

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: P332602-840

Luminaire Tested: **S124DIP-S795D810U840-4F0-1E-UDD-D1**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P332602-840
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-10,
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S124DIP-S795D810U840-4F0-1E-UDD-D1
Description: DEFINE 4 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 795 LUMENS PER FOOT, DROP SATIN WHITE DIFFUSER
UPLIGHT 810 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6105.1 lumens
Efficiency: N/A
Efficacy: 133.0 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

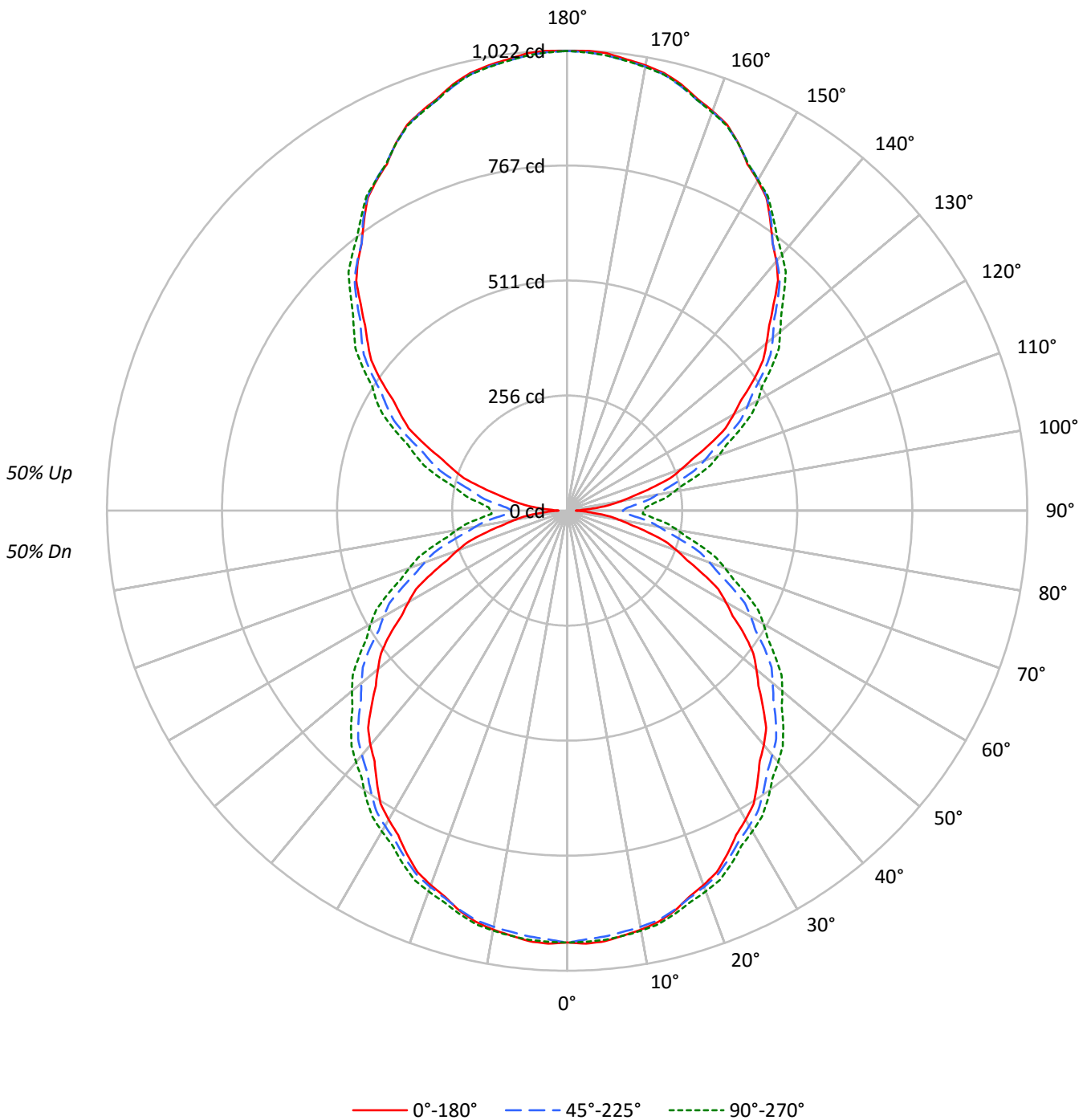
Input Watts (W): 45.9
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P332602-840

