

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: P332592-840

Luminaire Tested: **S124DIP-S795D590U840-4F0-1E-UDD-D**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P332592-840
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-S795D590U840-4F0-1E-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: 5654.5 lumens
Efficiency: N/A
Efficacy: 140.3 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

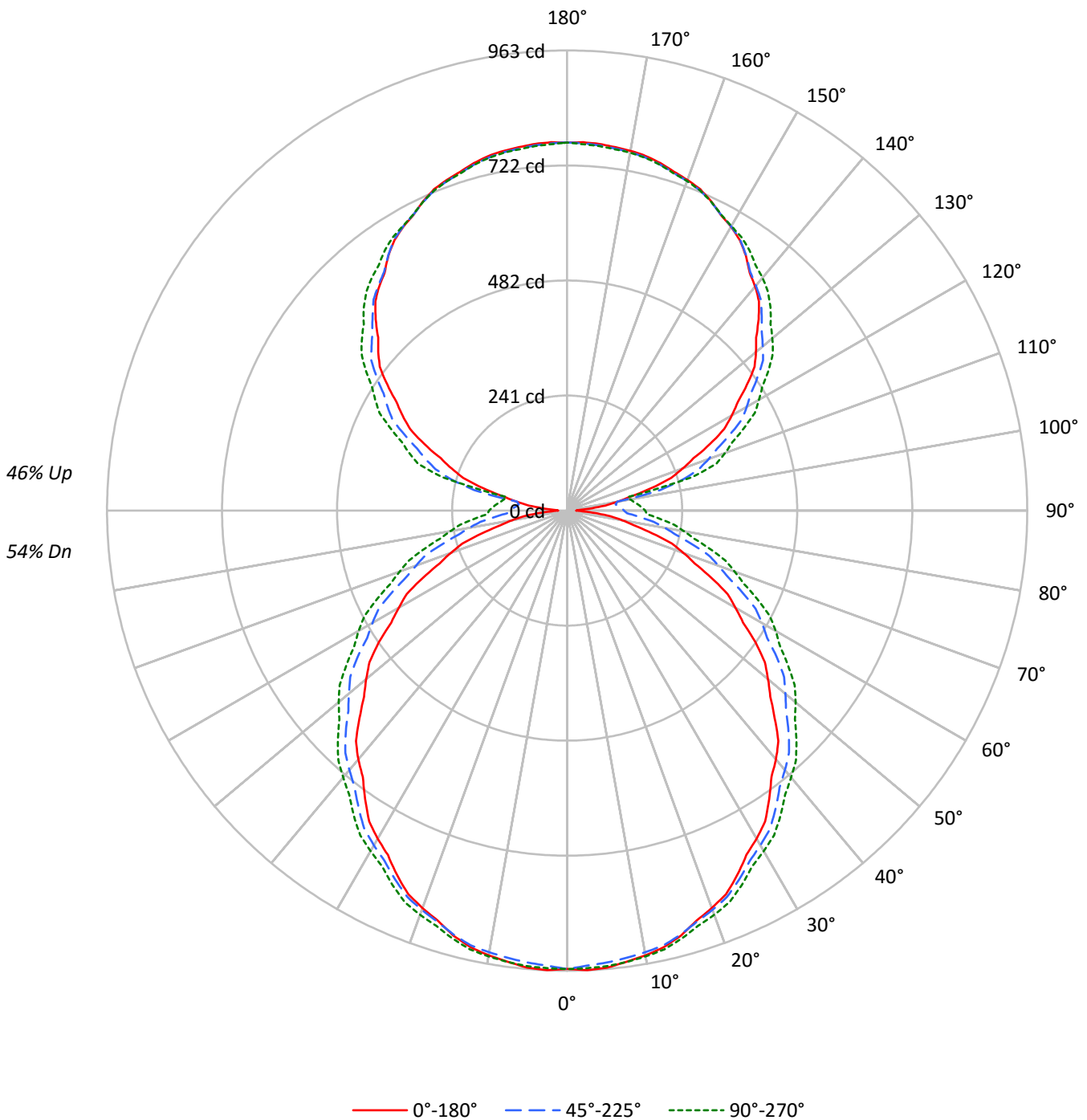
Input Watts (W): 40.3
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





