6.0
30°-40°	315.0	7.4
40°-50°	338.9	7.9
50°-60°	329.1	7.7
60°-70°	287.4	6.7
70°-80°	221.2	5.2
80°-90°	150.1	3.5
90°-100°	123.7	2.9
100°-110°	153.4	3.6
110°-120°	259.6	6.1
120°-130°	374.7	8.7
130°-140°	380.7	8.9
140°-150°	345.1	8.1
150°-160°	275.9	6.4
160°-170°	177.8	4.2
170°-180°	61.2	1.4
0°-30°	488.8	11.4
0°-40°	803.8	18.8
0°-60°	1471.8	34.4
0°-90°	2130.5	49.7
90°-120°	536.7	12.5
90°-150°	1637.3	38.2
90°-180°	2152.0	50.3
0°-180°	4282.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	628	628	628	628	628	
5°	630	627	622	627	626	60
15°	601	602	603	610	610	169
25°	546	553	561	571	574	251
35°	471	486	503	523	530	294
45°	386	411	442	470	480	298
55°	296	329	376	408	420	264
65°	202	247	300	336	350	201
75°	112	163	221	259	272	118
85°	33	89	148	184	198	35
90°	10	68	130	167	180	7
95°	38	67	123	158	170	43
105°	146	180	107	142	156	156
115°	271	291	342	163	130	267
125°	380	388	424	451	462	339
135°	469	477	490	513	520	362
145°	543	543	550	559	561	340
155°	598	594	599	602	598	275
165°	630	628	629	632	629	178
175°	644	642	642	645	641	61
180°	643	643	643	643	643	



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CATALOG NUMBER: S122DIP-S675D530U940-4F0-1E-UDD-D