CATALOG NUMBER: S124DIP-S795D810U840-4F0-1E-UDD-D1

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	0
RCR																		
0	107	107	107	107	99	99	99	99	83	83	83	69	69	69	56	56	56	50
1	97	92	88	84	89	85	81	78	71	69	66	59	57	55	48	46	45	40
2	88	80	73	68	80	73	68	63	62	58	54	51	48	45	41	39	37	32
3	80	70	62	56	73	64	58	52	54	49	45	45	41	38	36	33	31	27
4	73	61	53	47	67	57	49	44	48	42	38	40	36	32	32	29	27	23
5	67	55	46	40	61	50	43	37	43	37	32	36	31	28	29	26	23	20
6	61	49	40	34	56	45	38	32	38	33	28	32	28	24	26	23	20	17
7	57	44	36	30	52	41	33	28	35	29	25	29	25	21	24	20	18	15
8	52	40	32	26	48	37	30	25	32	26	22	27	22	19	22	18	16	13
9	49	36	29	23	45	34	27	22	29	23	19	24	20	17	20	17	14	12
10	46	33	26	21	42	31	24	20	27	21	17	23	18	15	19	15	13	11

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	7744	7744	7744
5°	7768	7569	7589
10°	7720	7444	7439
15°	7651	7301	7261
20°	7547	7143	7089
25°	7429	6965	6898
30°	7302	6789	6703
35°	7158	6609	6532
40°	7042	6436	6353
45°	6871	6278	6200
50°	6727	6095	6039
55°	6577	5924	5849
60°	6344	5704	5676
65°	6089	5468	5463
70°	5778	5200	5215
75°	5348	4904	4991
80°	4865	4620	4771
85°	4264	4369	4644



TEST NUMBER: P332602-840

CATALOG NUMBER: S124DIP-S795D810U840-4F0-1E-UDD-D1

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	90.8	1.5
10°-20°	260.3	4.3
20°-30°	393.5	6.4
30°-40°	476.1	7.8
40°-50°	503.4	8.2
50°-60°	473.7	7.8
60°-70°	393.1	6.4
70°-80°	276.1	4.5
80°-90°	159.1	2.6
90°-100°	160.0	2.6
100°-110°	268.1	4.4
110°-120°	384.6	6.3
120°-130°	472.4	7.7
130°-140°	512.5	8.4
140°-150°	494.9	8.1
150°-160°	414.3	6.8
160°-170°	275.7	4.5
170°-180°	96.5	1.6
0°-30°	744.6	12.2
0°-40°	1220.8	20.0
0°-60°	2197.9	36.0
0°-90°	3026.1	49.6
90°-120°	812.6	13.3
90°-150°	2292.5	37.5
90°-180°	3079.0	50.4
0°-180°	6105.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	959	959	959	959	959	
5°	960	957	950	958	957	91
15°	921	921	918	928	927	259
25°	842	848	852	863	865	388
35°	737	750	760	775	779	461
45°	614	635	655	673	679	475
55°	481	504	536	557	564	429
65°	333	368	404	430	439	330
75°	185	225	270	299	309	196
85°	57	102	150	181	193	61
90°	20	71	124	158	170	14
95°	61	104	154	184	194	64
105°	194	217	259	287	299	206
115°	351	362	393	415	423	346
125°	506	506	531	549	554	451
135°	649	654	661	676	681	502
145°	787	789	790	795	797	492
155°	900	900	899	902	899	414
165°	980	977	976	980	977	276
175°	1019	1015	1014	1020	1014	97
180°	1021	1021	1021	1021	1021	