TEST NUMBER: P332592-840

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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°	7744	7744	7744
5°	7768	7569	7589
10°	7720	7444	7439
15°	7651	7301	7261
20°	7547	7143	7089
25°	7429	6965	6898
30°	7302	6789	6703
35°	7158	6609	6532
40°	7042	6436	6353
45°	6871	6278	6200
50°	6727	6095	6039
55°	6577	5924	5849
60°	6344	5704	5676
65°	6089	5468	5463
70°	5778	5200	5215
75°	5348	4904	4991
80°	4865	4620	4771
85°	4264	4369	4644



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	90.8	1.6
10°-20°	260.3	4.6
20°-30°	393.5	7.0
30°-40°	476.1	8.4
40°-50°	503.4	8.9
50°-60°	473.7	8.4
60°-70°	393.1	7.0
70°-80°	276.1	4.9
80°-90°	158.3	2.8
90°-100°	119.0	2.1
100°-110°	236.6	4.2
110°-120°	367.3	6.5
120°-130°	433.8	7.7
130°-140°	447.6	7.9
140°-150°	410.3	7.3
150°-160°	329.1	5.8
160°-170°	212.2	3.8
170°-180°	73.2	1.3
0°-30°	744.6	13.2
0°-40°	1220.8	21.6
0°-60°	2197.9	38.9
0°-90°	3025.3	53.5
90°-120°	722.9	12.8
90°-150°	2014.7	35.6
90°-180°	2629.0	46.5
0°-180°	5654.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	959	959	959	959	959	
5°	960	957	950	958	957	91
15°	921	921	918	928	927	259
25°	842	848	852	863	865	388
35°	737	750	760	775	779	461
45°	614	635	655	673	679	475
55°	481	504	536	557	564	429
65°	333	368	404	430	439	330
75°	185	225	270	299	309	196
85°	57	102	150	181	193	61
90°	19	68	119	152	163	13
95°	46	63	106	137	149	52
105°	183	209	251	280	270	192
115°	330	343	375	399	408	325
125°	459	462	486	508	515	410
135°	567	567	576	594	602	437
145°	652	653	653	660	665	407
155°	714	714	713	715	713	329
165°	753	750	750	754	749	213
175°	770	767	767	772	766	73
180°	770	770	770	770	770	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	959.3	959.3	959.3	959.3	959.3	959.3	959.3	959.3	959.3	959.3	959.3
2.5°	962.7	962.1	961.5	961.0	960.4	959.4	957.8	956.2	954.7	953.2	954.5
5°	960.3	959.6	958.9	958.2	957.5	956.2	954.5	952.9	951.2	949.6	951.5
7.5°	952.1	951.7	951.3	950.9	950.4	949.5	948.2	946.7	945.3	944.0	946.1
10°	945.2	945.0	944.8	944.5	944.3	943.6	942.4	941.2	940.0	938.8	941.0
12.5°	935.8	935.7	935.7	935.6	935.6	935.2	934.4	933.5	932.7	931.9	933.9
15°	920.6	920.8	921.0	921.3	921.5	921.3	920.6	919.9	919.1	918.4	920.6
17.5°	899.7	900.4	901.1	901.9	902.6	902.8	902.7	902.6	902.4	902.3	904.5
20°	885.1	885.9	886.6	887.3	888.0	888.5	888.7	888.9	889.2	889.4	891.8
22.5°	868.8	869.7	870.6	871.5	872.4	873.1	873.5	873.9	874.3	874.8	877.2
25°	842.1	843.5	845.1	846.5	847.9	849.0	849.7	850.4	851.1	851.8	854.4
27.5°	812.5	814.6	816.7	818.8	820.9	822.5	823.6	824.7	825.8	826.9	829.3
30°	792.7	794.7	796.6	798.5	800.4	802.1	803.9	805.5	807.2	808.8	811.4
32.5°	771.2	773.6	775.9	778.1	780.4	782.4	784.4	786.2	788.1	789.9	792.9
35°	736.9	739.7	742.7	745.5	748.3	750.9	753.4	755.8	758.1	760.5	763.9
37.5°	702.3	705.6	708.9	712.2	715.5	718.6	721.5	724.5	727.5	730.4	733.9
40°	679.9	683.1	686.1	689.2	692.4	695.6	698.9	702.3	705.6	708.9	712.6
42.5°	654.2	657.6	661.2	664.6	668.1	671.8	675.7	679.6	683.6	687.4	691.5
45°	614.4	618.9	623.5	628.0	632.6	637.1	641.7	646.2	650.7	655.2	659.3
47.5°	576.4	581.1	585.7	590.5	595.1	600.1	605.3	610.6	615.8	621.1	625.3
50°	548.9	554.1	559.4	564.6	569.9	575.1	580.4	585.6	590.9	596.1	601.0
52.5°	521.4	526.6	531.9	537.1	542.4	548.1	554.0	560.1	566.1	572.1	576.8
55°	481.2	486.3	491.3	496.2	501.3	507.4	514.5	521.7	528.9	536.0	540.8
57.5°	436.4	442.5	448.8	454.9	461.1	467.8	474.9	482.0	489.2	496.2	501.9
60°	407.1	413.3	419.5	425.8	431.9	439.0	446.9	454.7	462.6	470.5	475.9
62.5°	378.7	385.6	392.3	399.1	405.9	413.2	421.1	429.0	436.9	444.7	450.2
65°	333.0	340.6	348.3	355.9	363.6	371.4	379.5	387.7	395.8	403.8	409.8
67.5°	288.9	297.1	305.2	313.3	321.4	329.8	338.5	347.2	355.9	364.6	370.6
70°	258.8	267.0	275.1	283.3	291.3	299.9	309.0	318.1	327.1	336.2	342.6
72.5°	229.6	237.9	246.3	254.6	262.9	271.9	281.6	291.1	300.8	310.4	316.7
75°	184.8	193.6	202.4	211.3	220.0	229.5	239.5	249.5	259.6	269.6	276.3
77.5°	142.9	152.2	161.6	171.0	180.3	190.3	200.8	211.3	221.8	232.3	239.0
80°	117.0	126.6	136.1	145.7	155.3	165.3	175.8	186.3	196.8	207.3	214.5
82.5°	91.3	101.2	111.2	121.1	131.0	141.3	151.8	162.3	172.8	183.3	190.6
85°	57.0	67.0	77.0	87.1	97.0	107.4	118.2	128.9	139.7	150.4	157.5
87.5°	32.1	42.1	52.2	62.2	72.2	82.6	93.2	103.9	114.5	125.2	132.3
90°	18.9	29.9	40.8	51.8	62.7	73.8	85.1	96.4	107.8	119.1	126.7
92.5°	23.6	32.2	40.9	49.6	58.3	68.3	79.6	90.8	102.1	113.4	120.9
95°	45.6	49.2	52.7	56.2	59.8	66.4	76.3	86.3	96.2	106.1	113.3
97.5°	80.0	89.5	99.0	108.5	118.0	120.4	115.8	111.2	106.6	102.0	108.4
100°	106.3	114.8	123.3	131.8	140.4	140.4	132.1	123.7	115.3	106.9	111.3
102.5°	136.7	143.8	151.0	158.1	165.2	172.2	179.0	185.8	192.7	199.4	182.3
105°	183.1	188.6	194.1	199.7	205.2	212.8	222.2	231.7	241.2	250.6	257.7
107.5°	227.9	232.2	236.5	240.8	245.1	251.9	261.1	270.3	279.5	288.7	295.2
110°	257.4	261.2	264.9	268.6	272.4	278.8	287.9	297.0	306.2	315.3	321.0



