

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: P332601-940

Luminaire Tested: **S124DIP-S795D810U940-4F0-1E-UDD-D**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P332601-940  
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-S795D810U940-4F0-1E-UDD-D  
Description: DEFINE 4 DIRECT-INDIRECT PENDANT LED LUMINAIRE  
DOWNLIGHT 795 LUMENS PER FOOT, DROP SATIN WHITE DIFFUSER  
UPLIGHT 810 LUMENS PER FOOT, NO LENS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 5773.5 lumens  
Efficiency: N/A  
Efficacy: 125.8 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

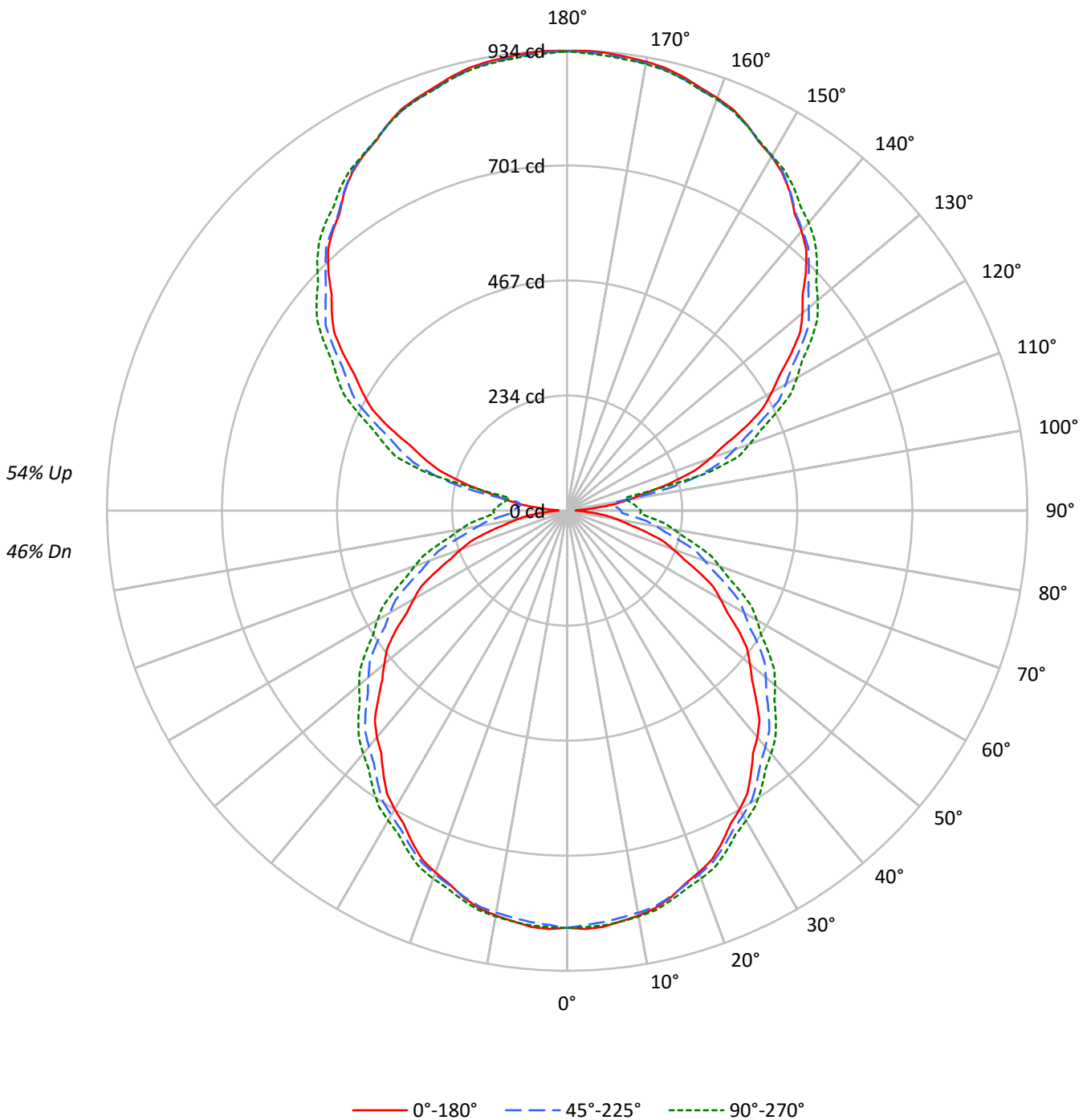
Input Watts (W): 45.9  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Luminous Intensity Polar Plot





