

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: P332621

Luminaire Tested: **S124DIP-S795D1205U835-4F0-1E-UDD-D4**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P332621
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-18,
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S124DIP-S795D1205U835-4F0-1E-UDD-D4
Description: DEFINE 4 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 795 LUMENS PER FOOT, DROP SATIN WHITE DIFFUSER
UPLIGHT 1205 LUMENS PER FOOT, BATWING OPTIC
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7542.8 lumens
Efficiency: N/A
Efficacy: 132.6 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

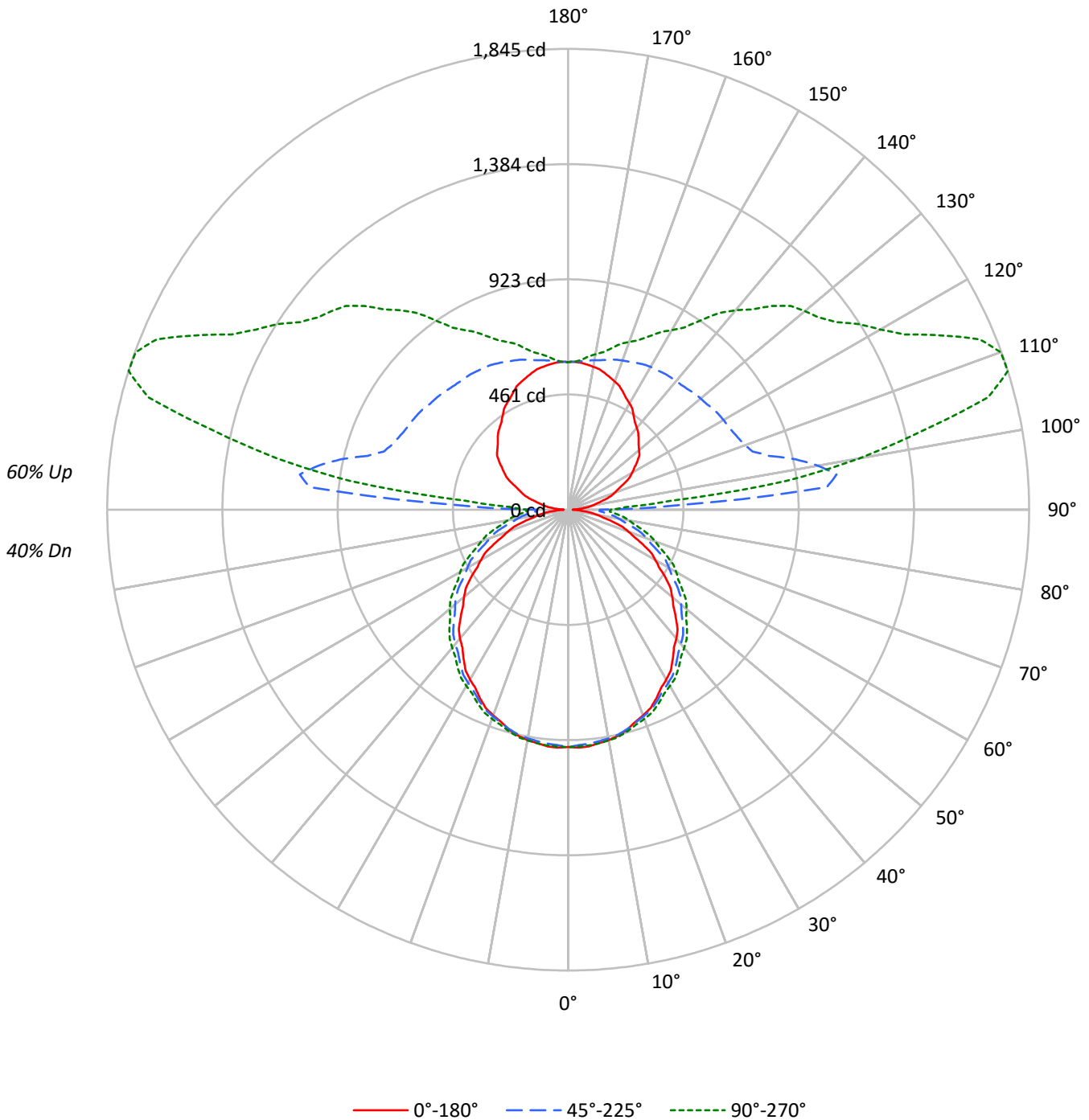
Input Watts (W): 56.9
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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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	50	30	10	0	
RCR																						
0	105	105	105	105	95	95	95	95	78	78	78	62	62	62	47	47	47	40				
1	95	90	86	82	86	82	78	75	67	64	62	53	51	49	40	39	38	32				
2	86	78	72	66	78	71	66	61	58	54	51	46	43	41	35	33	31	26				
3	78	68	61	55	71	62	56	51	51	46	42	40	37	34	30	28	26	22				
4	71	60	52	46	64	55	48	43	45	40	36	36	32	29	27	24	22	18				
5	65	53	45	39	59	49	42	36	40	35	30	32	28	25	24	21	19	16				
6	60	48	40	34	54	44	37	31	36	30	26	29	25	22	22	19	17	14				
7	55	43	35	29	50	39	32	27	32	27	23	26	22	19	20	17	15	12				
8	51	39	31	26	46	36	29	24	30	24	20	24	20	17	18	15	13	11				
9	48	35	28	23	43	33	26	21	27	22	18	22	18	15	17	14	12	10				
10	44	32	25	20	40	30	23	19	25	20	16	20	16	13	16	13	11	9				