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	286.1	289.7	293.4	297.0	300.7	306.7	315.0	323.4	331.6	340.0	345.3
115°	330.2	332.8	335.3	337.8	340.3	345.4	352.8	360.3	367.9	375.4	380.9
117.5°	370.8	372.6	374.5	376.3	378.1	382.6	390.1	397.5	404.9	412.2	417.2
120°	397.7	398.9	400.1	401.3	402.5	406.6	413.3	420.2	427.0	433.7	438.8
122.5°	423.4	423.9	424.3	424.9	425.3	428.9	435.6	442.3	449.0	455.8	460.7
125°	459.4	459.7	459.9	460.2	460.5	463.4	469.2	474.8	480.6	486.4	491.2
127.5°	494.2	494.1	493.9	493.8	493.7	496.2	501.4	506.6	511.8	516.9	521.2
130°	515.9	515.8	515.7	515.5	515.4	517.6	521.7	525.9	530.1	534.3	538.8
132.5°	536.6	536.6	536.6	536.6	536.6	538.4	541.9	545.4	549.0	552.6	556.7
135°	566.6	566.5	566.4	566.3	566.1	567.2	569.4	571.6	573.7	575.9	580.0
137.5°	594.2	594.0	593.8	593.7	593.5	594.1	595.4	596.8	598.1	599.6	603.3
140°	612.2	612.2	612.2	612.3	612.3	612.5	613.0	613.5	614.0	614.5	617.9
142.5°	627.4	627.8	628.2	628.7	629.1	629.3	629.3	629.3	629.3	629.3	632.4
145°	652.0	652.2	652.3	652.5	652.6	652.7	652.7	652.7	652.7	652.7	654.2
147.5°	671.8	672.2	672.7	673.2	673.6	673.8	673.7	673.6	673.4	673.3	673.6
150°	686.0	686.3	686.5	686.8	687.1	687.2	687.0	686.9	686.8	686.6	686.6
152.5°	697.1	697.5	697.8	698.2	698.5	698.6	698.4	698.2	697.9	697.7	697.9
155°	713.8	713.9	714.0	714.1	714.3	714.1	713.8	713.4	713.0	712.6	713.1
157.5°	727.9	727.8	727.7	727.7	727.6	727.3	726.9	726.5	726.0	725.6	726.3
160°	736.2	735.8	735.4	735.1	734.7	734.4	734.3	734.2	734.0	733.9	734.7
162.5°	743.6	743.1	742.6	742.1	741.6	741.3	741.1	741.0	740.9	740.8	741.5
165°	752.9	752.2	751.6	750.9	750.3	750.0	750.0	750.0	750.0	750.0	751.0
167.5°	760.2	759.6	758.9	758.3	757.6	757.2	757.2	757.1	757.0	756.9	758.1
170°	764.5	763.7	762.9	762.1	761.3	761.0	761.1	761.2	761.4	761.5	762.5
172.5°	767.2	766.4	765.7	764.9	764.2	763.8	764.0	764.1	764.2	764.3	765.4
175°	770.2	769.4	768.6	767.9	767.1	766.8	766.9	767.1	767.2	767.3	768.4
177.5°	771.5	770.8	770.1	769.4	768.7	768.4	768.6	768.8	769.0	769.2	770.1
180°	770.2	770.2	770.2	770.2	770.2	770.2	770.2	770.2	770.2	770.2	770.2



