

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: P332795-940

Luminaire Tested: **S124DIW-S795D1340U940-4F0-1E-UDD-D**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P332795-940
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: S124DIW-S795D1340U940-4F0-1E-UDD-D
Description: DEFINE 4 DIRECT-INDIRECT WALL MOUNT LED LUMINAIRE
DOWNLIGHT 795 LUMENS PER FOOT, DROP SATIN WHITE DIFFUSER
UPLIGHT 1340 LUMENS PER FOOT, NO LENS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7675.2 lumens
Efficiency: N/A
Efficacy: 125.0 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

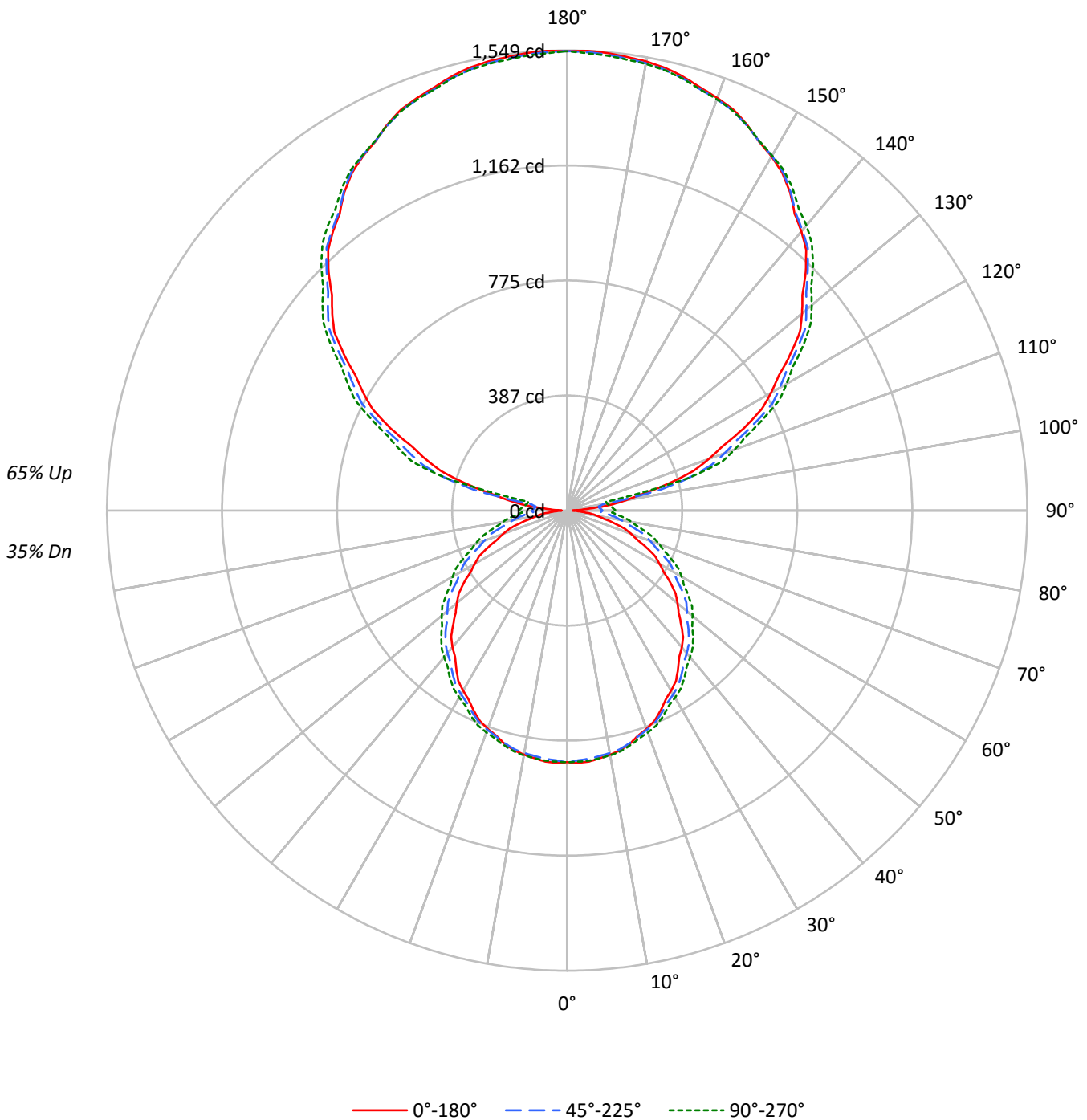
Input Watts (W): 61.4
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