TEST NUMBER: P332601-940

CATALOG NUMBER: S124DIP-S795D810U940-4F0-1E-UDD-D

**COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:**

RF	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	50	30	10	0														
RCR																																						
0	106	106	106	106	98	98	98	98	81	81	81	66	66	66	53	53	53	46																				
1	96	91	87	83	88	84	80	77	70	67	65	57	55	53	45	44	43	37																				
2	87	79	73	67	79	73	67	62	61	56	53	49	46	44	39	37	35	30																				
3	79	69	62	55	72	64	57	52	53	48	44	43	40	37	34	32	29	25																				
4	72	61	53	47	66	56	49	43	47	41	37	38	34	31	30	28	25	21																				
5	66	54	46	40	60	50	43	37	42	36	32	34	30	27	27	24	22	18																				
6	61	48	40	34	55	45	37	32	38	32	28	31	27	23	25	21	19	16																				
7	56	44	36	30	51	40	33	28	34	28	24	28	24	20	22	19	17	14																				
8	52	40	32	26	48	37	30	25	31	25	21	26	21	18	21	17	15	12																				
9	48	36	28	23	44	33	27	22	28	23	19	24	19	16	19	16	13	11																				
10	45	33	26	21	41	31	24	20	26	21	17	22	18	15	18	14	12	10																				

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

	0°	45°	90°
0°	6838	6838	6838
5°	6859	6683	6702
10°	6817	6573	6568
15°	6756	6446	6411
20°	6664	6307	6259
25°	6560	6151	6092
30°	6448	5995	5919
35°	6321	5835	5768
40°	6219	5684	5610
45°	6067	5543	5475
50°	5939	5383	5333
55°	5808	5231	5164
60°	5601	5036	5013
65°	5376	4829	4824
70°	5101	4592	4605
75°	4723	4331	4407
80°	4295	4081	4213
85°	3763	3857	4101



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	80.2	1.4
10°-20°	229.8	4.0
20°-30°	347.5	6.0
30°-40°	420.4	7.3
40°-50°	444.5	7.7
50°-60°	418.3	7.2
60°-70°	347.1	6.0
70°-80°	243.8	4.2
80°-90°	140.5	2.4
90°-100°	113.7	2.0
100°-110°	263.9	4.6
110°-120°	429.5	7.4
120°-130°	516.6	8.9
130°-140°	538.1	9.3
140°-150°	495.9	8.6
150°-160°	398.3	6.9
160°-170°	256.9	4.4
170°-180°	88.5	1.5
0°-30°	657.5	11.4
0°-40°	1077.9	18.7
0°-60°	1940.7	33.6
0°-90°	2672.1	46.3
90°-120°	807.1	14.0
90°-150°	2357.7	40.8
90°-180°	3101.0	53.7
0°-180°	5773.5	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	847	847	847	847	847	
5°	848	845	838	846	845	80
15°	813	814	811	819	818	229
25°	744	749	752	762	764	342
35°	651	662	672	684	688	407
45°	542	561	578	594	599	419
55°	425	445	473	492	498	378
65°	294	324	357	379	388	291
75°	163	198	238	264	273	174
85°	50	90	133	160	171	54
90°	17	63	109	140	150	12
95°	51	60	98	126	137	59
105°	218	242	280	307	293	229
115°	398	409	438	459	467	391
125°	555	558	579	598	605	495
135°	685	685	694	710	718	528
145°	789	790	790	796	802	493
155°	864	864	862	865	863	398
165°	911	908	908	913	907	257
175°	932	928	929	934	927	89
180°	932	932	932	932	932	