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	959.3	959.3	959.3	959.3	959.3	959.3	959.3	959.3
2.5°	955.8	957.3	958.6	959.2	959.0	958.8	958.6	958.4
5°	953.4	955.3	957.2	958.1	957.8	957.6	957.4	957.0
7.5°	948.3	950.4	952.6	953.5	953.3	953.0	952.8	952.6
10°	943.1	945.2	947.5	948.4	948.2	947.9	947.7	947.5
12.5°	935.8	937.9	939.8	940.7	940.7	940.6	940.6	940.5
15°	922.7	924.8	927.0	928.0	927.8	927.5	927.3	927.0
17.5°	906.7	908.9	911.1	912.1	911.9	911.7	911.5	911.3
20°	894.1	896.6	899.0	900.2	900.2	900.2	900.2	900.2
22.5°	879.6	881.9	884.3	885.8	886.2	886.5	886.9	887.3
25°	857.1	859.7	862.3	863.7	863.9	864.2	864.4	864.7
27.5°	831.7	834.1	836.7	838.0	838.3	838.6	838.9	839.1
30°	814.1	816.7	819.3	820.9	821.4	821.8	822.3	822.8
32.5°	796.0	799.0	801.9	803.8	804.2	804.7	805.2	805.7
35°	767.2	770.5	773.9	775.9	776.6	777.3	778.1	778.8
37.5°	737.2	740.6	744.0	746.1	746.8	747.6	748.3	749.1
40°	716.1	719.7	723.3	725.5	726.5	727.4	728.4	729.3
42.5°	695.4	699.3	703.3	705.7	706.4	707.2	708.0	708.7
45°	663.4	667.4	671.5	674.1	675.3	676.5	677.7	678.8
47.5°	629.4	633.7	637.9	640.7	642.2	643.6	645.0	646.4
50°	605.7	610.5	615.2	618.3	619.8	621.3	622.7	624.1
52.5°	581.7	586.4	591.2	594.3	595.7	597.1	598.5	600.1
55°	545.5	550.4	555.1	558.3	559.7	561.1	562.5	563.9
57.5°	507.7	513.3	519.0	522.5	523.8	525.1	526.5	527.9
60°	481.5	487.0	492.4	496.1	498.1	500.0	501.9	503.8
62.5°	455.7	461.2	466.7	470.4	472.3	474.2	476.1	478.0
65°	415.9	421.8	427.8	431.7	433.6	435.6	437.4	439.3
67.5°	376.7	382.7	388.8	392.7	394.7	396.5	398.4	400.2
70°	349.1	355.6	362.0	366.1	367.7	369.4	371.0	372.7
72.5°	323.0	329.2	335.5	339.5	341.3	343.3	345.1	347.0
75°	283.0	289.6	296.4	300.7	303.0	305.1	307.2	309.3
77.5°	245.8	252.6	259.3	263.9	266.2	268.4	270.7	273.1
80°	221.7	228.8	236.0	240.4	242.4	244.3	246.2	248.1
82.5°	197.9	205.3	212.7	217.4	219.4	221.6	223.7	225.8
85°	164.7	171.9	179.0	183.8	186.2	188.5	191.0	193.4
87.5°	139.4	146.4	153.5	158.1	160.3	162.4	164.6	166.7
90°	134.4	142.1	149.8	154.7	156.8	159.1	161.2	163.4
92.5°	128.4	135.9	143.4	148.1	150.1	152.1	154.0	155.9
95°	120.6	127.7	135.0	139.8	142.0	144.3	146.5	148.9
97.5°	114.6	121.0	127.3	131.6	133.8	135.9	138.1	140.3
100°	115.5	119.8	124.0	127.1	128.9	130.7	132.5	134.3
102.5°	165.0	147.7	130.6	122.9	124.8	126.6	128.6	130.5
105°	264.9	272.0	279.1	281.3	278.6	275.9	273.2	270.5
107.5°	301.6	308.0	314.5	318.8	321.0	323.3	325.4	327.6
110°	326.8	332.5	338.2	342.2	344.6	346.9	349.1	351.4