TEST NUMBER: P332602-840

CATALOG NUMBER: S124DIP-S795D810U840-4F0-1E-UDD-D1

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	959.3	959.3	959.3	959.3	959.3	959.3	959.3	959.3	959.3	959.3	959.3
2.5°	962.7	962.1	961.5	961.0	960.4	959.4	957.8	956.2	954.7	953.2	954.5
5°	960.3	959.6	958.9	958.2	957.5	956.2	954.5	952.9	951.2	949.6	951.5
7.5°	952.1	951.7	951.3	950.9	950.4	949.5	948.2	946.7	945.3	944.0	946.1
10°	945.2	945.0	944.8	944.5	944.3	943.6	942.4	941.2	940.0	938.8	941.0
12.5°	935.8	935.7	935.7	935.6	935.6	935.2	934.4	933.5	932.7	931.9	933.9
15°	920.6	920.8	921.0	921.3	921.5	921.3	920.6	919.9	919.1	918.4	920.6
17.5°	899.7	900.4	901.1	901.9	902.6	902.8	902.7	902.6	902.4	902.3	904.5
20°	885.1	885.9	886.6	887.3	888.0	888.5	888.7	888.9	889.2	889.4	891.8
22.5°	868.8	869.7	870.6	871.5	872.4	873.1	873.5	873.9	874.3	874.8	877.2
25°	842.1	843.5	845.1	846.5	847.9	849.0	849.7	850.4	851.1	851.8	854.4
27.5°	812.5	814.6	816.7	818.8	820.9	822.5	823.6	824.7	825.8	826.9	829.3
30°	792.7	794.7	796.6	798.5	800.4	802.1	803.9	805.5	807.2	808.8	811.4
32.5°	771.2	773.6	775.9	778.1	780.4	782.4	784.4	786.2	788.1	789.9	792.9
35°	736.9	739.7	742.7	745.5	748.3	750.9	753.4	755.8	758.1	760.5	763.9
37.5°	702.3	705.6	708.9	712.2	715.5	718.6	721.5	724.5	727.5	730.4	733.9
40°	679.9	683.1	686.1	689.2	692.4	695.6	698.9	702.3	705.6	708.9	712.6
42.5°	654.2	657.6	661.2	664.6	668.1	671.8	675.7	679.6	683.6	687.4	691.5
45°	614.4	618.9	623.5	628.0	632.6	637.1	641.7	646.2	650.7	655.2	659.3
47.5°	576.4	581.1	585.7	590.5	595.1	600.1	605.3	610.6	615.8	621.1	625.3
50°	548.9	554.1	559.4	564.6	569.9	575.1	580.4	585.6	590.9	596.1	601.0
52.5°	521.4	526.6	531.9	537.1	542.4	548.1	554.0	560.1	566.1	572.1	576.8
55°	481.2	486.3	491.3	496.2	501.3	507.4	514.5	521.7	528.9	536.0	540.8
57.5°	436.4	442.5	448.8	454.9	461.1	467.8	474.9	482.0	489.2	496.2	501.9
60°	407.1	413.3	419.5	425.8	431.9	439.0	446.9	454.7	462.6	470.5	475.9
62.5°	378.7	385.6	392.3	399.1	405.9	413.2	421.1	429.0	436.9	444.7	450.2
65°	333.0	340.6	348.3	355.9	363.6	371.4	379.5	387.7	395.8	403.8	409.8
67.5°	288.9	297.1	305.2	313.3	321.4	329.8	338.5	347.2	355.9	364.6	370.6
70°	258.8	267.0	275.1	283.3	291.3	299.9	309.0	318.1	327.1	336.2	342.6
72.5°	229.6	237.9	246.3	254.6	262.9	271.9	281.6	291.1	300.8	310.4	316.7
75°	184.8	193.6	202.4	211.3	220.0	229.5	239.5	249.5	259.6	269.6	276.3
77.5°	142.9	152.2	161.6	171.0	180.3	190.3	200.8	211.3	221.8	232.3	239.0
80°	117.0	126.6	136.1	145.7	155.3	165.3	175.8	186.3	196.8	207.3	214.5
82.5°	91.3	101.2	111.2	121.1	131.0	141.3	151.8	162.3	172.8	183.3	190.6
85°	57.0	67.0	77.0	87.1	97.0	107.4	118.2	128.9	139.7	150.4	157.5
87.5°	32.3	42.4	52.5	62.6	72.8	83.2	93.9	104.6	115.4	126.1	133.3
90°	19.6	31.0	42.5	54.0	65.4	77.1	88.7	100.4	112.0	123.7	131.7
92.5°	33.2	44.0	54.8	65.6	76.4	87.5	98.7	110.0	121.2	132.5	139.8
95°	61.3	70.8	80.3	89.7	99.2	109.4	120.4	131.4	142.4	153.5	160.5
97.5°	95.4	103.4	111.5	119.6	127.5	137.1	148.3	159.5	170.6	181.7	188.5
100°	122.4	129.3	136.1	143.1	150.0	158.9	169.8	180.7	191.6	202.5	209.2
102.5°	151.4	157.1	162.9	168.5	174.3	182.4	193.0	203.6	214.1	224.7	231.4
105°	193.6	198.5	203.5	208.4	213.4	220.7	230.1	239.7	249.2	258.8	265.3
107.5°	239.9	244.1	248.2	252.4	256.5	262.8	271.2	279.7	288.1	296.6	303.0
110°	270.7	274.4	278.1	281.8	285.5	291.4	299.6	307.8	316.0	324.2	329.3



