

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: P332602-940

Luminaire Tested: **S124DIP-S795D810U940-4F0-1E-UDD-D1**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P332602-940
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-S795D810U940-4F0-1E-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: 5390.8 lumens
Efficiency: N/A
Efficacy: 117.4 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

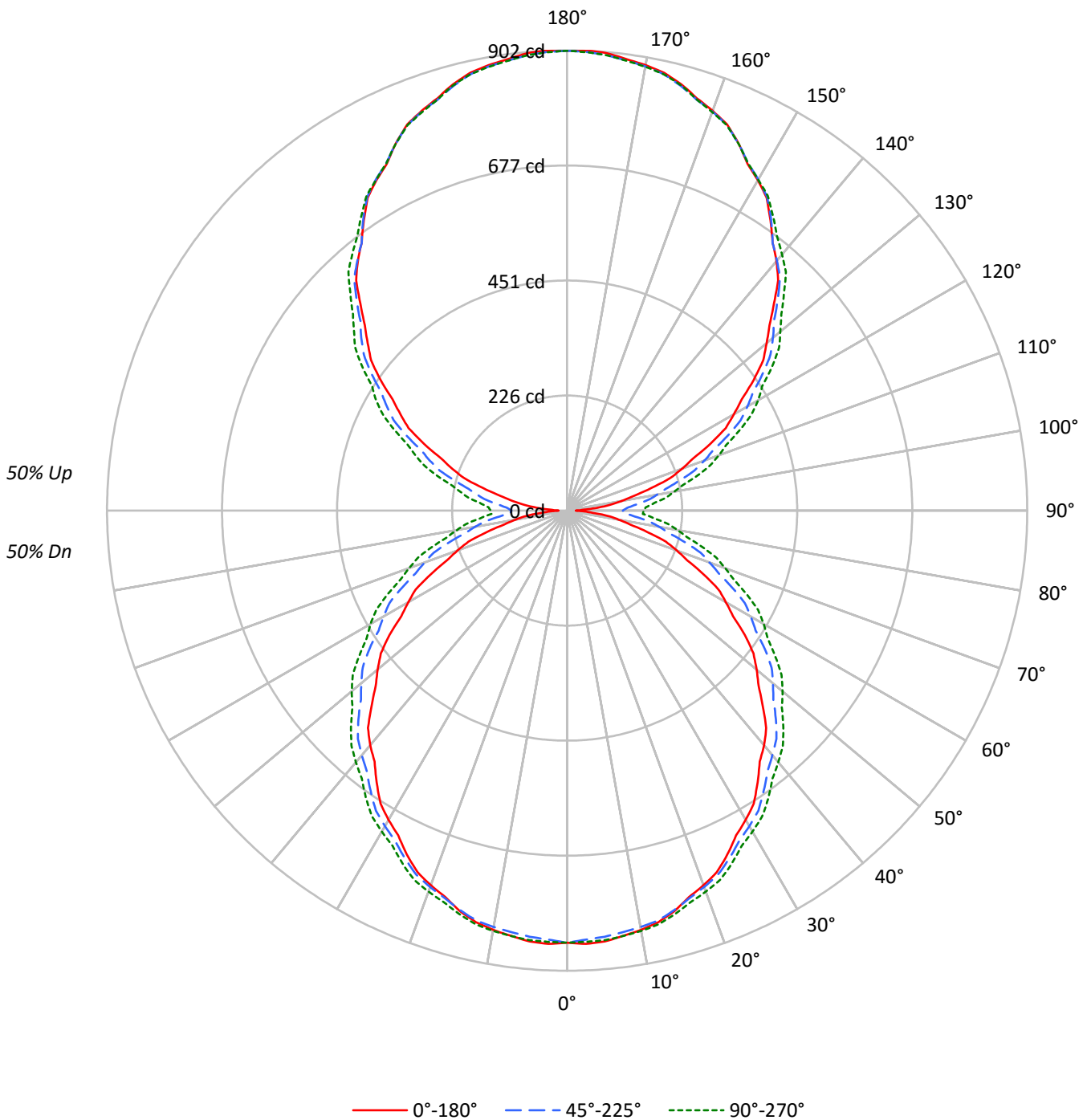
Input Watts (W): 45.9
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P332602-940

CATALOG NUMBER: S124DIP-S795D810U940-4F0-1E-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°	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



