

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: P332621-830

Luminaire Tested: **S124DIP-S795D1205U830-4F0-1E-UDD-D4**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P332621-830
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-S795D1205U830-4F0-1E-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: 7109.4 lumens
Efficiency: N/A
Efficacy: 124.9 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

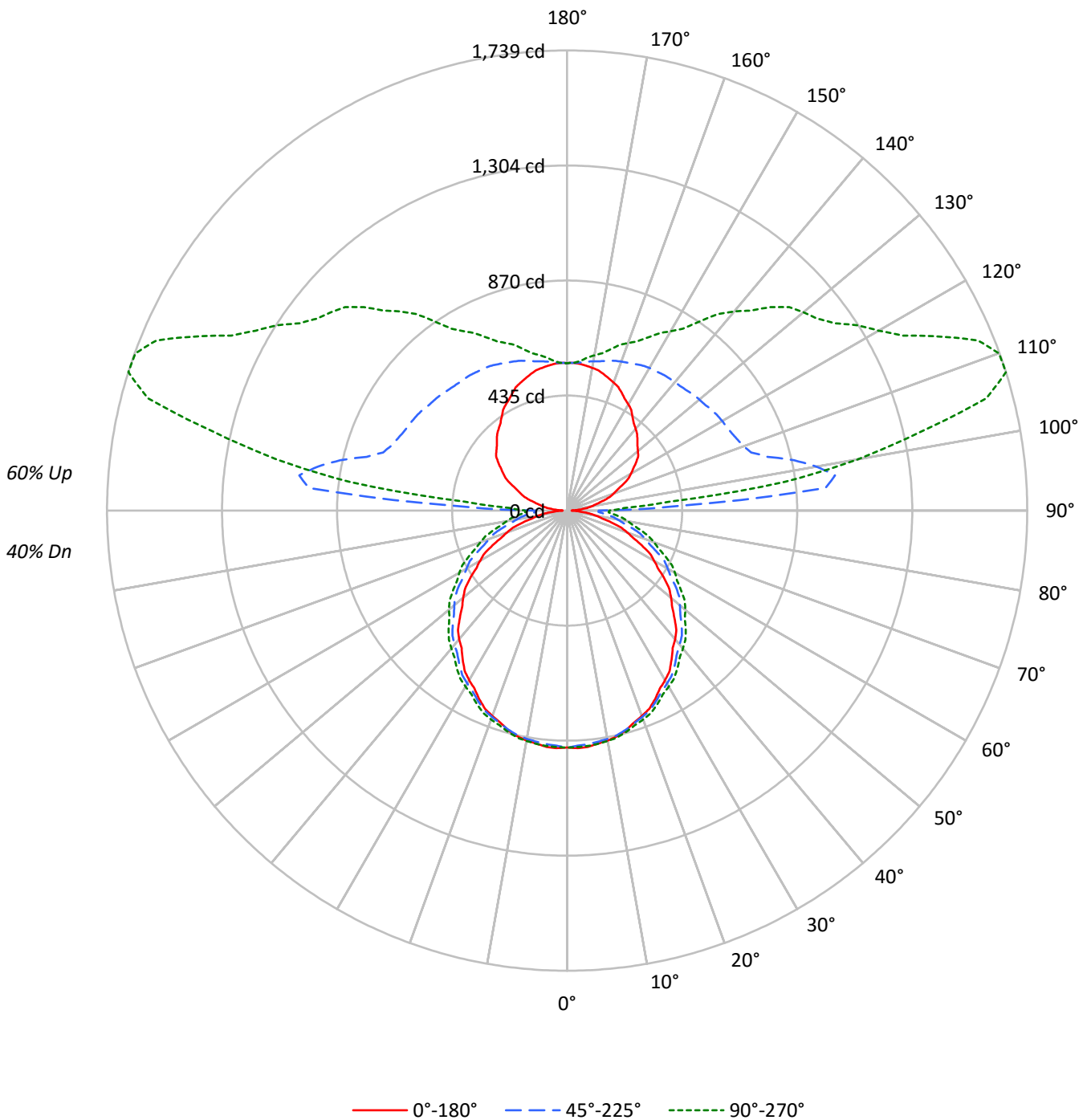
Input Watts (W): 56.9
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P332621-830