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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	847.0	847.0	847.0	847.0	847.0	847.0	847.0	847.0	847.0	847.0	847.0
2.5°	850.1	849.5	849.0	848.6	848.0	847.1	845.7	844.4	843.0	841.7	842.8
5°	847.9	847.3	846.7	846.1	845.4	844.4	842.8	841.4	839.9	838.5	840.2
7.5°	840.7	840.3	840.0	839.6	839.2	838.4	837.2	836.0	834.7	833.6	835.4
10°	834.6	834.5	834.3	834.0	833.8	833.2	832.1	831.1	830.0	828.9	830.9
12.5°	826.3	826.3	826.3	826.2	826.2	825.8	825.1	824.3	823.6	822.9	824.7
15°	812.9	813.1	813.2	813.5	813.7	813.5	812.9	812.3	811.5	810.9	812.9
17.5°	794.4	795.0	795.7	796.4	797.0	797.2	797.1	797.0	796.8	796.7	798.7
20°	781.6	782.2	782.8	783.5	784.1	784.5	784.7	784.9	785.2	785.3	787.5
22.5°	767.1	767.9	768.7	769.5	770.3	771.0	771.3	771.7	772.0	772.5	774.5
25°	743.6	744.8	746.2	747.4	748.7	749.7	750.3	750.9	751.5	752.2	754.5
27.5°	717.5	719.3	721.1	723.0	724.9	726.3	727.3	728.2	729.2	730.1	732.3
30°	700.0	701.7	703.4	705.1	706.8	708.3	709.8	711.2	712.7	714.2	716.5
32.5°	681.0	683.1	685.1	687.1	689.1	690.9	692.6	694.2	695.9	697.5	700.2
35°	650.7	653.2	655.8	658.3	660.8	663.1	665.2	667.4	669.4	671.5	674.5
37.5°	620.1	623.0	626.0	628.8	631.8	634.5	637.1	639.7	642.4	645.0	648.0
40°	600.4	603.2	605.8	608.6	611.4	614.2	617.2	620.1	623.0	626.0	629.2
42.5°	577.7	580.7	583.8	586.8	590.0	593.2	596.6	600.1	603.6	607.0	610.6
45°	542.5	546.5	550.5	554.6	558.6	562.6	566.6	570.6	574.5	578.5	582.2
47.5°	509.0	513.1	517.2	521.4	525.5	529.9	534.5	539.1	543.8	548.4	552.1
50°	484.6	489.3	493.9	498.6	503.2	507.8	512.5	517.1	521.7	526.4	530.7
52.5°	460.4	465.0	469.7	474.3	478.9	483.9	489.2	494.5	499.9	505.2	509.3
55°	424.9	429.4	433.8	438.2	442.6	448.0	454.3	460.7	467.0	473.3	477.5
57.5°	385.3	390.7	396.3	401.7	407.2	413.0	419.4	425.6	431.9	438.2	443.2
60°	359.4	365.0	370.4	375.9	381.4	387.6	394.6	401.5	408.5	415.4	420.3
62.5°	334.4	340.5	346.4	352.4	358.4	364.9	371.8	378.8	385.8	392.7	397.5
65°	294.0	300.8	307.6	314.2	321.0	328.0	335.1	342.3	349.5	356.6	361.9
67.5°	255.1	262.3	269.5	276.6	283.8	291.2	298.9	306.6	314.2	321.9	327.3
70°	228.5	235.8	242.9	250.1	257.3	264.8	272.9	280.9	288.8	296.9	302.6
72.5°	202.8	210.1	217.5	224.8	232.1	240.0	248.6	257.1	265.6	274.1	279.6
75°	163.2	170.9	178.7	186.5	194.3	202.7	211.5	220.3	229.3	238.1	244.0
77.5°	126.2	134.4	142.7	151.0	159.2	168.0	177.3	186.5	195.8	205.1	211.1
80°	103.3	111.8	120.2	128.7	137.1	146.0	155.2	164.5	173.8	183.1	189.4
82.5°	80.6	89.3	98.2	106.9	115.7	124.8	134.0	143.3	152.6	161.8	168.3
85°	50.3	59.1	67.9	76.9	85.7	94.9	104.3	113.8	123.3	132.8	139.1
87.5°	28.5	37.5	46.4	55.3	64.3	73.5	82.9	92.4	101.9	111.4	117.7
90°	17.3	27.4	37.5	47.7	57.8	68.0	78.3	88.6	99.0	109.2	116.3
92.5°	23.2	30.9	38.5	46.3	53.9	63.0	73.2	83.6	93.8	104.2	111.0
95°	50.6	52.3	54.0	55.7	57.4	62.7	71.4	80.3	89.1	97.8	104.5
97.5°	92.6	101.9	111.2	120.5	129.7	130.0	121.3	112.5	103.8	95.1	100.7
100°	124.8	133.0	141.3	149.6	157.8	155.4	142.2	129.1	115.9	102.7	105.8
102.5°	161.6	168.4	175.3	182.2	189.0	195.0	200.3	205.5	210.8	216.1	193.2
105°	218.4	223.6	228.7	233.8	239.0	245.8	254.4	263.0	271.5	280.2	286.8
107.5°	272.8	276.7	280.5	284.5	288.4	294.6	303.0	311.5	319.9	328.3	334.2
110°	308.8	312.2	315.6	319.1	322.4	328.3	336.6	344.9	353.2	361.5	366.7



