

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: P332619-940

Luminaire Tested: **S124DIP-S795D1205U940-4F0-1E-UDD-D**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P332619-940  
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-S795D1205U940-4F0-1E-UDD-D  
Description: DEFINE 4 DIRECT-INDIRECT PENDANT LED LUMINAIRE  
DOWNLIGHT 795 LUMENS PER FOOT, DROP SATIN WHITE DIFFUSER  
UPLIGHT 1205 LUMENS PER FOOT, NO LENS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 7176.5 lumens  
Efficiency: N/A  
Efficacy: 126.1 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: Semi-Indirect

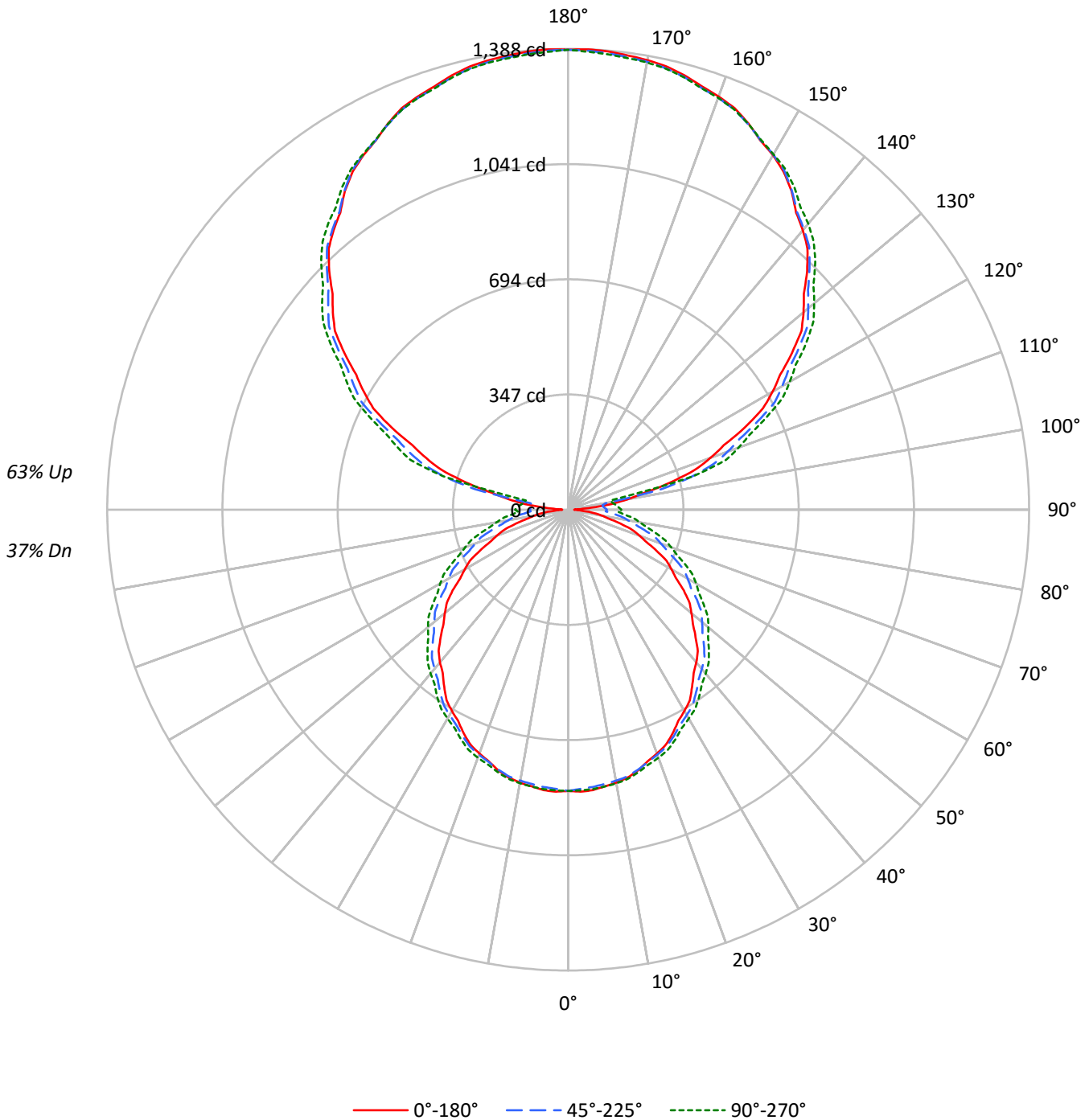
Input Watts (W): 56.9  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