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	628.1	628.1	628.1	628.1	628.1	628.1	628.1	628.1	628.1	628.1	628.1
2.5°	631.8	631.2	630.8	630.3	629.8	629.0	627.9	626.7	625.6	624.5	625.3
5°	629.9	629.3	628.7	628.1	627.5	626.6	625.4	624.2	622.9	621.7	622.9
7.5°	624.3	623.8	623.5	623.0	622.7	622.0	621.1	620.1	619.2	618.3	619.7
10°	619.9	619.5	619.1	618.7	618.3	617.8	617.2	616.6	616.0	615.4	617.0
12.5°	612.6	612.7	612.8	612.9	613.0	612.8	612.3	611.9	611.4	611.0	612.6
15°	600.8	601.2	601.6	602.0	602.4	602.6	602.6	602.6	602.6	602.6	604.4
17.5°	585.5	586.4	587.2	588.1	588.9	589.7	590.3	590.9	591.6	592.3	594.1
20°	575.3	576.3	577.3	578.4	579.3	580.2	581.0	581.9	582.7	583.5	585.8
22.5°	564.4	565.5	566.8	567.9	569.1	570.2	571.4	572.5	573.6	574.8	577.0
25°	546.2	547.6	549.0	550.5	551.9	553.5	555.3	557.1	558.9	560.7	563.2
27.5°	524.3	526.6	529.0	531.3	533.6	535.8	538.0	540.1	542.2	544.4	547.4
30°	509.8	512.4	515.1	517.6	520.3	522.9	525.6	528.2	530.8	533.4	536.6
32.5°	493.7	496.7	499.6	502.6	505.6	508.6	511.8	514.8	517.9	521.0	524.8
35°	470.6	474.0	477.5	480.9	484.4	488.0	491.9	495.7	499.5	503.4	507.8
37.5°	445.5	449.5	453.4	457.4	461.4	465.8	470.8	475.8	480.7	485.7	490.7
40°	428.7	433.2	437.7	442.1	446.6	451.5	457.0	462.4	467.9	473.3	478.6
42.5°	412.8	417.1	421.6	426.1	430.5	435.9	442.2	448.4	454.7	461.0	466.7
45°	385.9	391.5	396.9	402.3	407.8	414.1	421.2	428.3	435.3	442.4	448.7
47.5°	359.5	365.5	371.5	377.4	383.3	390.5	398.8	407.1	415.4	423.7	430.3
50°	341.3	347.7	353.9	360.2	366.4	374.2	383.3	392.4	401.4	410.5	417.4
52.5°	323.9	330.5	337.1	343.7	350.3	358.4	367.9	377.6	387.1	396.7	403.8
55°	295.9	303.1	310.4	317.7	324.9	333.9	344.4	354.9	365.4	375.9	383.3
57.5°	268.1	276.4	284.6	292.8	301.0	310.5	321.2	331.9	342.7	353.4	361.2
60°	248.5	257.2	265.9	274.6	283.3	293.5	305.0	316.5	328.0	339.6	347.2
62.5°	231.0	240.0	249.1	258.1	267.2	277.4	288.9	300.4	312.0	323.5	331.7
65°	202.1	212.0	221.9	231.8	241.7	252.6	264.6	276.5	288.5	300.4	308.7
67.5°	175.5	185.8	196.3	206.6	217.0	228.2	240.4	252.6	264.8	277.1	285.4
70°	156.6	167.1	177.6	188.2	198.7	210.2	222.7	235.2	247.8	260.4	269.0
72.5°	139.1	149.9	160.8	171.7	182.4	194.2	207.0	219.6	232.4	245.0	253.6
75°	112.0	123.3	134.6	146.0	157.3	169.4	182.4	195.3	208.2	221.2	229.9
77.5°	85.8	97.6	109.5	121.3	133.1	145.7	158.8	172.0	185.1	198.2	207.0
80°	68.3	80.6	92.9	105.3	117.6	130.4	143.6	156.7	169.8	183.0	191.5
82.5°	53.7	65.9	78.0	90.2	102.5	115.1	128.5	141.8	155.1	168.4	176.9
85°	32.8	45.3	57.9	70.4	82.9	95.7	108.6	121.5	134.6	147.5	156.0
87.5°	17.9	30.2	42.5	54.8	67.1	79.8	92.9	106.0	119.1	132.2	140.5
90°	9.5	22.5	35.3	48.2	61.1	74.4	88.2	101.9	115.7	129.5	138.0
92.5°	17.7	28.6	39.4	50.2	61.1	72.9	85.8	98.6	111.6	124.4	132.6
95°	37.5	43.6	49.8	55.8	61.9	71.4	84.3	97.1	109.9	122.9	131.1
97.5°	66.4	65.3	64.1	63.0	61.8	67.9	81.1	94.5	107.8	121.2	129.0
100°	88.7	82.0	75.3	68.7	62.0	65.2	78.3	91.4	104.5	117.5	125.9
102.5°	112.6	116.5	120.3	124.1	128.0	128.0	124.3	120.6	116.9	113.2	121.6
105°	146.1	155.0	164.0	172.9	181.9	177.5	159.8	142.1	124.4	106.6	114.9
107.5°	185.2	192.4	199.6	206.8	214.0	205.7	181.9	158.1	134.4	110.6	116.2
110°	209.8	216.0	222.2	228.5	234.7	227.7	207.8	187.8	167.8	147.8	144.0