TEST NUMBER: P332602-940

CATALOG NUMBER: S124DIP-S795D810U940-4F0-1E-UDD-D1

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	80.2	1.5
10°-20°	229.8	4.3
20°-30°	347.5	6.4
30°-40°	420.4	7.8
40°-50°	444.5	8.2
50°-60°	418.3	7.8
60°-70°	347.1	6.4
70°-80°	243.8	4.5
80°-90°	140.5	2.6
90°-100°	141.3	2.6
100°-110°	236.7	4.4
110°-120°	339.6	6.3
120°-130°	417.1	7.7
130°-140°	452.6	8.4
140°-150°	437.0	8.1
150°-160°	365.9	6.8
160°-170°	243.4	4.5
170°-180°	85.2	1.6
0°-30°	657.5	12.2
0°-40°	1077.9	20.0
0°-60°	1940.7	36.0
0°-90°	2672.1	49.6
90°-120°	717.5	13.3
90°-150°	2024.2	37.5
90°-180°	2719.0	50.4
0°-180°	5390.8	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°	17	63	109	140	150	13
95°	54	92	136	162	172	56
105°	171	192	228	253	264	182
115°	310	319	347	366	373	306
125°	446	447	468	484	490	398
135°	573	577	584	597	601	443
145°	695	696	697	702	704	435
155°	795	795	794	796	794	366
165°	865	863	862	865	863	244
175°	900	897	896	900	896	85
180°	901	901	901	901	901	



TEST NUMBER: P332602-940

CATALOG NUMBER: S124DIP-S795D810U940-4F0-1E-UDD-D1

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°	28.5	37.5	46.4	55.3	64.3	73.5	82.9	92.4	101.9	111.4	117.7
90°	17.3	27.4	37.5	47.7	57.8	68.0	78.3	88.6	98.9	109.2	116.3
92.5°	29.3	38.9	48.4	58.0	67.5	77.2	87.1	97.1	107.0	117.0	123.4
95°	54.1	62.5	70.9	79.2	87.6	96.6	106.3	116.0	125.7	135.5	141.7
97.5°	84.3	91.3	98.4	105.6	112.6	121.1	131.0	140.8	150.6	160.4	166.5
100°	108.1	114.1	120.2	126.4	132.4	140.3	149.9	159.5	169.2	178.8	184.8
102.5°	133.7	138.8	143.8	148.8	153.9	161.0	170.4	179.8	189.0	198.4	204.3
105°	170.9	175.3	179.7	184.0	188.4	194.8	203.2	211.7	220.1	228.5	234.3
107.5°	211.9	215.5	219.2	222.8	226.5	232.0	239.5	247.0	254.4	261.9	267.5
110°	239.1	242.3	245.6	248.8	252.1	257.3	264.6	271.8	279.0	286.2	290.8



TEST NUMBER: P332602-940

CATALOG NUMBER: S124DIP-S795D810U940-4F0-1E-UDD-D1

CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	267.2	269.9	272.6	275.3	277.9	282.7	289.4	296.2	303.0	309.8	314.3
115°	309.6	311.6	313.4	315.3	317.3	321.4	327.8	334.3	340.7	347.1	351.6
117.5°	350.4	351.7	352.9	354.2	355.5	359.2	365.2	371.3	377.4	383.4	387.3
120°	377.0	378.3	379.5	380.8	382.0	385.5	391.1	396.7	402.4	408.0	411.5
122.5°	405.5	405.8	406.2	406.5	407.0	409.9	415.4	421.1	426.6	432.1	435.9
125°	446.5	446.3	446.0	445.9	445.6	448.1	453.2	458.3	463.4	468.5	472.3
127.5°	484.4	484.6	484.8	485.1	485.4	487.4	491.2	495.0	498.8	502.6	506.0
130°	510.3	510.6	510.9	511.1	511.4	513.2	516.6	520.0	523.3	526.6	530.1
132.5°	537.7	537.8	538.0	538.1	538.2	539.6	542.2	544.7	547.2	549.8	553.1
135°	572.8	573.8	574.7	575.6	576.6	577.7	579.3	580.7	582.2	583.6	586.7
137.5°	612.2	612.4	612.6	612.9	613.1	613.7	614.7	615.5	616.5	617.5	620.2
140°	638.4	638.5	638.6	638.6	638.7	638.9	639.2	639.4	639.5	639.8	642.4
142.5°	661.6	661.8	662.1	662.4	662.6	662.7	662.5	662.2	661.9	661.6	664.1
145°	694.6	695.0	695.4	695.8	696.2	696.5	696.7	696.8	697.0	697.1	698.2
147.5°	727.5	728.0	728.5	729.1	729.6	729.9	729.7	729.6	729.4	729.3	729.4
150°	747.6	748.0	748.4	748.8	749.2	749.4	749.4	749.4	749.4	749.4	749.4
152.5°	765.8	766.1	766.4	766.8	767.0	767.3	767.4	767.6	767.7	767.9	768.2
155°	794.7	794.7	794.7	794.7	794.7	794.6	794.5	794.3	794.2	794.1	794.6
157.5°	819.3	818.9	818.7	818.4	818.1	818.0	818.0	818.0	817.9	817.9	818.3
160°	833.7	833.6	833.5	833.3	833.1	832.9	832.9	832.7	832.5	832.4	832.9
162.5°	847.1	846.8	846.3	846.0	845.5	845.3	845.1	845.0	844.8	844.6	845.5
165°	865.1	864.7	864.2	863.7	863.3	862.9	862.6	862.3	861.9	861.7	862.6
167.5°	879.0	878.2	877.6	877.0	876.4	876.0	876.0	876.1	876.1	876.1	877.1
170°	886.7	886.0	885.2	884.4	883.7	883.3	883.5	883.7	883.8	884.0	884.8
172.5°	892.3	891.7	891.0	890.4	889.7	889.4	889.5	889.5	889.5	889.6	890.6
175°	900.0	899.2	898.4	897.7	896.9	896.4	896.3	896.1	896.0	895.8	896.9
177.5°	902.5	901.9	901.3	900.6	900.0	899.7	899.7	899.7	899.7	899.7	900.5
180°	901.3	901.3	901.3	901.3	901.3	901.3	901.3	901.3	901.3	901.3	901.3



