

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: P332601-930

Luminaire Tested: **S124DIP-S795D810U930-4F0-1E-UDD-D**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P332601-930
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-S795D810U930-4F0-1E-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: 5278.8 lumens
Efficiency: N/A
Efficacy: 115.0 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: General Diffuse

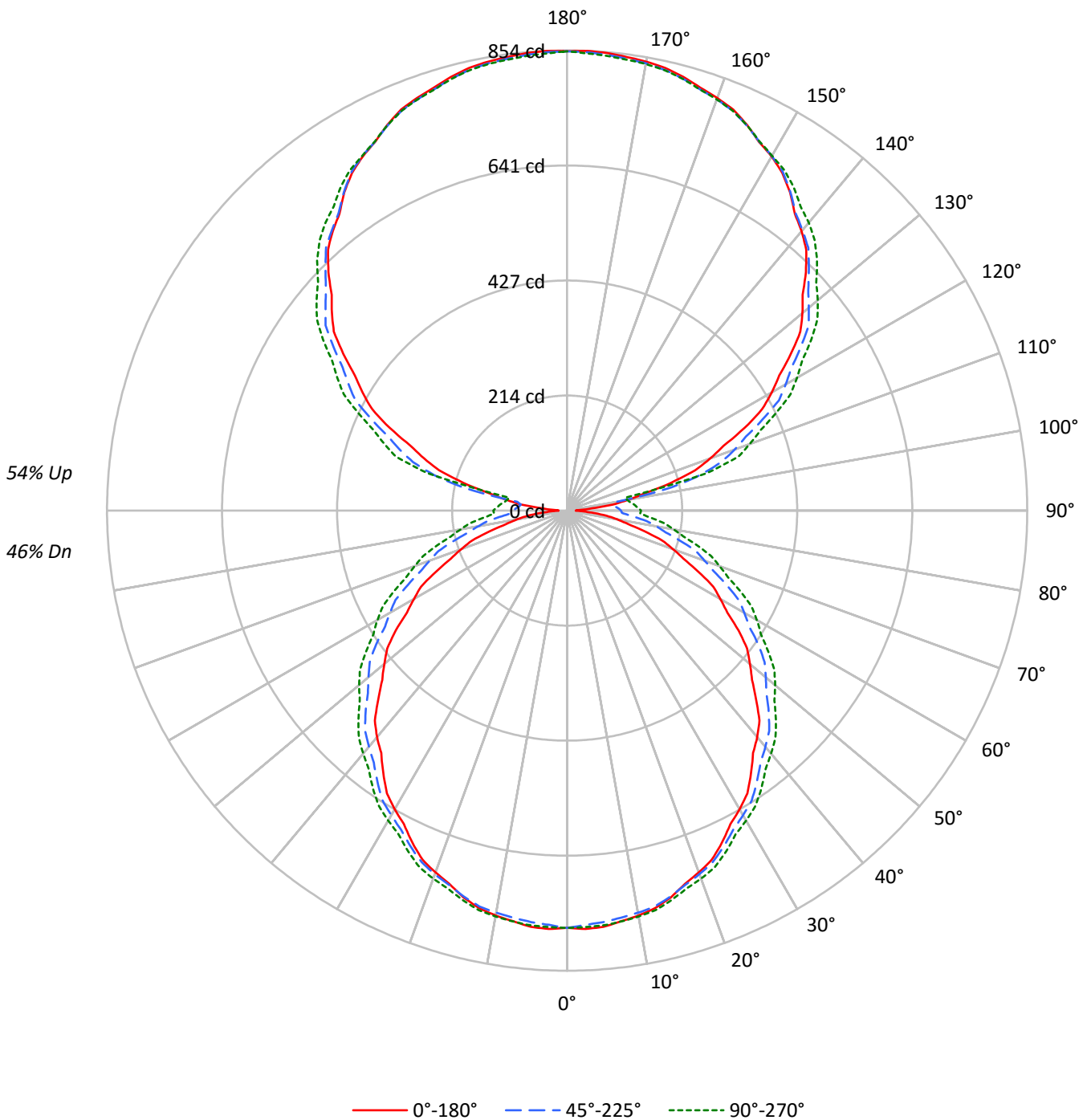
Input Watts (W): 45.9
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P332601-930