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	233.6	239.0	244.2	249.6	254.9	258.6	260.6	262.7	264.7	266.8	235.5
115°	271.3	275.2	279.2	283.2	287.1	295.0	306.7	318.3	330.0	341.7	300.0
117.5°	303.9	307.4	310.8	314.1	317.6	324.4	334.6	344.8	355.0	365.2	359.6
120°	328.5	330.8	333.2	335.6	338.0	344.1	354.0	364.0	373.9	383.9	390.8
122.5°	349.4	351.2	353.2	355.2	357.1	362.9	372.6	382.2	391.8	401.4	407.7
125°	380.1	381.5	382.8	384.1	385.6	390.4	398.9	407.3	415.7	424.2	430.3
127.5°	408.9	410.2	411.5	412.8	414.0	418.0	424.7	431.4	438.1	444.8	450.8
130°	427.1	428.6	430.1	431.5	432.9	436.4	441.8	447.2	452.5	457.9	464.0
132.5°	445.8	447.0	448.2	449.4	450.6	453.4	457.8	462.3	466.6	471.1	476.7
135°	469.0	470.7	472.3	474.0	475.6	478.0	480.9	483.9	486.9	489.8	495.1
137.5°	493.6	494.6	495.8	496.9	498.0	499.5	501.5	503.5	505.3	507.3	512.0
140°	509.5	510.1	510.8	511.4	512.0	513.1	514.7	516.2	517.7	519.3	523.4
142.5°	523.0	523.5	524.1	524.6	525.1	526.1	527.4	528.9	530.2	531.6	535.0
145°	543.1	543.0	542.9	542.8	542.7	543.5	545.3	547.0	548.8	550.5	552.4
147.5°	561.4	561.0	560.6	560.3	559.8	560.5	562.2	564.0	565.7	567.5	568.2
150°	573.3	572.6	571.9	571.1	570.4	570.9	572.6	574.2	575.9	577.5	578.1
152.5°	583.4	582.6	581.8	580.9	580.1	580.5	582.1	583.7	585.2	586.8	587.5
155°	598.0	597.1	596.1	595.2	594.2	594.4	595.7	596.9	598.2	599.4	600.0
157.5°	609.4	608.7	607.9	607.1	606.3	606.4	607.2	608.1	608.9	609.8	610.5
160°	616.2	615.5	614.9	614.3	613.7	613.7	614.3	614.9	615.5	616.2	616.8
162.5°	622.1	621.4	620.8	620.2	619.6	619.6	620.1	620.6	621.2	621.7	622.4
165°	630.1	629.5	628.8	628.2	627.6	627.5	627.8	628.0	628.4	628.7	629.5
167.5°	636.1	635.4	634.8	634.2	633.6	633.4	633.6	634.0	634.3	634.5	635.3
170°	639.4	638.8	638.2	637.6	636.9	636.7	636.9	637.1	637.3	637.6	638.3
172.5°	641.7	641.1	640.4	639.8	639.2	638.9	639.2	639.4	639.5	639.8	640.5
175°	644.5	643.8	643.1	642.4	641.6	641.4	641.6	641.8	641.9	642.2	642.9
177.5°	645.0	644.4	643.8	643.3	642.7	642.4	642.5	642.6	642.7	642.7	643.4
180°	643.1	643.1	643.1	643.1	643.1	643.1	643.1	643.1	643.1	643.1	643.1



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CATALOG NUMBER: S122DIP-S675D530U940-4F0-1E-UDD-D

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	628.1	628.1	628.1	628.1	628.1	628.1	628.1	628.1
2.5°	626.1	626.9	627.7	627.9	627.6	627.3	627.0	626.7
5°	624.2	625.4	626.6	627.1	626.9	626.7	626.5	626.2
7.5°	621.2	622.7	624.1	624.7	624.6	624.3	624.1	623.9
10°	618.6	620.2	621.9	622.5	622.3	622.1	622.0	621.7
12.5°	614.2	615.8	617.5	618.1	618.0	617.8	617.6	617.3
15°	606.3	608.1	609.9	610.7	610.6	610.3	610.1	609.9
17.5°	596.0	598.0	599.9	600.8	600.8	600.8	600.8	600.8
20°	588.0	590.2	592.4	593.5	593.5	593.5	593.5	593.5
22.5°	579.3	581.5	583.6	585.0	585.2	585.6	585.9	586.2
25°	565.6	568.0	570.4	571.9	572.6	573.2	573.8	574.4
27.5°	550.5	553.6	556.7	558.4	558.8	559.3	559.7	560.2
30°	539.9	543.1	546.4	548.3	548.9	549.6	550.1	550.7
32.5°	528.5	532.3	535.9	538.3	539.5	540.6	541.6	542.7
35°	512.3	516.7	521.2	524.1	525.6	527.0	528.3	529.8
37.5°	495.6	500.5	505.5	508.7	510.2	511.7	513.2	514.7
40°	483.8	489.1	494.4	497.9	499.7	501.6	503.4	505.2
42.5°	472.4	478.2	483.9	487.8	489.5	491.4	493.2	495.0
45°	455.0	461.2	467.5	471.6	473.7	475.7	477.7	479.7
47.5°	436.8	443.4	449.9	454.2	456.5	458.7	460.9	463.2
50°	424.3	431.1	438.1	442.6	444.9	447.1	449.2	451.5
52.5°	410.8	417.9	424.9	429.6	431.9	434.4	436.8	439.2
55°	390.5	397.8	405.1	410.0	412.7	415.3	417.9	420.5
57.5°	369.1	376.9	384.8	390.0	392.7	395.4	398.1	400.7
60°	354.9	362.6	370.3	375.6	378.4	381.2	384.1	386.9
62.5°	339.8	348.0	356.2	361.7	364.3	366.9	369.6	372.3
65°	317.0	325.3	333.6	339.0	341.7	344.3	347.0	349.6
67.5°	293.8	302.2	310.6	316.2	318.9	321.6	324.4	327.2
70°	277.8	286.4	295.2	300.7	303.1	305.6	308.0	310.4
72.5°	262.2	270.6	279.2	284.9	287.8	290.8	293.6	296.6
75°	238.6	247.3	256.0	261.6	264.3	266.9	269.6	272.2
77.5°	215.6	224.3	232.9	238.6	241.5	244.3	247.1	249.9
80°	199.9	208.5	217.0	222.7	225.4	228.3	231.1	234.0
82.5°	185.4	193.9	202.4	207.9	210.6	213.3	216.0	218.6
85°	164.4	173.0	181.5	187.1	189.9	192.8	195.6	198.4
87.5°	148.9	157.3	165.7	171.1	173.8	176.4	179.1	181.6
90°	146.7	155.3	163.9	169.5	172.2	174.8	177.5	180.0
92.5°	140.8	149.0	157.2	162.6	165.1	167.6	170.2	172.8
95°	139.3	147.5	155.7	161.0	163.3	165.6	167.9	170.2
97.5°	137.0	144.8	152.8	157.9	160.4	163.0	165.5	168.0
100°	134.2	142.5	150.8	156.1	158.6	161.0	163.5	165.9
102.5°	130.0	138.4	146.8	152.2	154.8	157.3	159.8	162.3
105°	123.1	131.3	139.6	145.0	147.6	150.3	152.9	155.5
107.5°	121.8	127.5	133.1	137.2	139.9	142.5	145.2	147.8
110°	140.2	136.3	132.4	131.8	134.5	137.1	139.7	142.3