CATALOG NUMBER: S124DIP-S795D1205U830-4F0-1E-UDD-D4

Luminous Intensity Polar Plot





TEST NUMBER: P332621-830

CATALOG NUMBER: S124DIP-S795D1205U830-4F0-1E-UDD-D4

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	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°	7228	7228	7228
5°	7250	7064	7083
10°	7205	6948	6943
15°	7141	6814	6777
20°	7044	6667	6616
25°	6934	6501	6439
30°	6815	6336	6256
35°	6681	6168	6097
40°	6573	6008	5930
45°	6413	5859	5787
50°	6278	5689	5636
55°	6138	5529	5459
60°	5920	5324	5298
65°	5683	5104	5098
70°	5394	4853	4868
75°	4992	4579	4659
80°	4540	4312	4453
85°	3980	4075	4334



TEST NUMBER: P332621-830

CATALOG NUMBER: S124DIP-S795D1205U830-4F0-1E-UDD-D4

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	84.8	1.2
10°-20°	242.9	3.4
20°-30°	367.3	5.2
30°-40°	444.4	6.3
40°-50°	469.8	6.6
50°-60°	442.2	6.2
60°-70°	366.8	5.2
70°-80°	257.7	3.6
80°-90°	148.8	2.1
90°-100°	489.2	6.9
100°-110°	902.1	12.7
110°-120°	793.6	11.2
120°-130°	655.6	9.2
130°-140°	536.9	7.6
140°-150°	404.3	5.7
150°-160°	282.7	4.0
160°-170°	166.3	2.3
170°-180°	54.1	0.8
0°-30°	695.0	9.8
0°-40°	1139.4	16.0
0°-60°	2051.4	28.9
0°-90°	2824.6	39.7
90°-120°	2184.8	30.7
90°-150°	3781.7	53.2
90°-180°	4285.0	60.3
0°-180°	7109.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	895	895	895	895	895	
5°	896	893	886	894	893	85
15°	859	860	857	866	865	242
25°	786	792	795	806	807	362
35°	688	700	710	723	727	431
45°	573	593	612	628	634	443
55°	449	471	500	520	526	400
65°	311	343	377	401	410	308
75°	172	210	252	279	289	183
85°	53	95	140	169	180	57
90°	17	65	119	149	159	13
95°	49	160	980	555	391	51
105°	137	216	785	1637	1640	147
115°	232	299	688	1299	1556	230
125°	318	378	666	1094	1234	284
135°	376	447	641	954	1087	290
145°	431	493	629	790	872	271
155°	490	528	611	692	722	226
165°	533	550	586	620	630	151
175°	556	558	562	570	567	53
180°	558	558	558	558	558	