TEST NUMBER: P332795-940

CATALOG NUMBER: S124DIW-S795D1340U940-4F0-1E-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	75	75	75	58	58	58	42	42	42	35
1	94	89	85	81	84	81	77	74	64	62	60	50	48	47	36	35	34	28
2	85	77	71	66	76	70	65	60	56	52	49	43	41	38	31	30	28	23
3	77	68	60	54	69	61	55	50	49	45	41	38	35	32	28	25	24	19
4	71	60	52	46	63	54	47	42	43	38	34	34	30	27	24	22	20	16
5	65	53	45	39	58	48	41	36	39	33	29	30	26	23	22	19	17	14
6	59	47	39	33	53	43	36	31	35	29	25	27	23	20	20	17	15	12
7	55	43	35	29	49	39	32	27	31	26	22	24	21	18	18	15	13	11
8	51	38	31	26	46	35	28	24	28	23	20	22	19	16	16	14	12	9
9	47	35	28	23	42	32	25	21	26	21	17	20	17	14	15	13	11	8
10	44	32	25	20	40	29	23	19	24	19	16	19	15	13	14	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	1.0
10°-20°	229.8	3.0
20°-30°	347.5	4.5
30°-40°	420.4	5.5
40°-50°	444.5	5.8
50°-60°	418.3	5.5
60°-70°	347.1	4.5
70°-80°	243.8	3.2
80°-90°	142.3	1.9
90°-100°	134.7	1.8
100°-110°	397.8	5.2
110°-120°	685.8	8.9
120°-130°	841.9	11.0
130°-140°	886.1	11.5
140°-150°	821.3	10.7
150°-160°	660.7	8.6
160°-170°	426.2	5.6
170°-180°	146.9	1.9
0°-30°	657.5	8.6
0°-40°	1077.9	14.0
0°-60°	1940.7	25.3
0°-90°	2673.9	34.8
90°-120°	1218.3	15.9
90°-150°	3767.6	49.1
90°-180°	5001.0	65.2
0°-180°	7675.2	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°	19	69	119	152	164	13
95°	76	71	108	139	150	92
105°	357	383	424	454	424	374
115°	656	669	697	719	727	645
125°	918	922	943	963	971	819
135°	1135	1135	1146	1162	1171	875
145°	1308	1310	1310	1317	1323	817
155°	1433	1434	1431	1435	1432	661
165°	1512	1506	1506	1514	1505	427
175°	1546	1540	1541	1550	1537	147
180°	1546	1546	1546	1546	1546	



TEST NUMBER: P332795-940

CATALOG NUMBER: S124DIW-S795D1340U940-4F0-1E-UDD-D

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°	28.8	37.9	47.1	56.3	65.5	74.8	84.4	94.1	103.8	113.4	119.8
90°	18.6	29.9	41.2	52.4	63.7	74.9	86.0	97.1	108.3	119.3	127.0
92.5°	29.0	36.7	44.5	52.3	59.9	69.4	80.5	91.7	102.7	113.9	121.4
95°	76.0	74.2	72.4	70.6	68.8	72.4	81.2	90.2	99.1	108.0	115.2
97.5°	146.2	157.7	169.2	180.6	192.0	187.7	167.6	147.4	127.3	107.2	112.9
100°	200.1	210.3	220.3	230.4	240.6	231.9	204.7	177.5	150.3	123.0	124.3
102.5°	261.2	269.4	277.6	285.8	294.0	299.8	303.2	306.7	310.0	313.5	271.9
105°	356.7	362.4	368.2	374.0	379.7	387.1	396.2	405.3	414.4	423.5	431.1
107.5°	446.9	451.1	455.4	459.6	463.9	470.6	479.7	488.7	497.9	507.0	513.4
110°	507.2	511.0	514.7	518.4	522.1	528.4	537.3	546.3	555.2	564.1	569.4