CATALOG NUMBER: S124DIP-S795D810U930-4F0-1E-UDD-D

Luminous Intensity Polar Plot





TEST NUMBER: P332601-930

CATALOG NUMBER: S124DIP-S795D810U930-4F0-1E-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°	6252	6252	6252
5°	6271	6110	6128
10°	6233	6010	6006
15°	6177	5894	5862
20°	6093	5766	5723
25°	5998	5624	5569
30°	5895	5481	5411
35°	5779	5336	5274
40°	5685	5196	5129
45°	5547	5069	5005
50°	5430	4922	4876
55°	5310	4783	4722
60°	5121	4605	4583
65°	4915	4414	4411
70°	4666	4197	4210
75°	4318	3960	4029
80°	3929	3731	3851
85°	3441	3526	3748



TEST NUMBER: P332601-930

CATALOG NUMBER: S124DIP-S795D810U930-4F0-1E-UDD-D

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	73.3	1.4
10°-20°	210.1	4.0
20°-30°	317.7	6.0
30°-40°	384.4	7.3
40°-50°	406.4	7.7
50°-60°	382.5	7.2
60°-70°	317.3	6.0
70°-80°	222.9	4.2
80°-90°	128.5	2.4
90°-100°	104.0	2.0
100°-110°	241.2	4.6
110°-120°	392.7	7.4
120°-130°	472.3	8.9
130°-140°	492.0	9.3
140°-150°	453.4	8.6
150°-160°	364.2	6.9
160°-170°	234.9	4.4
170°-180°	81.0	1.5
0°-30°	601.2	11.4
0°-40°	985.6	18.7
0°-60°	1774.4	33.6
0°-90°	2443.1	46.3
90°-120°	738.0	14.0
90°-150°	2155.7	40.8
90°-180°	2836.0	53.7
0°-180°	5278.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	774	774	774	774	774	
5°	775	772	767	773	773	74
15°	743	744	741	749	748	209
25°	680	685	688	697	698	313
35°	595	605	614	626	629	372
45°	496	513	529	543	548	383
55°	388	407	433	449	455	346
65°	269	297	326	347	355	266
75°	149	182	218	241	250	159
85°	46	83	121	146	156	49
90°	16	58	100	128	137	11
95°	46	55	89	116	125	54
105°	200	222	256	281	268	210
115°	364	374	400	420	427	358
125°	507	510	529	547	553	453
135°	626	626	634	649	656	483
145°	721	722	722	728	733	451
155°	790	790	789	791	789	364
165°	833	830	830	834	829	235
175°	852	849	849	854	847	81
180°	852	852	852	852	852	