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	343.8	347.1	350.6	354.1	357.5	363.0	370.5	377.9	385.4	392.9	397.5
115°	397.5	399.9	402.3	404.7	407.0	411.4	418.0	424.6	431.2	437.8	442.7
117.5°	446.8	448.6	450.3	452.1	453.9	458.1	464.7	471.3	478.0	484.6	488.8
120°	479.6	480.8	482.1	483.3	484.6	488.1	494.1	500.1	506.0	512.0	516.5
122.5°	510.8	511.3	511.8	512.3	512.8	516.0	522.0	528.0	534.0	540.0	544.4
125°	554.6	555.0	555.4	555.8	556.2	558.9	563.9	568.8	573.8	578.7	583.3
127.5°	596.8	596.7	596.6	596.6	596.6	599.0	603.7	608.4	613.2	618.0	621.7
130°	623.4	623.3	623.2	623.2	623.1	625.0	628.8	632.8	636.6	640.4	644.4
132.5°	648.5	648.5	648.6	648.7	648.7	650.4	653.7	657.0	660.3	663.6	667.4
135°	685.2	685.0	684.8	684.7	684.6	685.5	687.6	689.7	691.8	693.9	697.6
137.5°	718.5	718.4	718.2	718.1	717.9	718.5	720.0	721.3	722.7	724.2	727.5
140°	740.2	740.4	740.5	740.6	740.7	740.9	741.5	742.0	742.5	743.1	746.3
142.5°	759.0	759.6	760.0	760.5	761.1	761.3	761.4	761.5	761.5	761.6	764.4
145°	788.8	789.1	789.3	789.6	789.8	790.0	790.0	790.0	790.0	790.0	791.4
147.5°	812.6	813.3	814.0	814.7	815.3	815.6	815.4	815.2	815.0	814.9	815.2
150°	829.9	830.4	830.7	831.2	831.6	831.7	831.5	831.4	831.3	831.1	831.1
152.5°	843.6	844.2	844.6	845.1	845.5	845.6	845.3	845.1	844.7	844.5	844.7
155°	863.9	864.0	864.2	864.3	864.5	864.3	863.9	863.4	862.9	862.5	863.1
157.5°	881.0	880.9	880.8	880.7	880.7	880.3	879.8	879.3	878.8	878.2	879.0
160°	891.1	890.6	890.1	889.7	889.2	888.9	888.8	888.6	888.4	888.2	889.2
162.5°	900.0	899.4	898.8	898.2	897.6	897.2	897.1	897.0	896.8	896.6	897.6
165°	911.2	910.5	909.7	908.9	908.2	907.8	907.8	907.8	907.8	907.8	909.0
167.5°	920.2	919.4	918.6	917.7	916.9	916.5	916.4	916.3	916.2	916.1	917.5
170°	925.2	924.3	923.4	922.4	921.5	921.1	921.2	921.4	921.6	921.8	922.9
172.5°	928.5	927.6	926.7	925.8	924.9	924.4	924.6	924.8	924.9	925.1	926.3
175°	932.2	931.2	930.3	929.4	928.4	928.1	928.3	928.4	928.5	928.7	930.1
177.5°	933.9	933.0	932.1	931.2	930.4	930.1	930.3	930.6	930.9	931.0	932.0
180°	932.2	932.2	932.2	932.2	932.2	932.2	932.2	932.2	932.2	932.2	932.2