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	565.7	569.7	573.7	577.7	581.7	587.5	595.3	603.1	610.8	618.6	623.2
115°	655.7	658.4	661.0	663.7	666.4	670.9	677.4	683.9	690.5	696.9	702.0
117.5°	737.6	739.8	742.0	744.1	746.3	750.8	757.7	764.5	771.3	778.2	782.5
120°	792.4	794.1	795.7	797.4	799.1	802.8	808.6	814.5	820.4	826.2	830.9
122.5°	844.2	845.0	845.7	846.4	847.2	850.6	856.8	862.9	869.1	875.1	879.7
125°	917.5	918.3	919.2	920.0	920.8	923.5	928.4	933.1	937.8	942.6	947.4
127.5°	987.7	987.7	987.7	987.7	987.8	990.4	995.7	1000.9	1006.1	1011.4	1015.0
130°	1032.2	1032.2	1032.3	1032.3	1032.4	1034.5	1038.7	1042.8	1047.0	1051.1	1055.2
132.5°	1073.9	1074.1	1074.3	1074.6	1074.9	1076.8	1080.5	1084.1	1087.9	1091.5	1095.4
135°	1135.3	1135.1	1134.9	1134.6	1134.3	1135.4	1138.0	1140.5	1143.0	1145.5	1149.3
137.5°	1190.6	1190.5	1190.4	1190.3	1190.3	1191.1	1192.9	1194.8	1196.6	1198.5	1202.1
140°	1226.7	1227.1	1227.4	1227.6	1228.0	1228.4	1229.2	1229.9	1230.7	1231.4	1234.8
142.5°	1258.4	1259.3	1260.2	1261.0	1261.9	1262.4	1262.6	1262.8	1262.9	1263.2	1266.1
145°	1307.9	1308.5	1309.0	1309.6	1310.2	1310.5	1310.5	1310.5	1310.5	1310.5	1312.0
147.5°	1347.5	1348.7	1350.0	1351.1	1352.4	1352.9	1352.6	1352.4	1352.1	1351.8	1352.2
150°	1376.2	1377.0	1377.8	1378.6	1379.4	1379.7	1379.5	1379.2	1378.9	1378.7	1378.7
152.5°	1399.5	1400.3	1401.0	1401.8	1402.6	1402.8	1402.3	1401.8	1401.3	1400.9	1401.3
155°	1433.1	1433.2	1433.5	1433.8	1434.0	1433.8	1433.1	1432.3	1431.5	1430.7	1431.7
157.5°	1461.5	1461.3	1461.2	1461.0	1460.9	1460.4	1459.5	1458.6	1457.8	1456.9	1458.2
160°	1478.1	1477.4	1476.6	1475.8	1475.1	1474.5	1474.3	1474.0	1473.7	1473.6	1475.1
162.5°	1492.9	1491.9	1491.0	1490.0	1489.1	1488.4	1488.2	1487.9	1487.6	1487.4	1488.9
165°	1511.7	1510.4	1509.1	1507.8	1506.5	1505.9	1505.9	1505.9	1505.9	1505.9	1508.0
167.5°	1526.5	1525.2	1523.8	1522.5	1521.2	1520.4	1520.3	1520.1	1519.9	1519.7	1522.1
170°	1534.8	1533.3	1531.7	1530.2	1528.7	1528.0	1528.2	1528.5	1528.7	1529.0	1531.1
172.5°	1540.3	1538.8	1537.3	1535.7	1534.2	1533.6	1533.8	1534.1	1534.3	1534.5	1536.6
175°	1546.4	1544.8	1543.3	1541.8	1540.2	1539.5	1539.8	1540.1	1540.3	1540.6	1542.9
177.5°	1549.2	1547.7	1546.2	1544.8	1543.4	1542.8	1543.3	1543.7	1544.1	1544.5	1546.1
180°	1546.4	1546.4	1546.4	1546.4	1546.4	1546.4	1546.4	1546.4	1546.4	1546.4	1546.4