TEST NUMBER: P332601-930

CATALOG NUMBER: S124DIP-S795D810U930-4F0-1E-UDD-D

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	774.5	774.5	774.5	774.5	774.5	774.5	774.5	774.5	774.5	774.5	774.5
2.5°	777.2	776.7	776.2	775.8	775.3	774.5	773.2	772.0	770.8	769.6	770.6
5°	775.3	774.7	774.1	773.6	773.0	772.0	770.6	769.3	767.9	766.6	768.2
7.5°	768.7	768.3	768.0	767.7	767.3	766.5	765.5	764.3	763.2	762.1	763.9
10°	763.1	763.0	762.8	762.5	762.4	761.8	760.8	759.9	758.9	757.9	759.7
12.5°	755.5	755.5	755.5	755.4	755.4	755.0	754.4	753.7	753.0	752.4	754.0
15°	743.2	743.4	743.6	743.8	744.0	743.8	743.2	742.7	742.0	741.4	743.2
17.5°	726.4	726.9	727.5	728.1	728.7	728.9	728.8	728.7	728.6	728.5	730.3
20°	714.6	715.2	715.8	716.3	716.9	717.3	717.5	717.6	717.9	718.0	720.0
22.5°	701.4	702.1	702.9	703.6	704.3	704.9	705.2	705.6	705.9	706.3	708.2
25°	679.9	681.0	682.2	683.4	684.5	685.4	686.0	686.6	687.1	687.7	689.8
27.5°	656.0	657.6	659.3	661.0	662.8	664.1	665.0	665.8	666.7	667.6	669.5
30°	640.0	641.6	643.1	644.7	646.2	647.6	649.0	650.3	651.7	653.0	655.1
32.5°	622.6	624.5	626.4	628.2	630.1	631.7	633.2	634.7	636.3	637.7	640.2
35°	594.9	597.2	599.6	601.9	604.1	606.3	608.2	610.2	612.0	614.0	616.7
37.5°	567.0	569.6	572.3	574.9	577.6	580.2	582.5	584.9	587.3	589.7	592.5
40°	548.9	551.5	553.9	556.4	559.0	561.6	564.3	567.0	569.6	572.3	575.3
42.5°	528.2	530.9	533.8	536.5	539.4	542.3	545.5	548.7	551.9	555.0	558.2
45°	496.0	499.7	503.4	507.0	510.7	514.4	518.0	521.7	525.3	529.0	532.3
47.5°	465.4	469.1	472.9	476.7	480.5	484.5	488.7	492.9	497.2	501.4	504.8
50°	443.1	447.4	451.6	455.8	460.1	464.3	468.6	472.8	477.0	481.3	485.2
52.5°	420.9	425.2	429.4	433.7	437.9	442.5	447.3	452.2	457.1	461.9	465.7
55°	388.5	392.6	396.6	400.6	404.7	409.6	415.4	421.2	427.0	432.8	436.6
57.5°	352.3	357.3	362.3	367.3	372.3	377.6	383.4	389.1	394.9	400.6	405.2
60°	328.6	333.7	338.7	343.7	348.7	354.4	360.8	367.1	373.5	379.8	384.3
62.5°	305.7	311.3	316.7	322.2	327.7	333.6	340.0	346.3	352.7	359.1	363.5
65°	268.8	275.0	281.2	287.3	293.5	299.9	306.4	313.0	319.5	326.0	330.8
67.5°	233.3	239.9	246.4	252.9	259.5	266.3	273.3	280.3	287.3	294.3	299.2
70°	209.0	215.6	222.1	228.7	235.2	242.1	249.5	256.8	264.1	271.4	276.6
72.5°	185.4	192.1	198.9	205.5	212.2	219.5	227.3	235.1	242.9	250.6	255.7
75°	149.2	156.3	163.4	170.6	177.7	185.3	193.4	201.5	209.6	217.7	223.1
77.5°	115.4	122.9	130.4	138.0	145.5	153.6	162.1	170.6	179.0	187.5	193.0
80°	94.5	102.2	109.9	117.6	125.4	133.5	141.9	150.4	158.9	167.4	173.2
82.5°	73.7	81.7	89.8	97.8	105.7	114.1	122.5	131.0	139.5	148.0	153.8
85°	46.0	54.1	62.1	70.3	78.4	86.7	95.4	104.0	112.8	121.4	127.2
87.5°	26.1	34.2	42.4	50.5	58.8	67.2	75.8	84.5	93.2	101.8	107.6
90°	15.8	25.0	34.3	43.6	52.8	62.2	71.6	81.0	90.5	99.9	106.3
92.5°	21.2	28.2	35.2	42.3	49.3	57.6	66.9	76.4	85.8	95.2	101.5
95°	46.3	47.9	49.4	51.0	52.5	57.3	65.3	73.4	81.4	89.4	95.6
97.5°	84.7	93.2	101.7	110.1	118.6	118.9	110.9	102.9	94.9	86.9	92.0
100°	114.1	121.6	129.2	136.8	144.3	142.1	130.0	118.1	106.0	93.9	96.8
102.5°	147.7	154.0	160.3	166.6	172.8	178.3	183.1	187.9	192.7	197.5	176.7
105°	199.7	204.4	209.1	213.8	218.5	224.8	232.6	240.4	248.3	256.2	262.2
107.5°	249.4	253.0	256.5	260.1	263.7	269.4	277.0	284.8	292.4	300.2	305.6
110°	282.3	285.4	288.5	291.7	294.8	300.2	307.8	315.4	322.9	330.5	335.3