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**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
0°	847.0	847.0	847.0	847.0	847.0	847.0	847.0	847.0
2.5°	844.0	845.3	846.4	846.9	846.8	846.6	846.4	846.2
5°	841.9	843.6	845.2	846.0	845.7	845.5	845.3	845.1
7.5°	837.3	839.2	841.2	842.0	841.8	841.5	841.3	841.2
10°	832.8	834.6	836.6	837.4	837.2	837.0	836.8	836.6
12.5°	826.3	828.1	829.8	830.6	830.6	830.5	830.5	830.5
15°	814.8	816.6	818.5	819.4	819.2	818.9	818.8	818.5
17.5°	800.6	802.5	804.5	805.4	805.2	805.0	804.9	804.7
20°	789.5	791.7	793.8	794.9	794.9	794.9	794.9	794.9
22.5°	776.7	778.7	780.9	782.1	782.5	782.7	783.1	783.5
25°	756.8	759.1	761.4	762.7	762.9	763.1	763.3	763.6
27.5°	734.4	736.6	738.8	739.9	740.2	740.5	740.7	740.9
30°	718.8	721.1	723.4	724.9	725.3	725.7	726.1	726.6
32.5°	702.8	705.5	708.1	709.7	710.1	710.5	711.0	711.4
35°	677.4	680.4	683.3	685.1	685.7	686.3	687.1	687.7
37.5°	650.9	654.0	656.9	658.8	659.4	660.1	660.8	661.5
40°	632.3	635.5	638.6	640.6	641.5	642.3	643.2	644.0
42.5°	614.0	617.5	621.0	623.1	623.8	624.5	625.2	625.8
45°	585.8	589.3	592.9	595.2	596.3	597.4	598.4	599.4
47.5°	555.8	559.5	563.3	565.7	567.0	568.3	569.5	570.8
50°	534.8	539.0	543.2	546.0	547.2	548.6	549.8	551.1
52.5°	513.6	517.8	522.0	524.8	526.0	527.3	528.5	529.9
55°	481.7	486.0	490.2	492.9	494.2	495.4	496.7	497.9
57.5°	448.3	453.3	458.3	461.4	462.5	463.7	464.9	466.1
60°	425.2	430.0	434.8	438.1	439.8	441.5	443.2	444.9
62.5°	402.3	407.2	412.1	415.4	417.1	418.7	420.4	422.0
65°	367.2	372.5	377.7	381.2	382.9	384.6	386.2	387.9
67.5°	332.6	338.0	343.3	346.8	348.5	350.1	351.8	353.4
70°	308.3	314.0	319.7	323.2	324.7	326.2	327.6	329.1
72.5°	285.2	290.7	296.2	299.8	301.4	303.1	304.7	306.4
75°	249.9	255.7	261.7	265.6	267.5	269.4	271.3	273.1
77.5°	217.0	223.0	229.0	233.0	235.1	237.0	239.1	241.1
80°	195.7	202.1	208.4	212.3	214.0	215.7	217.4	219.1
82.5°	174.8	181.3	187.8	192.0	193.8	195.6	197.5	199.4
85°	145.4	151.8	158.1	162.3	164.4	166.5	168.6	170.8
87.5°	123.9	130.3	136.6	140.7	142.6	144.5	146.4	148.4
90°	123.3	130.4	137.4	142.0	143.9	145.9	147.9	149.9
92.5°	117.9	124.8	131.6	135.9	137.7	139.5	141.2	142.9
95°	111.1	117.7	124.3	128.7	130.7	132.8	134.8	136.9
97.5°	106.3	111.9	117.5	121.3	123.2	125.2	127.2	129.2
100°	108.9	111.9	115.0	117.3	119.0	120.6	122.3	123.9
102.5°	170.3	147.4	124.6	114.0	115.6	117.3	119.0	120.6
105°	293.5	300.1	306.7	308.2	304.3	300.4	296.5	292.6
107.5°	340.0	345.9	351.8	355.8	357.8	360.0	362.1	364.2
110°	371.8	377.0	382.2	385.8	388.0	390.1	392.3	394.4