TEST NUMBER: P332619-940

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### Luminous Intensity Polar Plot





TEST NUMBER: P332619-940

CATALOG NUMBER: S124DIP-S795D1205U940-4F0-1E-UDD-D

**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	104	104	104	104	94	94	94	94	76	76	76	60	60	60	44	44	44	37
1	94	90	85	82	85	81	78	75	66	63	61	51	50	48	38	37	36	30
2	85	78	71	66	77	71	65	61	57	53	50	45	42	39	33	31	30	24
3	78	68	61	55	70	62	55	50	50	45	41	39	36	33	29	27	25	20
4	71	60	52	46	64	55	48	42	44	39	35	35	31	28	26	23	21	17
5	65	53	45	39	58	48	41	36	39	34	30	31	27	24	23	20	18	15
6	60	48	39	34	54	43	36	31	35	30	26	28	24	21	21	18	16	13
7	55	43	35	29	50	39	32	27	32	27	23	25	21	18	19	16	14	11
8	51	39	31	26	46	35	29	24	29	24	20	23	19	16	17	15	13	10
9	47	35	28	23	43	32	26	21	26	21	18	21	17	14	16	13	11	9
10	44	32	25	20	40	29	23	19	24	19	16	19	16	13	15	12	10	8

**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	1.1
10°-20°	229.8	3.2
20°-30°	347.5	4.8
30°-40°	420.4	5.9
40°-50°	444.5	6.2
50°-60°	418.3	5.8
60°-70°	347.1	4.8
70°-80°	243.8	3.4
80°-90°	141.8	2.0
90°-100°	129.2	1.8
100°-110°	362.7	5.1
110°-120°	618.6	8.6
120°-130°	756.6	10.5
130°-140°	794.8	11.1
140°-150°	736.0	10.3
150°-160°	591.9	8.2
160°-170°	381.8	5.3
170°-180°	131.6	1.8
0°-30°	657.5	9.2
0°-40°	1077.9	15.0
0°-60°	1940.7	27.0
0°-90°	2673.4	37.3
90°-120°	1110.4	15.5
90°-150°	3397.8	47.3
90°-180°	4503.0	62.7
0°-180°	7176.5	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°	18	68	117	149	160	13
95°	69	68	105	136	147	83
105°	320	346	386	415	389	336
115°	588	601	629	651	658	579
125°	822	827	847	868	875	734
135°	1017	1017	1027	1044	1052	784
145°	1172	1174	1174	1181	1186	732
155°	1284	1285	1282	1285	1283	592
165°	1354	1349	1349	1356	1348	383
175°	1385	1379	1380	1388	1377	132
180°	1385	1385	1385	1385	1385	



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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°	28.7	37.8	46.9	56.0	65.1	74.5	84.1	93.7	103.3	112.9	119.2
90°	18.3	29.2	40.2	51.2	62.2	73.0	84.0	94.9	105.8	116.7	124.2
92.5°	27.5	35.2	42.9	50.6	58.4	67.7	78.6	89.5	100.4	111.3	118.6
95°	69.3	68.5	67.6	66.7	65.8	69.8	78.7	87.6	96.5	105.3	112.4
97.5°	132.2	143.1	153.9	164.8	175.7	172.5	155.4	138.3	121.1	104.0	109.7
100°	180.4	190.0	199.6	209.2	218.8	211.9	188.3	164.8	141.2	117.7	119.5
102.5°	235.1	242.9	250.7	258.6	266.4	272.3	276.3	280.2	284.0	287.9	251.3
105°	320.4	326.0	331.6	337.2	342.8	350.1	359.0	368.0	376.9	385.8	393.2
107.5°	401.3	405.4	409.6	413.7	417.9	424.4	433.3	442.3	451.2	460.1	466.4
110°	455.2	458.9	462.4	466.1	469.8	476.0	484.7	493.5	502.2	511.0	516.3