TEST NUMBER: P332601-930

CATALOG NUMBER: S124DIP-S795D810U930-4F0-1E-UDD-D

CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	314.3	317.4	320.6	323.8	326.9	331.9	338.8	345.5	352.4	359.2	363.5
115°	363.5	365.7	367.8	370.0	372.1	376.2	382.2	388.2	394.3	400.3	404.8
117.5°	408.5	410.2	411.7	413.4	415.0	418.8	424.9	430.9	437.0	443.0	446.9
120°	438.5	439.6	440.8	441.9	443.0	446.3	451.8	457.2	462.7	468.1	472.2
122.5°	467.0	467.5	467.9	468.4	468.9	471.8	477.3	482.7	488.2	493.7	497.7
125°	507.0	507.4	507.8	508.2	508.6	511.0	515.6	520.1	524.6	529.1	533.3
127.5°	545.7	545.6	545.5	545.5	545.4	547.6	552.0	556.3	560.7	565.0	568.4
130°	570.0	569.9	569.8	569.8	569.7	571.4	574.9	578.5	582.0	585.5	589.1
132.5°	592.9	593.0	593.0	593.1	593.1	594.7	597.7	600.7	603.7	606.7	610.2
135°	626.5	626.3	626.1	626.1	625.9	626.8	628.7	630.6	632.5	634.5	637.8
137.5°	657.0	656.8	656.6	656.6	656.4	657.0	658.3	659.5	660.8	662.1	665.2
140°	676.8	676.9	677.0	677.1	677.2	677.4	677.9	678.4	678.9	679.4	682.3
142.5°	694.0	694.5	694.9	695.4	695.9	696.1	696.2	696.3	696.3	696.3	698.9
145°	721.2	721.5	721.7	721.9	722.1	722.3	722.3	722.3	722.3	722.3	723.6
147.5°	743.0	743.6	744.2	744.9	745.4	745.7	745.5	745.3	745.2	745.1	745.3
150°	758.8	759.2	759.5	759.9	760.3	760.4	760.3	760.2	760.0	759.9	759.9
152.5°	771.4	771.8	772.3	772.7	773.1	773.1	772.9	772.7	772.3	772.1	772.3
155°	789.9	789.9	790.1	790.3	790.4	790.3	789.9	789.4	789.0	788.6	789.1
157.5°	805.5	805.4	805.4	805.3	805.2	804.9	804.4	804.0	803.5	803.0	803.7
160°	814.7	814.2	813.8	813.4	813.0	812.7	812.6	812.4	812.3	812.1	813.0
162.5°	822.9	822.3	821.7	821.3	820.7	820.4	820.2	820.1	819.9	819.8	820.7
165°	833.2	832.5	831.8	831.0	830.4	830.0	830.0	830.0	830.0	830.0	831.1
167.5°	841.3	840.6	839.8	839.1	838.4	838.0	837.9	837.8	837.7	837.6	838.9
170°	846.0	845.1	844.2	843.3	842.5	842.2	842.3	842.4	842.6	842.8	843.8
172.5°	849.0	848.2	847.3	846.4	845.6	845.2	845.4	845.5	845.6	845.8	846.9
175°	852.3	851.4	850.6	849.8	848.9	848.6	848.7	848.8	849.0	849.1	850.4
177.5°	853.9	853.0	852.2	851.4	850.7	850.4	850.6	850.8	851.1	851.3	852.2
180°	852.3	852.3	852.3	852.3	852.3	852.3	852.3	852.3	852.3	852.3	852.3



TEST NUMBER: P332601-930

CATALOG NUMBER: S124DIP-S795D810U930-4F0-1E-UDD-D

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	774.5	774.5	774.5	774.5	774.5	774.5	774.5	774.5
2.5°	771.7	772.8	773.9	774.4	774.2	774.0	773.9	773.7
5°	769.7	771.3	772.7	773.5	773.2	773.1	772.9	772.7
7.5°	765.6	767.3	769.1	769.8	769.6	769.4	769.2	769.1
10°	761.4	763.1	764.9	765.6	765.5	765.2	765.1	764.9
12.5°	755.5	757.2	758.7	759.5	759.5	759.4	759.4	759.3
15°	744.9	746.7	748.4	749.2	749.0	748.8	748.6	748.4
17.5°	732.0	733.8	735.6	736.4	736.2	736.1	735.9	735.7
20°	721.9	723.8	725.8	726.8	726.8	726.8	726.8	726.8
22.5°	710.1	712.0	714.0	715.1	715.4	715.7	716.0	716.3
25°	691.9	694.1	696.2	697.3	697.5	697.7	697.9	698.1
27.5°	671.5	673.4	675.5	676.5	676.8	677.0	677.3	677.4
30°	657.2	659.3	661.5	662.8	663.2	663.5	663.9	664.3
32.5°	642.6	645.1	647.4	648.9	649.2	649.6	650.0	650.4
35°	619.4	622.1	624.8	626.4	627.0	627.5	628.2	628.8
37.5°	595.2	597.9	600.6	602.3	602.9	603.6	604.1	604.8
40°	578.1	581.1	583.9	585.7	586.5	587.3	588.1	588.8
42.5°	561.4	564.6	567.8	569.7	570.3	571.0	571.6	572.2
45°	535.6	538.8	542.1	544.2	545.2	546.2	547.1	548.0
47.5°	508.2	511.6	515.0	517.2	518.4	519.6	520.7	521.9
50°	489.0	492.8	496.7	499.2	500.3	501.6	502.7	503.9
52.5°	469.6	473.4	477.3	479.8	480.9	482.1	483.2	484.5
55°	440.4	444.3	448.2	450.7	451.8	453.0	454.1	455.3
57.5°	409.9	414.4	419.0	421.8	422.9	424.0	425.1	426.2
60°	388.7	393.1	397.5	400.6	402.1	403.7	405.2	406.8
62.5°	367.9	372.3	376.7	379.8	381.3	382.9	384.3	385.9
65°	335.7	340.6	345.4	348.5	350.1	351.6	353.1	354.7
67.5°	304.1	309.0	313.9	317.1	318.6	320.1	321.6	323.1
70°	281.8	287.1	292.3	295.5	296.9	298.2	299.5	300.9
72.5°	260.7	265.8	270.8	274.1	275.6	277.1	278.6	280.1
75°	228.4	233.8	239.3	242.8	244.6	246.3	248.0	249.7
77.5°	198.4	203.9	209.4	213.0	214.9	216.7	218.6	220.5
80°	179.0	184.7	190.5	194.1	195.7	197.2	198.8	200.3
82.5°	159.8	165.8	171.7	175.5	177.2	178.9	180.6	182.3
85°	133.0	138.8	144.6	148.4	150.3	152.2	154.2	156.1
87.5°	113.3	119.1	124.9	128.7	130.4	132.2	133.9	135.7
90°	112.8	119.2	125.6	129.8	131.6	133.4	135.3	137.1
92.5°	107.8	114.1	120.3	124.3	125.9	127.5	129.1	130.7
95°	101.6	107.6	113.7	117.6	119.5	121.4	123.3	125.1
97.5°	97.2	102.3	107.5	110.9	112.7	114.5	116.3	118.1
100°	99.5	102.3	105.2	107.3	108.8	110.2	111.8	113.2
102.5°	155.7	134.8	113.9	104.2	105.7	107.2	108.8	110.3
105°	268.3	274.4	280.5	281.8	278.2	274.7	271.1	267.5
107.5°	310.9	316.3	321.6	325.3	327.2	329.1	331.1	333.0
110°	340.0	344.7	349.4	352.8	354.7	356.7	358.7	360.6



