

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: P332592

Luminaire Tested: **S124DIP-S795D590U835-4F0-1E-UDD-D**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P332592
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-6,
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S124DIP-S795D590U835-4F0-1E-UDD-D
Description: DEFINE 4 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 795 LUMENS PER FOOT, DROP SATIN WHITE DIFFUSER
UPLIGHT 590 LUMENS PER FOOT, NO LENS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5599.3 lumens
Efficiency: N/A
Efficacy: 138.9 lumens/watt
Spacing Criteria (0/90/45): 1.23 / 1.28 / 1.39
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 4' x H: 0.08')
CIE Type: General Diffuse

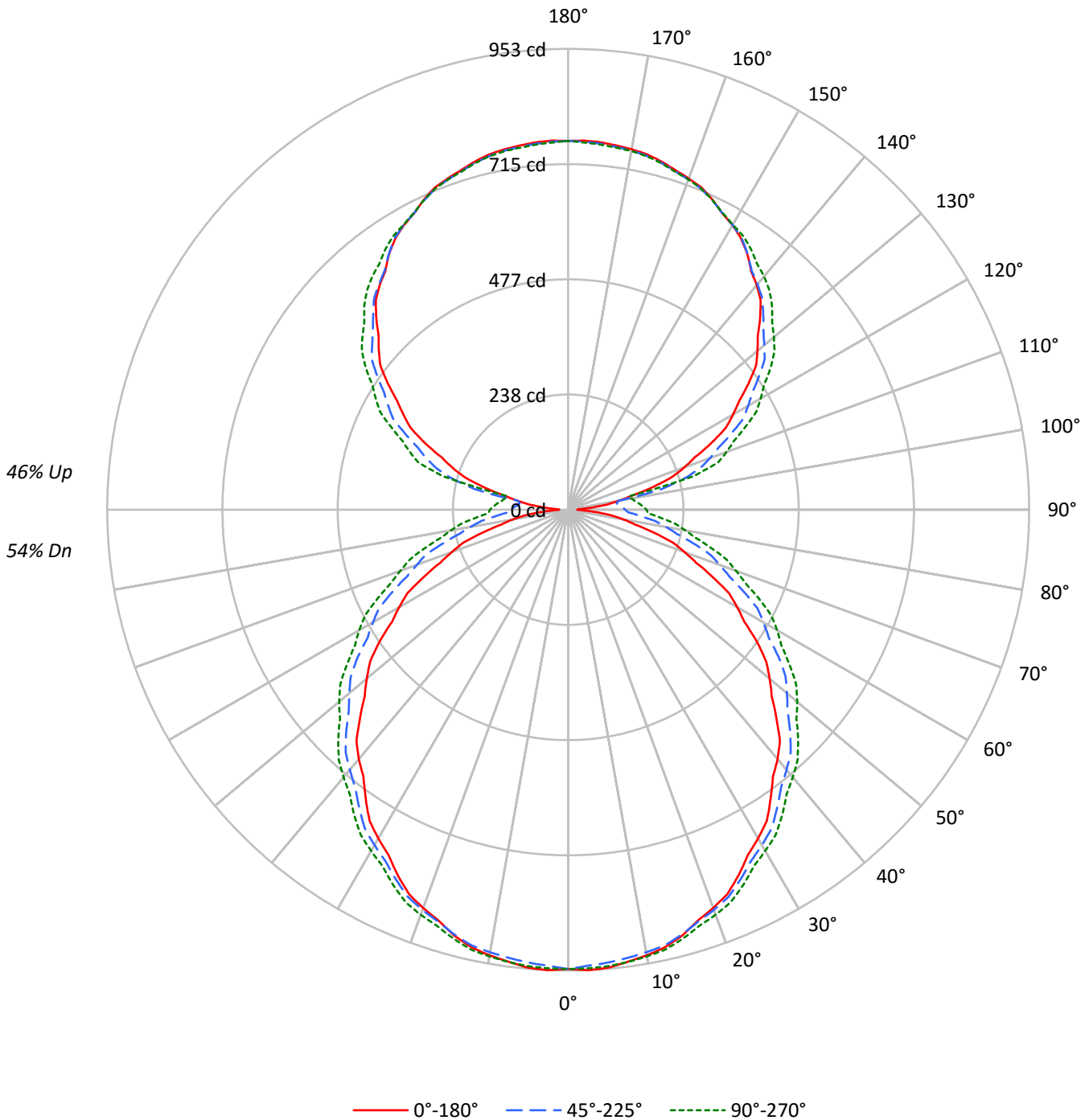
Input Watts (W): 40.3
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	108	108	108	108	100	100	100	100	85	85	85	72	72	72	59	59	59	54
1	97	93	88	84	90	86	82	79	73	70	68	61	59	58	51	49	48	43
2	88	80	74	68	81	74	69	64	63	59	55	53	50	47	44	42	40	35
3	80	70	62	56	74	65	58	53	56	50	46	47	43	39	39	36	33	29
4	73	62	54	47	67	57	50	44	49	43	39	41	37	33	34	31	28	25
5	67	55	46	40	62	51	44	38	44	38	33	37	32	29	31	27	24	21
6	62	49	41	35	57	46	38	33	39	33	29	33	29	25	28	24	21	18
7	57	44	36	30	53	41	34	29	36	30	25	30	26	22	25	22	19	16
8	53	40	32	27	49	38	30	25	32	27	22	28	23	20	23	20	17	14
9	49	37	29	24	45	34	27	22	30	24	20	25	21	18	21	18	15	13
10	46	34	26	21	43	31	25	20	27	22	18	23	19	16	20	16	14	12