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CATALOG NUMBER: S124DIP-S795D810U940-4F0-1E-UDD-D

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	402.2	406.7	411.3	414.8	417.1	419.4	421.6	423.9
115°	447.7	452.6	457.6	460.8	462.3	463.8	465.2	466.7
117.5°	493.2	497.5	501.9	504.8	506.4	508.1	509.7	511.3
120°	521.0	525.6	530.1	533.1	534.4	535.8	537.2	538.6
122.5°	548.8	553.2	557.6	560.4	561.6	562.8	564.0	565.3
125°	587.7	592.2	596.6	599.6	601.0	602.4	603.9	605.3
127.5°	625.4	629.1	632.8	635.3	636.6	637.9	639.2	640.5
130°	648.3	652.2	656.2	658.8	660.0	661.3	662.5	663.9
132.5°	671.1	674.9	678.7	681.2	682.2	683.4	684.6	685.7
135°	701.2	705.0	708.6	711.2	712.8	714.4	716.0	717.6
137.5°	730.9	734.4	737.8	739.9	740.9	741.9	742.9	743.9
140°	749.5	752.7	755.9	758.0	759.3	760.5	761.7	762.9
142.5°	767.0	769.8	772.6	774.5	775.3	776.2	777.1	778.1
145°	792.8	794.2	795.7	796.9	798.1	799.2	800.4	801.6
147.5°	815.5	815.8	816.1	816.6	817.4	818.3	819.1	819.9
150°	831.1	831.1	831.1	831.2	831.3	831.4	831.6	831.8
152.5°	845.0	845.3	845.4	845.5	845.4	845.3	845.3	845.2
155°	863.7	864.3	865.0	865.0	864.5	864.1	863.6	863.2
157.5°	879.9	880.7	881.5	881.5	880.7	879.9	879.0	878.2
160°	890.1	891.1	892.0	892.0	891.1	890.1	889.2	888.2
162.5°	898.5	899.4	900.4	900.3	899.2	898.1	897.2	896.1
165°	910.3	911.5	912.8	912.7	911.2	909.9	908.5	907.0
167.5°	918.9	920.2	921.6	921.5	920.0	918.4	916.9	915.3
170°	924.2	925.4	926.7	926.5	925.0	923.5	921.9	920.3
172.5°	927.6	928.8	930.1	929.8	928.2	926.5	924.8	923.1
175°	931.5	932.9	934.2	934.1	932.2	930.3	928.4	926.6
177.5°	933.1	934.1	935.0	934.8	933.3	931.8	930.3	928.8
180°	932.2	932.2	932.2	932.2	932.2	932.2	932.2	932.2

(END OF REPORT)