TEST NUMBER: P332621-830

CATALOG NUMBER: S124DIP-S795D1205U830-4F0-1E-UDD-D4

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	895.3	895.3	895.3	895.3	895.3	895.3	895.3	895.3	895.3	895.3	895.3
2.5°	898.5	898.0	897.4	896.9	896.4	895.4	893.9	892.5	891.1	889.7	890.9
5°	896.3	895.6	894.9	894.3	893.6	892.5	890.9	889.4	887.8	886.3	888.1
7.5°	888.6	888.3	887.9	887.5	887.0	886.2	885.0	883.6	882.3	881.1	883.1
10°	882.2	882.0	881.8	881.6	881.4	880.7	879.6	878.4	877.3	876.2	878.3
12.5°	873.5	873.4	873.4	873.3	873.3	872.9	872.1	871.3	870.5	869.8	871.7
15°	859.2	859.4	859.6	859.9	860.1	859.9	859.2	858.6	857.8	857.1	859.2
17.5°	839.7	840.4	841.0	841.8	842.4	842.6	842.5	842.4	842.3	842.2	844.2
20°	826.1	826.8	827.5	828.1	828.8	829.2	829.4	829.6	829.9	830.1	832.4
22.5°	810.9	811.7	812.6	813.4	814.3	814.9	815.3	815.7	816.1	816.5	818.7
25°	786.0	787.3	788.7	790.0	791.4	792.4	793.1	793.7	794.4	795.0	797.5
27.5°	758.4	760.3	762.2	764.2	766.2	767.7	768.7	769.7	770.7	771.8	774.0
30°	739.9	741.7	743.5	745.3	747.1	748.7	750.3	751.8	753.4	754.9	757.3
32.5°	719.8	722.0	724.2	726.2	728.4	730.3	732.1	733.8	735.6	737.3	740.1
35°	687.8	690.4	693.1	695.8	698.4	700.9	703.1	705.4	707.6	709.8	712.9
37.5°	655.4	658.6	661.7	664.7	667.8	670.7	673.4	676.2	679.0	681.7	684.9
40°	634.6	637.5	640.4	643.3	646.2	649.2	652.3	655.4	658.6	661.7	665.1
42.5°	610.6	613.8	617.1	620.3	623.6	627.0	630.7	634.3	638.0	641.6	645.4
45°	573.4	577.7	581.9	586.2	590.4	594.7	598.9	603.1	607.3	611.5	615.4
47.5°	538.0	542.3	546.7	551.1	555.4	560.1	565.0	569.9	574.8	579.7	583.6
50°	512.3	517.2	522.1	527.0	531.9	536.8	541.7	546.6	551.5	556.4	560.9
52.5°	486.6	491.5	496.4	501.3	506.2	511.5	517.1	522.7	528.4	534.0	538.4
55°	449.1	453.8	458.5	463.2	467.9	473.5	480.2	486.9	493.6	500.3	504.7
57.5°	407.3	413.0	418.9	424.6	430.4	436.6	443.3	449.9	456.6	463.2	468.4
60°	379.9	385.8	391.5	397.4	403.1	409.7	417.1	424.4	431.8	439.1	444.2
62.5°	353.5	359.9	366.2	372.5	378.8	385.7	393.0	400.4	407.7	415.1	420.2
65°	310.8	317.9	325.1	332.2	339.3	346.7	354.2	361.8	369.4	376.9	382.5
67.5°	269.7	277.3	284.8	292.4	300.0	307.8	315.9	324.0	332.2	340.3	345.9
70°	241.6	249.2	256.7	264.4	271.9	279.9	288.4	296.9	305.3	313.8	319.8
72.5°	214.3	222.1	229.9	237.6	245.3	253.7	262.8	271.7	280.8	289.7	295.6
75°	172.5	180.7	188.9	197.2	205.4	214.2	223.6	232.9	242.3	251.7	257.9
77.5°	133.4	142.0	150.8	159.6	168.2	177.6	187.4	197.2	207.0	216.8	223.1
80°	109.2	118.2	127.1	136.0	145.0	154.3	164.1	173.9	183.7	193.5	200.2
82.5°	85.2	94.4	103.8	113.0	122.2	131.9	141.7	151.5	161.3	171.1	177.9
85°	53.2	62.5	71.8	81.2	90.6	100.3	110.3	120.3	130.4	140.3	147.0
87.5°	29.9	39.4	49.2	58.4	67.8	77.2	88.3	98.0	108.2	118.5	124.7
90°	17.2	28.3	40.4	50.4	60.4	69.7	85.9	95.4	107.2	118.9	124.3
92.5°	27.7	41.5	59.8	81.2	105.2	136.8	202.0	296.5	388.9	441.9	390.1
95°	49.2	59.9	78.1	99.7	133.4	187.6	292.0	480.8	751.7	979.9	1011.1
97.5°	76.6	83.0	98.8	118.2	147.1	193.3	275.8	433.1	702.4	1021.2	1239.9
100°	94.3	100.1	113.5	132.4	159.1	201.3	274.7	407.1	639.2	956.8	1243.1
102.5°	111.8	118.7	130.4	147.9	172.9	212.9	279.9	397.3	596.0	878.3	1173.3
105°	137.1	144.9	154.9	172.4	196.6	234.7	295.5	394.6	556.3	784.7	1047.6
107.5°	167.2	173.1	182.2	199.8	222.3	259.4	315.4	406.0	544.8	729.7	945.3
110°	186.5	191.8	200.5	216.7	239.5	274.6	330.5	415.0	543.3	709.9	893.5