TEST NUMBER: P332602-940

CATALOG NUMBER: S124DIP-S795D810U940-4F0-1E-UDD-D1

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°	123.9	130.3	136.6	140.7	142.6	144.5	146.4	148.4
90°	123.3	130.4	137.4	142.0	143.9	145.9	147.9	149.9
92.5°	129.9	136.4	142.9	147.1	149.0	150.9	152.8	154.6
95°	147.8	154.0	160.2	164.2	166.0	167.9	169.9	171.7
97.5°	172.6	178.7	184.8	188.7	190.5	192.3	194.1	195.9
100°	190.7	196.7	202.8	206.5	207.9	209.5	210.9	212.4
102.5°	210.3	216.2	222.2	226.0	227.8	229.6	231.4	233.1
105°	240.0	245.8	251.5	255.4	257.5	259.7	261.8	264.0
107.5°	273.1	278.7	284.4	287.9	289.4	290.9	292.4	293.9
110°	295.2	299.8	304.3	307.7	309.9	312.0	314.1	316.3



TEST NUMBER: P332602-940

CATALOG NUMBER: S124DIP-S795D810U940-4F0-1E-UDD-D1

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	319.0	323.6	328.2	331.4	333.1	334.9	336.7	338.5
115°	356.1	360.6	365.1	367.9	369.3	370.6	371.9	373.3
117.5°	391.1	394.9	398.9	401.4	402.9	404.2	405.6	407.0
120°	414.9	418.4	421.8	424.5	426.5	428.6	430.5	432.5
122.5°	439.5	443.2	446.9	449.2	450.2	451.1	452.1	453.1
125°	475.9	479.7	483.3	485.6	486.6	487.6	488.5	489.5
127.5°	509.5	513.0	516.5	518.9	520.0	521.2	522.5	523.6
130°	533.6	537.2	540.6	542.7	543.3	543.9	544.6	545.3
132.5°	556.5	559.8	563.1	565.3	566.3	567.3	568.3	569.4
135°	589.8	592.9	595.9	597.9	598.6	599.4	600.2	601.0
137.5°	622.9	625.5	628.2	630.1	631.2	632.4	633.6	634.7
140°	645.0	647.6	650.1	651.8	652.7	653.6	654.5	655.4
142.5°	666.4	668.8	671.2	672.8	673.6	674.5	675.4	676.2
145°	699.4	700.4	701.6	702.3	702.7	703.0	703.5	703.8
147.5°	729.4	729.5	729.5	729.8	730.3	730.8	731.4	731.9
150°	749.4	749.4	749.4	749.3	749.2	749.0	748.9	748.7
152.5°	768.6	768.9	769.3	769.3	768.9	768.5	768.1	767.7
155°	795.2	795.9	796.5	796.5	795.9	795.2	794.6	794.1
157.5°	818.8	819.3	819.7	819.7	819.2	818.7	818.1	817.6
160°	833.3	833.7	834.2	834.1	833.3	832.5	831.8	831.0
162.5°	846.3	847.1	848.0	848.0	847.2	846.5	845.7	844.9
165°	863.5	864.4	865.4	865.5	864.9	864.2	863.6	863.1
167.5°	878.0	879.0	879.9	879.9	878.9	877.9	877.0	876.0
170°	885.8	886.7	887.7	887.6	886.5	885.5	884.3	883.2
172.5°	891.6	892.7	893.8	893.8	892.7	891.5	890.5	889.4
175°	898.0	899.0	900.2	900.2	899.0	898.0	896.9	895.8
177.5°	901.4	902.3	903.2	903.1	902.1	901.2	900.2	899.1
180°	901.3	901.3	901.3	901.3	901.3	901.3	901.3	901.3

(END OF REPORT)