TEST NUMBER: P332602-840

CATALOG NUMBER: S124DIP-S795D810U840-4F0-1E-UDD-D1

CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	302.7	305.7	308.7	311.7	314.8	320.1	327.8	335.5	343.2	350.8	356.0
115°	350.6	352.8	355.0	357.1	359.3	364.0	371.2	378.6	385.9	393.1	398.2
117.5°	396.9	398.3	399.7	401.1	402.6	406.8	413.6	420.5	427.4	434.2	438.6
120°	427.0	428.4	429.8	431.2	432.6	436.6	442.9	449.3	455.8	462.1	466.1
122.5°	459.2	459.6	460.0	460.4	460.9	464.2	470.5	476.9	483.1	489.4	493.6
125°	505.6	505.4	505.1	504.9	504.6	507.5	513.2	519.1	524.8	530.6	534.8
127.5°	548.6	548.8	549.1	549.4	549.7	552.0	556.2	560.6	564.9	569.2	573.1
130°	577.9	578.2	578.6	578.9	579.2	581.2	585.0	588.9	592.7	596.4	600.4
132.5°	608.9	609.0	609.3	609.4	609.6	611.1	614.0	616.9	619.8	622.7	626.4
135°	648.7	649.8	650.9	651.9	653.0	654.3	656.0	657.6	659.3	661.0	664.5
137.5°	693.3	693.6	693.8	694.1	694.3	695.0	696.1	697.1	698.2	699.3	702.4
140°	723.0	723.1	723.2	723.3	723.4	723.6	723.9	724.1	724.3	724.6	727.5
142.5°	749.2	749.5	749.8	750.1	750.4	750.5	750.2	749.9	749.6	749.3	752.0
145°	786.6	787.1	787.6	788.0	788.5	788.8	789.0	789.1	789.3	789.5	790.7
147.5°	823.8	824.5	825.1	825.7	826.3	826.6	826.4	826.3	826.1	826.0	826.1
150°	846.7	847.1	847.6	848.0	848.5	848.7	848.7	848.7	848.7	848.7	848.7
152.5°	867.3	867.6	868.0	868.4	868.7	869.0	869.1	869.3	869.4	869.6	870.0
155°	900.0	900.0	900.0	900.0	900.0	899.9	899.8	899.6	899.4	899.3	899.9
157.5°	927.9	927.5	927.2	926.9	926.6	926.3	926.3	926.3	926.2	926.2	926.8
160°	944.2	944.0	943.9	943.7	943.5	943.3	943.2	943.0	942.8	942.7	943.2
162.5°	959.4	959.0	958.5	958.1	957.6	957.3	957.0	956.9	956.7	956.5	957.6
165°	979.8	979.3	978.8	978.2	977.7	977.2	976.8	976.5	976.1	975.8	976.8
167.5°	995.4	994.6	993.9	993.2	992.5	992.1	992.1	992.2	992.2	992.2	993.3
170°	1004.2	1003.4	1002.5	1001.6	1000.8	1000.4	1000.6	1000.8	1000.9	1001.1	1002.1
172.5°	1010.6	1009.9	1009.1	1008.4	1007.6	1007.2	1007.3	1007.3	1007.3	1007.4	1008.6
175°	1019.3	1018.3	1017.4	1016.6	1015.7	1015.2	1015.0	1014.8	1014.7	1014.5	1015.7
177.5°	1022.1	1021.4	1020.7	1020.0	1019.3	1019.0	1019.0	1019.0	1019.0	1019.0	1019.9
180°	1020.8	1020.8	1020.8	1020.8	1020.8	1020.8	1020.8	1020.8	1020.8	1020.8	1020.8