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	7668	7668	7668
5°	7692	7494	7516
10°	7645	7371	7366
15°	7577	7230	7190
20°	7473	7073	7019
25°	7357	6898	6831
30°	7231	6723	6637
35°	7088	6544	6468
40°	6974	6374	6291
45°	6804	6217	6140
50°	6661	6036	5980
55°	6513	5866	5792
60°	6282	5649	5621
65°	6029	5415	5409
70°	5722	5149	5165
75°	5296	4857	4943
80°	4819	4575	4724
85°	4219	4325	4598



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	89.9	1.6
10°-20°	257.7	4.6
20°-30°	389.7	7.0
30°-40°	471.5	8.4
40°-50°	498.5	8.9
50°-60°	469.1	8.4
60°-70°	389.2	7.0
70°-80°	273.4	4.9
80°-90°	156.8	2.8
90°-100°	117.9	2.1
100°-110°	234.2	4.2
110°-120°	363.8	6.5
120°-130°	429.6	7.7
130°-140°	443.2	7.9
140°-150°	406.3	7.3
150°-160°	325.9	5.8
160°-170°	210.2	3.8
170°-180°	72.4	1.3
0°-30°	737.4	13.2
0°-40°	1208.8	21.6
0°-60°	2176.4	38.9
0°-90°	2995.8	53.5
90°-120°	715.9	12.8
90°-150°	1995.0	35.6
90°-180°	2604.0	46.5
0°-180°	5599.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	950	950	950	950	950	
5°	951	948	940	948	948	90
15°	912	912	909	918	918	257
25°	834	840	844	855	856	384
35°	730	742	753	767	771	457
45°	608	629	649	666	672	470
55°	476	499	531	551	558	424
65°	330	364	400	426	435	327
75°	183	223	267	296	306	195
85°	56	101	149	180	192	60
90°	19	68	118	151	162	13
95°	45	62	105	136	147	51
105°	181	207	248	278	268	190
115°	327	340	372	395	404	322
125°	455	457	482	503	510	406
135°	561	561	570	588	596	432
145°	646	646	646	653	659	403
155°	707	707	706	708	706	326
165°	746	743	743	747	742	211
175°	763	759	760	764	758	73
180°	763	763	763	763	763	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	949.9	949.9	949.9	949.9	949.9	949.9	949.9	949.9	949.9	949.9	949.9
2.5°	953.3	952.7	952.1	951.6	951.0	950.0	948.4	946.9	945.4	943.9	945.2
5°	950.9	950.2	949.5	948.8	948.1	946.9	945.2	943.6	941.9	940.3	942.2
7.5°	942.8	942.4	942.0	941.6	941.1	940.2	938.9	937.5	936.1	934.8	936.9
10°	936.0	935.8	935.6	935.3	935.1	934.4	933.2	932.0	930.8	929.6	931.8
12.5°	926.7	926.6	926.6	926.5	926.5	926.1	925.3	924.4	923.6	922.8	924.8
15°	911.6	911.8	912.0	912.3	912.5	912.3	911.6	910.9	910.1	909.4	911.6
17.5°	890.9	891.6	892.3	893.1	893.8	894.0	893.9	893.8	893.6	893.5	895.7
20°	876.5	877.2	877.9	878.6	879.3	879.8	880.0	880.2	880.5	880.7	883.1
22.5°	860.3	861.2	862.1	863.0	863.9	864.6	865.0	865.4	865.8	866.3	868.6
25°	833.9	835.3	836.8	838.2	839.6	840.7	841.4	842.1	842.8	843.5	846.1