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	507.5	511.3	515.2	519.1	522.9	528.7	536.4	544.0	551.7	559.5	564.0
115°	588.0	590.6	593.2	595.8	598.3	602.9	609.4	615.9	622.4	628.9	634.1
117.5°	661.4	663.4	665.5	667.5	669.6	674.0	680.8	687.6	694.4	701.2	705.4
120°	710.3	711.9	713.5	715.0	716.6	720.2	726.1	732.0	737.9	743.8	748.5
122.5°	756.8	757.4	758.1	758.8	759.5	762.9	768.9	775.1	781.1	787.3	791.8
125°	822.3	823.0	823.8	824.5	825.2	828.0	832.8	837.6	842.4	847.1	851.9
127.5°	885.1	885.2	885.2	885.2	885.2	887.8	892.9	898.0	903.1	908.2	911.9
130°	925.0	925.1	925.1	925.1	925.1	927.1	931.2	935.2	939.3	943.3	947.4
132.5°	962.3	962.5	962.7	962.9	963.1	965.0	968.6	972.1	975.7	979.3	983.1
135°	1017.3	1017.1	1016.8	1016.6	1016.4	1017.4	1019.8	1022.3	1024.7	1027.1	1030.9
137.5°	1066.8	1066.7	1066.6	1066.5	1066.4	1067.2	1068.9	1070.6	1072.4	1074.1	1077.6
140°	1099.1	1099.4	1099.7	1099.9	1100.2	1100.6	1101.3	1102.0	1102.6	1103.3	1106.7
142.5°	1127.4	1128.2	1129.0	1129.8	1130.5	1131.0	1131.1	1131.3	1131.5	1131.6	1134.5
145°	1171.8	1172.2	1172.7	1173.2	1173.7	1173.9	1173.9	1173.9	1173.9	1173.9	1175.5
147.5°	1207.2	1208.3	1209.3	1210.4	1211.5	1211.9	1211.7	1211.5	1211.2	1211.0	1211.4
150°	1232.9	1233.6	1234.3	1235.0	1235.7	1236.0	1235.7	1235.6	1235.3	1235.0	1235.0
152.5°	1253.7	1254.4	1255.1	1255.8	1256.5	1256.6	1256.2	1255.8	1255.4	1255.0	1255.4
155°	1283.8	1284.0	1284.2	1284.4	1284.7	1284.4	1283.8	1283.1	1282.4	1281.7	1282.6
157.5°	1309.2	1309.1	1308.9	1308.9	1308.7	1308.2	1307.4	1306.7	1305.9	1305.1	1306.3
160°	1324.2	1323.5	1322.8	1322.1	1321.4	1321.0	1320.7	1320.4	1320.3	1320.0	1321.4
162.5°	1337.4	1336.6	1335.7	1334.8	1333.9	1333.4	1333.1	1332.9	1332.7	1332.5	1333.8
165°	1354.2	1353.1	1351.9	1350.8	1349.6	1349.1	1349.1	1349.1	1349.1	1349.1	1350.9
167.5°	1367.4	1366.3	1365.1	1363.9	1362.7	1362.0	1361.9	1361.7	1361.6	1361.5	1363.5
170°	1374.9	1373.6	1372.2	1370.8	1369.4	1368.9	1369.0	1369.3	1369.5	1369.8	1371.6
172.5°	1379.9	1378.5	1377.2	1375.7	1374.4	1373.8	1374.0	1374.3	1374.5	1374.8	1376.5
175°	1385.3	1383.9	1382.5	1381.2	1379.7	1379.2	1379.4	1379.7	1379.9	1380.1	1382.2
177.5°	1387.8	1386.5	1385.2	1383.9	1382.6	1382.2	1382.5	1382.9	1383.3	1383.7	1385.1
180°	1385.3	1385.3	1385.3	1385.3	1385.3	1385.3	1385.3	1385.3	1385.3	1385.3	1385.3