TEST NUMBER: P332602-840

CATALOG NUMBER: S124DIP-S795D810U840-4F0-1E-UDD-D1

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	959.3	959.3	959.3	959.3	959.3	959.3	959.3	959.3
2.5°	955.8	957.3	958.6	959.2	959.0	958.8	958.6	958.4
5°	953.4	955.3	957.2	958.1	957.8	957.6	957.4	957.0
7.5°	948.3	950.4	952.6	953.5	953.3	953.0	952.8	952.6
10°	943.1	945.2	947.5	948.4	948.2	947.9	947.7	947.5
12.5°	935.8	937.9	939.8	940.7	940.7	940.6	940.6	940.5
15°	922.7	924.8	927.0	928.0	927.8	927.5	927.3	927.0
17.5°	906.7	908.9	911.1	912.1	911.9	911.7	911.5	911.3
20°	894.1	896.6	899.0	900.2	900.2	900.2	900.2	900.2
22.5°	879.6	881.9	884.3	885.8	886.2	886.5	886.9	887.3
25°	857.1	859.7	862.3	863.7	863.9	864.2	864.4	864.7
27.5°	831.7	834.1	836.7	838.0	838.3	838.6	838.9	839.1
30°	814.1	816.7	819.3	820.9	821.4	821.8	822.3	822.8
32.5°	796.0	799.0	801.9	803.8	804.2	804.7	805.2	805.7
35°	767.2	770.5	773.9	775.9	776.6	777.3	778.1	778.8
37.5°	737.2	740.6	744.0	746.1	746.8	747.6	748.3	749.1
40°	716.1	719.7	723.3	725.5	726.5	727.4	728.4	729.3
42.5°	695.4	699.3	703.3	705.7	706.4	707.2	708.0	708.7
45°	663.4	667.4	671.5	674.1	675.3	676.5	677.7	678.8
47.5°	629.4	633.7	637.9	640.7	642.2	643.6	645.0	646.4
50°	605.7	610.5	615.2	618.3	619.8	621.3	622.7	624.1
52.5°	581.7	586.4	591.2	594.3	595.7	597.1	598.5	600.1
55°	545.5	550.4	555.1	558.3	559.7	561.1	562.5	563.9
57.5°	507.7	513.3	519.0	522.5	523.8	525.1	526.5	527.9
60°	481.5	487.0	492.4	496.1	498.1	500.0	501.9	503.8
62.5°	455.7	461.2	466.7	470.4	472.3	474.2	476.1	478.0
65°	415.9	421.8	427.8	431.7	433.6	435.6	437.4	439.3
67.5°	376.7	382.7	388.8	392.7	394.7	396.5	398.4	400.2
70°	349.1	355.6	362.0	366.1	367.7	369.4	371.0	372.7
72.5°	323.0	329.2	335.5	339.5	341.3	343.3	345.1	347.0
75°	283.0	289.6	296.4	300.7	303.0	305.1	307.2	309.3
77.5°	245.8	252.6	259.3	263.9	266.2	268.4	270.7	273.1
80°	221.7	228.8	236.0	240.4	242.4	244.3	246.2	248.1
82.5°	197.9	205.3	212.7	217.4	219.4	221.6	223.7	225.8
85°	164.7	171.9	179.0	183.8	186.2	188.5	191.0	193.4
87.5°	140.4	147.5	154.7	159.4	161.5	163.7	165.8	168.0
90°	139.7	147.6	155.6	160.8	163.0	165.2	167.5	169.8
92.5°	147.1	154.5	161.9	166.6	168.7	170.9	173.0	175.1
95°	167.4	174.4	181.4	185.9	188.0	190.2	192.4	194.5
97.5°	195.5	202.4	209.2	213.7	215.7	217.8	219.8	221.9
100°	216.0	222.8	229.6	233.9	235.5	237.2	238.8	240.5
102.5°	238.1	244.9	251.7	256.0	258.0	260.0	262.1	264.0
105°	271.8	278.3	284.8	289.2	291.6	294.1	296.5	299.0
107.5°	309.3	315.7	322.0	326.1	327.8	329.4	331.1	332.9
110°	334.4	339.5	344.7	348.5	350.9	353.4	355.8	358.2