27.5°	804.6	806.6	808.7	810.8	812.9	814.5	815.6	816.6	817.7	818.8	821.2
30°	785.0	786.9	788.8	790.7	792.6	794.3	796.0	797.6	799.3	800.9	803.5
32.5°	763.7	766.0	768.3	770.5	772.8	774.8	776.7	778.5	780.4	782.2	785.2
35°	729.7	732.5	735.4	738.2	741.0	743.6	746.0	748.4	750.7	753.1	756.4
37.5°	695.4	698.7	702.0	705.2	708.5	711.6	714.5	717.4	720.4	723.3	726.7
40°	673.3	676.4	679.4	682.5	685.6	688.8	692.1	695.4	698.7	702.0	705.6
42.5°	647.8	651.2	654.7	658.1	661.6	665.2	669.1	673.0	676.9	680.7	684.7
45°	608.4	612.9	617.4	621.9	626.4	630.9	635.4	639.9	644.3	648.8	652.9
47.5°	570.8	575.4	580.0	584.7	589.3	594.2	599.4	604.6	609.8	615.0	619.2
50°	543.5	548.7	553.9	559.1	564.3	569.5	574.7	579.9	585.1	590.3	595.1
52.5°	516.3	521.5	526.7	531.9	537.1	542.7	548.6	554.6	560.6	566.5	571.2
55°	476.5	481.5	486.5	491.4	496.4	502.4	509.5	516.6	523.7	530.8	535.5
57.5°	432.1	438.2	444.4	450.5	456.6	463.2	470.3	477.3	484.4	491.4	497.0
60°	403.1	409.3	415.4	421.6	427.7	434.7	442.5	450.3	458.1	465.9	471.3
62.5°	375.0	381.8	388.5	395.2	401.9	409.2	417.0	424.8	432.6	440.4	445.8
65°	329.7	337.3	344.9	352.4	360.0	367.8	375.8	383.9	391.9	399.9	405.8
67.5°	286.1	294.2	302.2	310.2	318.3	326.6	335.2	343.8	352.4	361.0	367.0
70°	256.3	264.4	272.4	280.5	288.5	297.0	306.0	315.0	323.9	332.9	339.3
72.5°	227.4	235.6	243.9	252.1	260.3	269.2	278.8	288.3	297.9	307.4	313.6
75°	183.0	191.7	200.4	209.2	217.9	227.3	237.2	247.1	257.1	267.0	273.6
77.5°	141.5	150.7	160.0	169.3	178.5	188.4	198.8	209.2	219.6	230.0	236.7
80°	115.9	125.4	134.8	144.3	153.8	163.7	174.1	184.5	194.9	205.3	212.4
82.5°	90.4	100.2	110.1	119.9	129.7	139.9	150.3	160.7	171.1	181.5	188.7
85°	56.4	66.3	76.2	86.2	96.1	106.4	117.0	127.6	138.3	148.9	156.0
87.5°	31.8	41.7	51.7	61.6	71.5	81.8	92.3	102.9	113.4	124.0	131.0
90°	18.7	29.6	40.4	51.3	62.1	73.1	84.3	95.5	106.7	117.9	125.5
92.5°	23.4	31.9	40.5	49.1	57.7	67.6	78.8	89.9	101.1	112.3	119.7
95°	45.2	48.7	52.2	55.7	59.2	65.8	75.6	85.5	95.3	105.1	112.2
97.5°	79.2	88.6	98.0	107.4	116.8	119.2	114.7	110.1	105.6	101.0	107.3
100°	105.3	113.7	122.1	130.5	139.0	139.0	130.8	122.5	114.2	105.9	110.2
102.5°	135.4	142.4	149.5	156.6	163.6	170.5	177.3	184.0	190.8	197.5	180.5
105°	181.3	186.8	192.2	197.7	203.2	210.7	220.0	229.4	238.8	248.2	255.2
107.5°	225.7	229.9	234.2	238.4	242.7	249.4	258.5	267.7	276.8	285.9	292.3
110°	254.9	258.6	262.3	266.0	269.7	276.1	285.1	294.1	303.2	312.2	317.9