TEST NUMBER: P332601-930

CATALOG NUMBER: S124DIP-S795D810U930-4F0-1E-UDD-D

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	367.7	371.9	376.1	379.3	381.3	383.4	385.5	387.6
115°	409.4	413.8	418.4	421.3	422.7	424.0	425.3	426.7
117.5°	450.9	454.9	458.9	461.5	463.0	464.6	466.0	467.5
120°	476.4	480.5	484.7	487.4	488.6	489.9	491.1	492.4
122.5°	501.7	505.8	509.8	512.4	513.5	514.6	515.7	516.8
125°	537.4	541.4	545.5	548.2	549.5	550.8	552.1	553.4
127.5°	571.8	575.2	578.5	580.8	582.0	583.3	584.4	585.6
130°	592.7	596.3	600.0	602.3	603.5	604.6	605.8	607.0
132.5°	613.6	617.1	620.5	622.8	623.8	624.8	625.9	627.0
135°	641.2	644.6	647.9	650.3	651.8	653.2	654.6	656.1
137.5°	668.3	671.5	674.6	676.5	677.4	678.3	679.2	680.1
140°	685.3	688.2	691.1	693.1	694.2	695.3	696.4	697.6
142.5°	701.3	703.8	706.4	708.1	708.9	709.7	710.5	711.4
145°	724.9	726.2	727.5	728.6	729.7	730.8	731.8	732.9
147.5°	745.6	745.9	746.2	746.7	747.4	748.2	748.9	749.7
150°	759.9	759.9	759.9	759.9	760.1	760.2	760.3	760.5
152.5°	772.6	772.8	773.0	773.1	773.0	772.9	772.8	772.7
155°	789.7	790.3	790.8	790.9	790.4	790.0	789.6	789.2
157.5°	804.5	805.2	805.9	805.9	805.2	804.5	803.7	803.0
160°	813.8	814.7	815.5	815.5	814.7	813.8	813.0	812.1
162.5°	821.5	822.3	823.2	823.1	822.1	821.2	820.3	819.3
165°	832.3	833.4	834.5	834.5	833.2	831.9	830.6	829.3
167.5°	840.2	841.4	842.6	842.5	841.1	839.7	838.3	836.9
170°	845.0	846.1	847.3	847.1	845.7	844.3	842.9	841.5
172.5°	848.1	849.2	850.4	850.1	848.6	847.1	845.5	844.0
175°	851.7	853.0	854.2	854.0	852.3	850.6	848.9	847.2
177.5°	853.1	854.0	854.9	854.7	853.3	852.0	850.6	849.2
180°	852.3	852.3	852.3	852.3	852.3	852.3	852.3	852.3

(END OF REPORT)