TEST NUMBER: P332602-840

CATALOG NUMBER: S124DIP-S795D810U840-4F0-1E-UDD-D1

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	361.2	366.5	371.7	375.4	377.3	379.3	381.3	383.3
115°	403.2	408.4	413.4	416.7	418.2	419.7	421.2	422.7
117.5°	442.9	447.3	451.7	454.6	456.3	457.8	459.3	460.9
120°	469.9	473.8	477.7	480.8	483.0	485.3	487.6	489.8
122.5°	497.8	501.9	506.1	508.8	509.9	510.9	512.0	513.1
125°	539.0	543.2	547.3	550.0	551.1	552.2	553.2	554.3
127.5°	577.0	581.0	584.9	587.6	589.0	590.3	591.7	593.0
130°	604.3	608.3	612.3	614.6	615.3	616.0	616.7	617.5
132.5°	630.3	634.0	637.7	640.2	641.4	642.5	643.6	644.8
135°	667.9	671.5	674.9	677.1	677.9	678.8	679.7	680.6
137.5°	705.4	708.4	711.4	713.6	714.9	716.2	717.5	718.8
140°	730.4	733.4	736.3	738.2	739.2	740.2	741.2	742.3
142.5°	754.7	757.4	760.1	761.9	762.9	763.9	764.9	765.8
145°	792.0	793.2	794.6	795.4	795.8	796.2	796.7	797.1
147.5°	826.1	826.2	826.2	826.5	827.1	827.7	828.3	828.9
150°	848.7	848.7	848.7	848.6	848.5	848.3	848.1	847.9
152.5°	870.4	870.8	871.2	871.2	870.8	870.3	869.9	869.4
155°	900.6	901.3	902.0	902.0	901.3	900.6	899.9	899.3
157.5°	927.3	927.9	928.4	928.3	927.8	927.2	926.6	925.9
160°	943.7	944.2	944.7	944.6	943.7	942.8	942.0	941.1
162.5°	958.5	959.4	960.4	960.4	959.5	958.7	957.8	956.8
165°	978.0	979.0	980.1	980.2	979.5	978.8	978.1	977.4
167.5°	994.3	995.4	996.4	996.4	995.3	994.2	993.2	992.1
170°	1003.2	1004.2	1005.3	1005.2	1004.0	1002.8	1001.5	1000.3
172.5°	1009.8	1011.0	1012.2	1012.2	1011.0	1009.7	1008.5	1007.2
175°	1016.9	1018.1	1019.5	1019.5	1018.1	1016.9	1015.7	1014.5
177.5°	1020.9	1021.9	1022.9	1022.8	1021.7	1020.6	1019.5	1018.2
180°	1020.8	1020.8	1020.8	1020.8	1020.8	1020.8	1020.8	1020.8

(END OF REPORT)