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	283.3	286.9	290.5	294.1	297.8	303.7	311.9	320.2	328.4	336.7	341.9
115°	327.0	329.5	332.0	334.5	337.0	342.0	349.4	356.8	364.3	371.7	377.2
117.5°	367.2	369.0	370.8	372.6	374.4	378.9	386.3	393.6	400.9	408.2	413.1
120°	393.8	395.0	396.2	397.4	398.6	402.6	409.3	416.1	422.8	429.5	434.5
122.5°	419.3	419.8	420.2	420.7	421.1	424.7	431.3	438.0	444.6	451.3	456.2
125°	454.9	455.2	455.4	455.7	456.0	458.9	464.6	470.2	475.9	481.6	486.4
127.5°	489.4	489.3	489.1	489.0	488.9	491.4	496.5	501.7	506.8	511.9	516.1
130°	510.9	510.8	510.7	510.5	510.4	512.5	516.6	520.8	524.9	529.1	533.5
132.5°	531.4	531.4	531.4	531.4	531.4	533.1	536.6	540.1	543.6	547.2	551.3
135°	561.1	561.0	560.9	560.8	560.6	561.7	563.8	566.0	568.1	570.3	574.3
137.5°	588.4	588.2	588.0	587.9	587.7	588.3	589.6	591.0	592.3	593.7	597.4
140°	606.2	606.2	606.2	606.3	606.3	606.5	607.0	607.5	608.0	608.5	611.9
142.5°	621.3	621.7	622.1	622.6	623.0	623.2	623.2	623.2	623.2	623.2	626.2
145°	645.6	645.8	645.9	646.1	646.2	646.3	646.3	646.3	646.3	646.3	647.8
147.5°	665.2	665.6	666.1	666.6	667.0	667.2	667.1	667.0	666.8	666.7	667.0
150°	679.3	679.6	679.8	680.1	680.4	680.5	680.3	680.2	680.1	679.9	679.9
152.5°	690.3	690.7	691.0	691.4	691.7	691.8	691.6	691.4	691.1	690.9	691.1
155°	706.8	706.9	707.0	707.1	707.3	707.1	706.8	706.4	706.0	705.6	706.1
157.5°	720.8	720.7	720.6	720.6	720.5	720.2	719.8	719.4	718.9	718.5	719.2
160°	729.0	728.6	728.2	727.9	727.5	727.2	727.1	727.0	726.8	726.7	727.5
162.5°	736.3	735.8	735.3	734.9	734.4	734.1	733.9	733.8	733.7	733.6	734.3
165°	745.5	744.9	744.3	743.6	743.0	742.7	742.7	742.7	742.7	742.7	743.7
167.5°	752.8	752.2	751.5	750.9	750.2	749.8	749.8	749.7	749.6	749.5	750.7
170°	757.0	756.2	755.4	754.7	753.9	753.6	753.7	753.8	754.0	754.1	755.1
172.5°	759.7	758.9	758.2	757.4	756.7	756.3	756.5	756.6	756.7	756.8	757.9
175°	762.7	761.9	761.1	760.4	759.6	759.3	759.4	759.6	759.7	759.8	760.9
177.5°	764.0	763.3	762.6	761.9	761.2	760.9	761.1	761.3	761.5	761.7	762.6
180°	762.7	762.7	762.7	762.7	762.7	762.7	762.7	762.7	762.7	762.7	762.7