TEST NUMBER: P332621-830

CATALOG NUMBER: S124DIP-S795D1205U830-4F0-1E-UDD-D4

CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	205.0	210.0	219.0	234.1	256.6	291.2	345.2	424.9	544.9	698.0	862.2
115°	231.7	237.0	246.6	259.6	282.4	316.5	367.4	440.3	549.3	687.9	830.8
117.5°	260.3	264.6	272.6	285.9	306.5	341.1	389.4	456.5	554.5	680.7	813.0
120°	278.8	281.7	290.0	302.7	322.0	356.3	404.4	467.8	558.6	676.7	802.8
122.5°	296.3	298.7	306.5	317.7	338.3	371.2	418.9	478.4	562.8	671.8	791.7
125°	318.3	322.5	328.9	340.6	361.3	394.6	439.6	495.6	570.1	665.5	774.9
127.5°	338.5	341.8	349.5	363.1	384.5	417.5	459.8	510.3	574.9	657.0	753.1
130°	349.1	353.3	361.8	378.0	398.6	432.1	472.9	519.2	578.5	652.1	739.4
132.5°	360.5	363.7	374.9	390.3	412.6	443.9	484.0	528.7	582.2	648.1	727.3
135°	375.5	379.8	390.8	409.4	432.4	461.7	499.4	540.4	586.8	640.9	708.0
137.5°	391.4	395.4	407.3	424.7	448.4	475.8	510.3	547.9	588.5	636.1	691.7
140°	402.8	406.0	417.7	436.1	458.9	485.2	518.3	553.6	591.0	632.8	682.9
142.5°	414.3	417.5	428.7	446.4	468.4	493.8	525.7	557.9	593.2	631.2	675.6
145°	431.4	434.5	445.3	460.3	480.9	504.9	533.4	563.0	594.7	628.7	665.1
147.5°	450.9	451.8	461.2	476.7	493.8	515.4	542.2	568.0	595.8	624.7	655.8
150°	463.2	464.1	472.6	485.5	501.7	522.5	546.5	570.6	595.8	622.1	649.5
152.5°	473.8	473.9	482.7	494.9	509.5	528.6	550.1	572.4	594.1	617.7	642.4
155°	489.6	490.7	497.2	508.2	520.3	536.7	555.3	573.9	591.4	611.1	632.0
157.5°	505.1	505.1	511.2	519.8	530.3	543.3	559.0	573.9	588.6	604.4	621.2
160°	514.7	514.7	519.2	526.8	535.6	547.6	560.7	573.9	586.0	599.1	613.3
162.5°	523.5	522.6	526.1	532.9	540.8	550.3	562.5	573.9	583.3	593.8	606.3
165°	533.4	533.4	535.6	541.0	546.5	553.1	563.0	571.7	578.2	586.0	594.7
167.5°	543.3	542.2	543.3	547.4	550.4	555.5	562.7	569.1	573.1	578.1	584.2
170°	547.6	546.5	547.6	550.9	553.1	556.4	561.8	567.3	569.5	572.8	577.2
172.5°	552.0	550.9	551.1	553.6	554.9	557.2	561.0	565.6	566.0	567.5	571.1
175°	556.4	555.3	555.3	556.4	557.5	557.5	559.7	563.0	561.8	561.8	564.0
177.5°	558.4	557.5	556.6	557.5	557.5	557.5	558.4	560.1	558.4	558.4	559.2
180°	557.5	557.5	557.5	557.5	557.5	557.5	557.5	557.5	557.5	557.5	557.5