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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°	126.3	132.7	139.1	143.3	145.3	147.2	149.2	151.1
90°	134.6	142.3	150.0	154.9	157.1	159.3	161.5	163.7
92.5°	128.9	136.3	143.8	148.5	150.3	152.0	153.8	155.6
95°	122.4	129.7	136.9	141.6	143.7	145.9	148.0	150.2
97.5°	118.5	124.2	129.9	133.8	135.8	137.9	140.0	142.0
100°	125.6	127.0	128.2	129.7	131.5	133.2	135.0	136.7
102.5°	230.2	188.7	147.0	127.1	128.8	130.5	132.2	133.8
105°	438.6	446.2	453.8	453.8	446.2	438.6	431.1	423.6
107.5°	519.7	525.9	532.3	536.7	539.2	541.7	544.2	546.6
110°	574.9	580.2	585.6	589.5	591.9	594.4	596.8	599.3



TEST NUMBER: P332795-940

CATALOG NUMBER: S124DIW-S795D1340U940-4F0-1E-UDD-D

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	627.8	632.3	636.9	640.5	643.2	645.9	648.5	651.2
115°	707.2	712.4	717.5	720.9	722.3	723.8	725.2	726.7
117.5°	786.8	791.0	795.3	798.3	799.9	801.4	803.0	804.6
120°	835.7	840.4	845.2	848.1	849.3	850.4	851.6	852.7
122.5°	884.2	888.8	893.2	896.0	897.1	898.0	899.0	900.0
125°	952.2	956.9	961.7	964.8	966.3	967.9	969.4	970.9
127.5°	1018.7	1022.3	1025.9	1028.4	1029.6	1030.8	1032.1	1033.3
130°	1059.2	1063.2	1067.3	1070.0	1071.2	1072.5	1073.7	1075.0
132.5°	1099.3	1103.1	1107.1	1109.6	1110.6	1111.6	1112.7	1113.7
135°	1153.2	1157.2	1161.0	1163.9	1165.6	1167.4	1169.2	1171.0
137.5°	1205.8	1209.4	1213.1	1215.3	1216.2	1217.1	1218.0	1218.9
140°	1238.4	1241.9	1245.4	1247.9	1249.1	1250.4	1251.8	1253.0
142.5°	1269.1	1272.0	1275.1	1277.0	1277.9	1278.9	1279.8	1280.8
145°	1313.5	1315.0	1316.5	1317.9	1319.3	1320.6	1322.1	1323.4
147.5°	1352.5	1353.0	1353.3	1354.0	1355.0	1355.8	1356.7	1357.7
150°	1378.7	1378.7	1378.7	1378.8	1379.0	1379.3	1379.6	1379.8
152.5°	1401.7	1402.1	1402.5	1402.7	1402.5	1402.3	1402.2	1402.0
155°	1432.8	1433.8	1434.9	1434.9	1434.2	1433.4	1432.6	1431.9
157.5°	1459.6	1460.9	1462.2	1462.2	1460.9	1459.6	1458.2	1456.9
160°	1476.6	1478.1	1479.7	1479.7	1478.1	1476.6	1475.1	1473.6
162.5°	1490.5	1492.0	1493.5	1493.4	1491.7	1490.0	1488.2	1486.5
165°	1510.0	1512.1	1514.1	1513.9	1511.7	1509.4	1507.1	1504.8
167.5°	1524.3	1526.5	1528.8	1528.7	1526.1	1523.5	1521.0	1518.4
170°	1533.1	1535.2	1537.2	1537.0	1534.5	1531.9	1529.3	1526.7
172.5°	1538.6	1540.8	1542.8	1542.5	1539.6	1536.9	1534.1	1531.3
175°	1545.2	1547.6	1549.9	1549.4	1546.4	1543.3	1540.2	1537.1
177.5°	1547.8	1549.4	1551.1	1550.7	1548.2	1545.8	1543.3	1540.8
180°	1546.4	1546.4	1546.4	1546.4	1546.4	1546.4	1546.4	1546.4

(END OF REPORT)