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	949.9	949.9	949.9	949.9	949.9	949.9	949.9	949.9
2.5°	946.5	947.9	949.2	949.8	949.6	949.4	949.2	949.0
5°	944.1	946.0	947.8	948.7	948.4	948.2	948.0	947.7
7.5°	939.0	941.1	943.3	944.2	944.0	943.7	943.5	943.3
10°	933.9	936.0	938.2	939.1	938.9	938.6	938.4	938.2
12.5°	926.7	928.7	930.6	931.5	931.5	931.4	931.4	931.3
15°	913.7	915.8	917.9	918.9	918.7	918.4	918.2	917.9
17.5°	897.8	900.0	902.2	903.2	903.0	902.8	902.6	902.4
20°	885.4	887.8	890.2	891.4	891.4	891.4	891.4	891.4
22.5°	871.0	873.3	875.7	877.1	877.5	877.8	878.2	878.6
25°	848.7	851.3	853.9	855.3	855.5	855.8	856.0	856.3
27.5°	823.6	826.0	828.5	829.8	830.1	830.4	830.7	830.9
30°	806.1	808.7	811.3	812.9	813.4	813.8	814.3	814.8
32.5°	788.2	791.2	794.1	795.9	796.3	796.8	797.3	797.8
35°	759.7	763.0	766.3	768.3	769.0	769.7	770.5	771.2
37.5°	730.0	733.4	736.7	738.8	739.5	740.3	741.0	741.8
40°	709.1	712.7	716.2	718.4	719.4	720.3	721.3	722.2
42.5°	688.6	692.5	696.4	698.8	699.5	700.3	701.1	701.8
45°	656.9	660.9	664.9	667.5	668.7	669.9	671.1	672.2
47.5°	623.3	627.5	631.7	634.4	635.9	637.3	638.7	640.1
50°	599.8	604.5	609.2	612.3	613.7	615.2	616.6	618.0
52.5°	576.0	580.7	585.4	588.5	589.9	591.3	592.7	594.2
55°	540.2	545.0	549.7	552.8	554.2	555.6	557.0	558.4
57.5°	502.7	508.3	513.9	517.4	518.7	520.0	521.4	522.7
60°	476.8	482.2	487.6	491.3	493.2	495.1	497.0	498.9
62.5°	451.2	456.7	462.1	465.8	467.7	469.6	471.4	473.3
65°	411.8	417.7	423.6	427.5	429.4	431.3	433.1	435.0
67.5°	373.0	379.0	385.0	388.9	390.8	392.6	394.5	396.3
70°	345.7	352.1	358.5	362.5	364.1	365.8	367.4	369.1
72.5°	319.8	326.0	332.2	336.2	338.0	339.9	341.7	343.6
75°	280.2	286.8	293.5	297.8	300.0	302.1	304.2	306.3
77.5°	243.4	250.1	256.8	261.3	263.6	265.8	268.1	270.4
80°	219.5	226.6	233.7	238.1	240.0	241.9	243.8	245.7
82.5°	196.0	203.3	210.6	215.3	217.3	219.4	221.5	223.6
85°	163.1	170.2	177.3	182.0	184.4	186.7	189.1	191.5
87.5°	138.0	145.0	152.0	156.6	158.7	160.8	163.0	165.1
90°	133.1	140.7	148.3	153.2	155.3	157.5	159.6	161.8
92.5°	127.1	134.6	142.0	146.7	148.6	150.6	152.5	154.4
95°	119.4	126.5	133.7	138.4	140.6	142.9	145.1	147.4
97.5°	113.5	119.8	126.1	130.3	132.5	134.6	136.8	138.9
100°	114.4	118.6	122.8	125.9	127.6	129.4	131.2	133.0
102.5°	163.4	146.3	129.3	121.7	123.6	125.4	127.3	129.2
105°	262.3	269.3	276.4	278.6	275.9	273.2	270.5	267.9
107.5°	298.7	305.0	311.4	315.7	317.9	320.1	322.2	324.4
110°	323.6	329.3	334.9	338.9	341.2	343.5	345.7	348.0