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	1.2
10°-20°	257.7	3.4
20°-30°	389.7	5.2
30°-40°	471.5	6.3
40°-50°	498.5	6.6
50°-60°	469.1	6.2
60°-70°	389.2	5.2
70°-80°	273.4	3.6
80°-90°	157.8	2.1
90°-100°	519.0	6.9
100°-110°	957.1	12.7
110°-120°	842.0	11.2
120°-130°	695.6	9.2
130°-140°	569.7	7.6
140°-150°	429.0	5.7
150°-160°	300.0	4.0
160°-170°	176.4	2.3
170°-180°	57.4	0.8
0°-30°	737.4	9.8
0°-40°	1208.8	16.0
0°-60°	2176.4	28.9
0°-90°	2996.8	39.7
90°-120°	2318.0	30.7
90°-150°	4012.2	53.2
90°-180°	4546.0	60.3
0°-180°	7542.8	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°	18	69	126	158	169	13
95°	52	170	1040	589	414	54
105°	146	229	832	1737	1740	156
115°	246	318	730	1379	1651	244
125°	338	401	706	1161	1309	301
135°	398	474	680	1013	1153	308
145°	458	523	667	838	925	287
155°	519	561	648	734	766	240
165°	566	583	622	658	668	160
175°	590	592	596	604	602	56
180°	592	592	592	592	592	



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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°	31.7	41.8	52.2	62.0	71.9	81.9	93.7	104.0	114.8	125.7	132.3
90°	18.2	30.0	42.9	53.5	64.1	73.9	91.1	101.2	113.7	126.2	131.9
92.5°	29.4	44.0	63.4	86.1	111.6	145.1	214.3	314.6	412.6	468.8	413.9
95°	52.2	63.5	82.9	105.8	141.5	199.0	309.8	510.1	797.5	1039.6	1072.7
97.5°	81.3	88.1	104.8	125.4	156.1	205.1	292.6	459.5	745.2	1083.4	1315.5
100°	100.0	106.2	120.4	140.5	168.8	213.6	291.4	431.9	678.2	1015.1	1318.9
102.5°	118.6	125.9	138.4	156.9	183.4	225.9	297.0	421.5	632.3	931.8	1244.8
105°	145.5	153.7	164.3	182.9	208.6	249.0	313.5	418.7	590.2	832.5	1111.5
107.5°	177.4	183.6	193.3	212.0	235.9	275.2	334.6	430.7	578.0	774.2	1002.9
110°	197.9	203.5	212.7	229.9	254.1	291.3	350.7	440.3	576.4	753.2	948.0



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	217.5	222.8	232.4	248.4	272.2	309.0	366.2	450.8	578.1	740.6	914.8
115°	245.8	251.4	261.6	275.4	299.6	335.8	389.8	467.1	582.8	729.8	881.4
117.5°	276.2	280.7	289.2	303.3	325.2	361.9	413.1	484.3	588.3	722.2	862.6
120°	295.8	298.9	307.7	321.2	341.6	378.0	429.0	496.3	592.6	718.0	851.7
122.5°	314.4	316.9	325.2	337.1	358.9	393.8	444.4	507.6	597.1	712.8	840.0
125°	337.7	342.2	348.9	361.4	383.3	418.7	466.4	525.8	604.9	706.1	822.1
127.5°	359.1	362.6	370.8	385.2	407.9	442.9	487.8	541.4	609.9	697.1	799.0
130°	370.4	374.8	383.9	401.0	422.9	458.4	501.7	550.8	613.8	691.9	784.5
132.5°	382.5	385.9	397.8	414.1	437.8	471.0	513.5	560.9	617.7	687.6	771.6
135°	398.4	403.0	414.6	434.4	458.8	489.8	529.8	573.3	622.6	680.0	751.2
137.5°	415.3	419.5	432.1	450.6	475.7	504.8	541.4	581.3	624.4	674.9	733.9
140°	427.4	430.7	443.2	462.7	486.9	514.8	549.9	587.3	627.0	671.4	724.5
142.5°	439.6	443.0	454.8	473.6	497.0	523.9	557.7	591.9	629.4	669.7	716.8
145°	457.7	461.0	472.4	488.4	510.2	535.7	565.9	597.3	631.0	667.0	705.6
147.5°	478.4	479.3	489.3	505.8	523.9	546.8	575.2	602.6	632.1	662.8	695.8
150°	491.4	492.4	501.4	515.1	532.3	554.3	579.8	605.4	632.1	660.0	689.1
152.5°	502.7	502.8	512.1	525.1	540.6	560.8	583.6	607.3	630.3	655.4	681.6
155°	519.4	520.6	527.5	539.2	552.0	569.4	589.1	608.9	627.5	648.4	670.5
157.5°	535.9	535.9	542.4	551.5	562.6	576.4	593.1	608.9	624.5	641.2	659.1
160°	546.1	546.1	550.8	558.9	568.2	581.0	594.9	608.9	621.7	635.6	650.7
162.5°	555.4	554.5	558.2	565.4	573.8	583.8	596.8	608.9	618.9	630.0	643.3
165°	565.9	565.9	568.2	574.0	579.8	586.8	597.3	606.6	613.5	621.7	631.0
167.5°	576.4	575.2	576.4	580.8	584.0	589.4	597.0	603.8	608.0	613.3	619.8
170°	581.0	579.8	581.0	584.5	586.8	590.3	596.1	601.9	604.2	607.7	612.4
172.5°	585.6	584.5	584.7	587.3	588.7	591.2	595.2	600.1	600.5	602.1	605.9
175°	590.3	589.1	589.1	590.3	591.5	591.5	593.8	597.3	596.1	596.1	598.4
177.5°	592.4	591.5	590.5	591.5	591.5	591.5	592.4	594.2	592.4	592.4	593.3
180°	591.5	591.5	591.5	591.5	591.5	591.5	591.5	591.5	591.5	591.5	591.5