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CATALOG NUMBER: S124DIP-S795D590U840-4F0-1E-UDD-D

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	350.5	355.8	361.0	364.9	367.2	369.6	372.0	374.4
115°	386.4	391.9	397.4	401.0	402.6	404.3	406.0	407.7
117.5°	422.1	427.0	431.9	435.3	437.2	439.0	440.9	442.7
120°	443.8	448.9	453.9	457.3	458.9	460.5	462.2	463.8
122.5°	465.5	470.5	475.4	478.7	480.1	481.6	483.0	484.5
125°	496.1	501.1	505.9	509.3	510.8	512.3	513.9	515.4
127.5°	525.4	529.6	533.8	536.7	538.3	539.8	541.3	542.8
130°	543.2	547.6	552.0	554.9	556.4	557.8	559.3	560.7
132.5°	561.0	565.2	569.5	572.3	573.6	574.9	576.2	577.5
135°	584.1	588.1	592.2	595.1	596.8	598.4	600.2	601.9
137.5°	607.1	610.9	614.6	617.0	618.1	619.4	620.5	621.6
140°	621.5	624.9	628.4	630.9	632.2	633.5	634.8	636.1
142.5°	635.4	638.3	641.4	643.4	644.4	645.4	646.5	647.5
145°	655.8	657.3	658.9	660.2	661.5	662.7	663.9	665.1
147.5°	673.9	674.2	674.5	675.1	675.9	676.8	677.7	678.6
150°	686.6	686.6	686.6	686.7	686.8	687.0	687.1	687.2
152.5°	698.1	698.3	698.5	698.6	698.5	698.4	698.3	698.3
155°	713.6	714.1	714.6	714.7	714.3	713.9	713.6	713.2
157.5°	726.9	727.6	728.2	728.2	727.6	726.9	726.3	725.6
160°	735.4	736.2	737.0	737.0	736.2	735.4	734.7	733.9
162.5°	742.4	743.1	743.9	743.9	743.0	742.0	741.2	740.3
165°	752.0	753.1	754.2	754.1	752.9	751.7	750.6	749.4
167.5°	759.2	760.3	761.4	761.3	760.1	758.8	757.5	756.3
170°	763.6	764.6	765.7	765.5	764.3	763.0	761.6	760.4
172.5°	766.4	767.4	768.4	768.2	766.9	765.5	764.1	762.7
175°	769.6	770.7	771.9	771.7	770.2	768.6	767.1	765.6
177.5°	770.9	771.7	772.5	772.3	771.1	769.9	768.6	767.4
180°	770.2	770.2	770.2	770.2	770.2	770.2	770.2	770.2

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