TEST NUMBER: P332592

CATALOG NUMBER: S124DIP-S795D590U835-4F0-1E-UDD-D

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	347.1	352.3	357.5	361.3	363.6	366.0	368.4	370.7
115°	382.6	388.1	393.5	397.1	398.7	400.4	402.0	403.7
117.5°	418.0	422.8	427.7	431.0	432.9	434.7	436.6	438.4
120°	439.5	444.5	449.5	452.8	454.4	456.0	457.7	459.3
122.5°	461.0	465.9	470.8	474.0	475.4	476.9	478.3	479.8
125°	491.3	496.2	501.0	504.3	505.8	507.3	508.9	510.4
127.5°	520.3	524.4	528.6	531.5	533.0	534.5	536.0	537.5
130°	537.9	542.3	546.6	549.5	551.0	552.4	553.8	555.2
132.5°	555.5	559.7	563.9	566.7	568.0	569.3	570.6	571.9
135°	578.4	582.4	586.4	589.3	591.0	592.6	594.3	596.0
137.5°	601.2	604.9	608.6	611.0	612.1	613.3	614.4	615.5
140°	615.4	618.8	622.3	624.7	626.0	627.3	628.6	629.9
142.5°	629.2	632.1	635.1	637.1	638.1	639.1	640.2	641.2
145°	649.4	650.9	652.5	653.8	655.0	656.2	657.4	658.6
147.5°	667.3	667.6	667.9	668.5	669.3	670.2	671.1	672.0
150°	679.9	679.9	679.9	680.0	680.1	680.3	680.4	680.5
152.5°	691.3	691.5	691.7	691.8	691.7	691.6	691.5	691.5
155°	706.6	707.1	707.6	707.7	707.3	706.9	706.6	706.2
157.5°	719.8	720.5	721.1	721.1	720.5	719.8	719.2	718.5
160°	728.2	729.0	729.8	729.8	729.0	728.2	727.5	726.7
162.5°	735.1	735.8	736.6	736.6	735.7	734.8	734.0	733.1
165°	744.7	745.7	746.8	746.7	745.5	744.4	743.3	742.1
167.5°	751.8	752.9	754.0	753.9	752.7	751.4	750.1	748.9
170°	756.1	757.1	758.2	758.0	756.8	755.5	754.2	753.0
172.5°	758.9	759.9	760.9	760.7	759.4	758.0	756.6	755.2
175°	762.1	763.2	764.4	764.2	762.7	761.1	759.6	758.1
177.5°	763.4	764.2	765.0	764.8	763.6	762.4	761.1	759.9
180°	762.7	762.7	762.7	762.7	762.7	762.7	762.7	762.7

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