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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°	125.6	132.1	138.4	142.6	144.5	146.5	148.5	150.3
90°	131.7	139.2	146.7	151.5	153.6	155.8	157.9	160.1
92.5°	126.0	133.3	140.6	145.2	147.0	148.7	150.5	152.3
95°	119.5	126.5	133.6	138.2	140.4	142.5	144.5	146.7
97.5°	115.3	121.0	126.6	130.5	132.5	134.6	136.6	138.7
100°	121.2	123.0	124.8	126.5	128.2	129.9	131.6	133.3
102.5°	214.5	177.8	141.2	123.6	125.3	127.0	128.7	130.4
105°	400.6	407.9	415.3	415.6	409.0	402.4	395.8	389.2
107.5°	472.5	478.8	484.9	489.3	491.6	494.0	496.4	498.8
110°	521.7	526.9	532.3	536.1	538.4	540.8	543.2	545.5





TEST NUMBER: P332619-940

CATALOG NUMBER: S124DIP-S795D1205U940-4F0-1E-UDD-D

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	568.6	573.2	577.7	581.3	583.9	586.5	589.1	591.6
115°	639.2	644.3	649.3	652.6	654.1	655.6	657.0	658.5
117.5°	709.8	714.1	718.4	721.3	722.9	724.5	726.0	727.6
120°	753.1	757.9	762.5	765.4	766.7	767.9	769.1	770.3
122.5°	796.2	800.8	805.2	808.0	809.0	810.1	811.2	812.3
125°	856.6	861.2	865.9	869.1	870.6	872.0	873.5	875.0
127.5°	915.5	919.2	922.8	925.2	926.5	927.7	929.0	930.2
130°	951.5	955.5	959.5	962.1	963.4	964.7	965.9	967.1
132.5°	987.0	990.9	994.7	997.2	998.3	999.3	1000.4	1001.5
135°	1034.7	1038.6	1042.4	1045.2	1046.9	1048.7	1050.3	1052.0
137.5°	1081.3	1084.9	1088.4	1090.7	1091.5	1092.5	1093.4	1094.3
140°	1110.2	1113.6	1117.0	1119.4	1120.7	1122.0	1123.2	1124.5
142.5°	1137.5	1140.3	1143.3	1145.2	1146.1	1147.0	1148.0	1148.9
145°	1176.9	1178.4	1179.9	1181.3	1182.6	1183.9	1185.3	1186.5
147.5°	1211.7	1212.1	1212.5	1213.1	1214.0	1214.9	1215.8	1216.7
150°	1235.0	1235.0	1235.0	1235.2	1235.4	1235.6	1235.9	1236.1
152.5°	1255.7	1256.1	1256.4	1256.5	1256.4	1256.2	1256.2	1256.0
155°	1283.5	1284.4	1285.4	1285.5	1284.8	1284.1	1283.4	1282.7
157.5°	1307.5	1308.7	1309.9	1309.9	1308.7	1307.5	1306.3	1305.1
160°	1322.8	1324.2	1325.5	1325.5	1324.2	1322.8	1321.4	1320.0
162.5°	1335.2	1336.6	1338.0	1337.9	1336.3	1334.8	1333.2	1331.6
165°	1352.7	1354.6	1356.4	1356.3	1354.2	1352.1	1350.1	1348.0
167.5°	1365.6	1367.5	1369.6	1369.4	1367.2	1364.9	1362.5	1360.2
170°	1373.4	1375.3	1377.2	1376.9	1374.6	1372.3	1370.0	1367.7
172.5°	1378.4	1380.3	1382.1	1381.8	1379.3	1376.8	1374.3	1371.8
175°	1384.3	1386.3	1388.4	1388.0	1385.3	1382.5	1379.7	1377.0
177.5°	1386.6	1388.0	1389.6	1389.2	1387.0	1384.7	1382.5	1380.4
180°	1385.3	1385.3	1385.3	1385.3	1385.3	1385.3	1385.3	1385.3

(END OF REPORT)