TEST NUMBER: P331342-940

CATALOG NUMBER: S122DIP-S675D530U940-4F0-1E-UDD-D

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	204.3	173.0	141.8	127.4	129.9	132.5	135.1	137.6
115°	258.2	216.3	174.5	151.0	145.8	140.5	135.4	130.1
117.5°	354.0	348.4	342.8	328.8	306.4	284.0	261.6	239.2
120°	397.7	404.6	411.5	409.1	397.3	385.7	373.9	362.1
122.5°	414.0	420.3	426.5	429.2	428.4	427.6	426.8	426.0
125°	436.6	442.7	448.9	453.1	455.2	457.4	459.5	461.6
127.5°	456.9	463.0	469.1	473.1	474.9	476.7	478.6	480.5
130°	469.9	475.9	481.9	485.6	487.1	488.7	490.2	491.7
132.5°	482.4	488.0	493.7	497.3	498.8	500.3	501.9	503.4
135°	500.3	505.6	511.0	514.2	515.7	517.1	518.5	520.0
137.5°	516.7	521.6	526.3	529.1	530.1	531.2	532.2	533.2
140°	527.6	531.8	536.0	538.4	539.1	539.8	540.5	541.2
142.5°	538.5	541.9	545.4	547.3	547.9	548.4	548.9	549.5
145°	554.4	556.3	558.3	559.5	560.0	560.4	561.0	561.4
147.5°	568.8	569.5	570.2	570.6	570.7	570.7	570.8	570.9
150°	578.7	579.3	580.0	580.1	579.5	579.0	578.5	578.0
152.5°	588.1	588.7	589.3	589.2	588.6	587.9	587.2	586.6
155°	600.7	601.3	601.9	601.7	600.9	600.1	599.3	598.4
157.5°	611.2	611.9	612.6	612.6	611.7	610.9	610.1	609.3
160°	617.3	618.0	618.6	618.6	617.9	617.2	616.4	615.6
162.5°	623.1	623.8	624.6	624.5	623.6	622.7	621.8	620.9
165°	630.2	630.9	631.6	631.6	630.9	630.2	629.5	628.7
167.5°	636.0	636.8	637.5	637.4	636.4	635.5	634.5	633.6
170°	639.0	639.7	640.4	640.3	639.4	638.5	637.6	636.6
172.5°	641.2	641.9	642.7	642.6	641.7	640.7	639.8	638.8
175°	643.6	644.4	645.1	645.0	643.9	642.8	641.9	640.8
177.5°	643.9	644.5	645.1	645.0	644.3	643.5	642.7	642.0
180°	643.1	643.1	643.1	643.1	643.1	643.1	643.1	643.1

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