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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°	139.4	146.5	153.5	158.0	160.3	162.6	164.5	166.6
90°	139.9	147.9	156.0	160.3	163.4	166.4	167.2	169.1
92.5°	341.7	291.9	263.5	244.5	232.7	228.3	226.3	228.2
95°	966.3	792.6	643.3	534.8	480.0	446.1	427.3	414.4
97.5°	1370.5	1309.7	1202.3	1085.1	1003.7	935.8	903.0	880.8
100°	1495.0	1524.6	1474.0	1392.1	1292.6	1223.4	1190.2	1182.6
102.5°	1483.8	1605.3	1628.0	1596.2	1536.0	1486.5	1451.6	1446.0
105°	1383.5	1590.4	1711.3	1762.9	1767.1	1759.7	1745.3	1740.2
107.5°	1244.4	1464.3	1632.1	1739.5	1798.6	1826.8	1840.1	1844.8
110°	1160.3	1366.8	1540.7	1672.2	1756.6	1807.3	1830.1	1842.4



TEST NUMBER: P332621

CATALOG NUMBER: S124DIP-S795D1205U835-4F0-1E-UDD-D4

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	1097.1	1280.1	1444.6	1576.0	1671.5	1732.4	1763.6	1782.5
115°	1031.8	1180.0	1321.1	1436.1	1529.5	1600.9	1639.8	1650.7
117.5°	996.1	1119.3	1231.1	1329.1	1409.3	1469.7	1509.3	1518.4
120°	978.4	1091.2	1188.9	1274.7	1342.8	1395.8	1427.9	1442.6
122.5°	963.0	1072.1	1161.4	1236.9	1294.6	1340.0	1367.3	1381.7
125°	938.2	1042.6	1127.2	1194.1	1242.0	1277.1	1300.6	1309.0
127.5°	908.1	1007.8	1092.0	1155.6	1203.9	1235.5	1255.7	1264.3
130°	885.2	981.3	1064.5	1129.0	1178.0	1208.5	1228.5	1236.9
132.5°	861.9	952.2	1033.4	1097.7	1145.9	1180.1	1199.1	1207.5
135°	828.2	907.5	982.2	1042.9	1090.8	1124.7	1144.8	1153.1
137.5°	798.3	865.6	928.8	983.6	1028.3	1061.5	1078.0	1087.6
140°	781.0	838.7	894.1	945.0	986.8	1013.6	1031.0	1041.5
142.5°	765.5	816.3	863.9	908.0	945.0	969.7	985.1	992.6
145°	744.2	785.1	821.4	855.1	885.1	905.8	918.4	925.1
147.5°	726.6	758.2	786.3	812.3	834.4	852.2	861.8	864.6
150°	717.0	743.7	766.9	787.8	806.4	821.5	828.5	829.7
152.5°	706.7	729.7	751.1	768.3	784.1	796.4	800.6	801.8
155°	691.4	710.0	727.4	741.4	753.0	762.3	765.8	765.8
157.5°	674.9	690.5	705.1	716.3	725.1	732.1	734.2	734.2
160°	664.7	677.4	690.2	699.5	706.5	713.5	714.6	714.6
162.5°	654.4	665.4	675.4	683.7	688.8	695.8	697.0	696.0
165°	640.3	647.2	655.4	661.2	665.8	670.5	669.3	668.2
167.5°	626.6	631.9	638.4	641.9	644.2	647.2	647.0	646.1
170°	618.2	621.7	626.3	629.8	632.1	633.3	632.1	632.1
172.5°	610.7	613.3	616.1	618.6	620.0	621.2	620.0	618.2
175°	600.8	601.9	604.2	604.2	604.2	606.6	604.2	601.9
177.5°	594.2	595.2	595.2	596.1	595.2	596.1	594.2	592.4
180°	591.5	591.5	591.5	591.5	591.5	591.5	591.5	591.5

(END OF REPORT)