TEST NUMBER: P332621-830

CATALOG NUMBER: S124DIP-S795D1205U830-4F0-1E-UDD-D4

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	895.3	895.3	895.3	895.3	895.3	895.3	895.3	895.3
2.5°	892.1	893.4	894.7	895.2	895.0	894.8	894.7	894.5
5°	889.9	891.6	893.3	894.2	893.9	893.7	893.5	893.2
7.5°	885.0	887.0	889.1	889.9	889.8	889.5	889.3	889.1
10°	880.2	882.2	884.3	885.1	885.0	884.7	884.5	884.3
12.5°	873.5	875.3	877.1	878.0	878.0	877.9	877.9	877.8
15°	861.2	863.2	865.2	866.1	865.9	865.6	865.4	865.2
17.5°	846.2	848.3	850.4	851.3	851.1	850.9	850.7	850.6
20°	834.5	836.8	839.1	840.2	840.2	840.2	840.2	840.2
22.5°	821.0	823.1	825.4	826.7	827.1	827.4	827.7	828.1
25°	799.9	802.4	804.8	806.2	806.3	806.6	806.8	807.1
27.5°	776.3	778.5	780.9	782.1	782.4	782.7	783.0	783.2
30°	759.8	762.2	764.7	766.2	766.7	767.0	767.5	768.0
32.5°	742.9	745.7	748.5	750.2	750.5	751.0	751.5	752.0
35°	716.0	719.2	722.3	724.2	724.8	725.5	726.2	726.9
37.5°	688.1	691.3	694.4	696.4	697.0	697.8	698.4	699.2
40°	668.4	671.8	675.0	677.1	678.1	678.9	679.9	680.7
42.5°	649.0	652.7	656.4	658.6	659.3	660.1	660.8	661.5
45°	619.2	622.9	626.7	629.1	630.3	631.4	632.5	633.6
47.5°	587.5	591.4	595.4	597.9	599.4	600.7	602.0	603.3
50°	565.3	569.8	574.2	577.1	578.4	579.9	581.2	582.5
52.5°	542.9	547.3	551.8	554.7	556.0	557.3	558.6	560.1
55°	509.2	513.7	518.1	521.0	522.4	523.7	525.0	526.3
57.5°	473.8	479.1	484.4	487.7	488.9	490.1	491.4	492.7
60°	449.4	454.5	459.6	463.1	464.9	466.7	468.4	470.2
62.5°	425.3	430.5	435.5	439.0	440.8	442.6	444.3	446.1
65°	388.1	393.7	399.3	402.9	404.7	406.5	408.2	410.0
67.5°	351.6	357.2	362.9	366.6	368.3	370.0	371.8	373.5
70°	325.8	331.9	337.9	341.7	343.2	344.8	346.3	347.9
72.5°	301.4	307.3	313.1	316.9	318.6	320.4	322.1	323.9
75°	264.1	270.3	276.6	280.7	282.8	284.7	286.7	288.7
77.5°	229.4	235.7	242.0	246.3	248.5	250.5	252.7	254.9
80°	206.9	213.6	220.3	224.4	226.2	228.0	229.8	231.6
82.5°	184.7	191.6	198.5	202.9	204.8	206.8	208.8	210.8
85°	153.7	160.4	167.1	171.5	173.8	176.0	178.2	180.5
87.5°	131.4	138.1	144.7	148.9	151.1	153.3	155.0	157.0
90°	131.9	139.4	147.0	151.1	154.0	156.8	157.6	159.4
92.5°	322.1	275.1	248.4	230.5	219.3	215.2	213.3	215.1
95°	910.8	747.1	606.3	504.1	452.4	420.5	402.7	390.6
97.5°	1291.8	1234.4	1133.2	1022.8	946.0	882.0	851.1	830.2
100°	1409.1	1437.0	1389.3	1312.1	1218.3	1153.1	1121.8	1114.7
102.5°	1398.5	1513.1	1534.5	1504.5	1447.7	1401.1	1368.2	1362.9
105°	1304.0	1499.0	1613.0	1661.6	1665.6	1658.6	1645.0	1640.2
107.5°	1172.9	1380.2	1538.3	1639.6	1695.3	1721.8	1734.4	1738.8
110°	1093.6	1288.3	1452.2	1576.1	1655.7	1703.5	1724.9	1736.5



TEST NUMBER: P332621-830

CATALOG NUMBER: S124DIP-S795D1205U830-4F0-1E-UDD-D4

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	1034.1	1206.5	1361.6	1485.4	1575.5	1632.9	1662.3	1680.1
115°	972.5	1112.2	1245.2	1353.6	1441.6	1508.9	1545.6	1555.9
117.5°	938.9	1055.0	1160.4	1252.7	1328.3	1385.3	1422.6	1431.2
120°	922.2	1028.5	1120.6	1201.5	1265.6	1315.6	1345.9	1359.7
122.5°	907.7	1010.5	1094.7	1165.8	1220.2	1263.0	1288.7	1302.3
125°	884.3	982.7	1062.4	1125.5	1170.6	1203.7	1225.9	1233.8
127.5°	855.9	949.9	1029.3	1089.2	1134.7	1164.5	1183.6	1191.7
130°	834.3	924.9	1003.3	1064.1	1110.3	1139.1	1157.9	1165.8
132.5°	812.4	897.5	974.0	1034.6	1080.1	1112.3	1130.2	1138.1
135°	780.6	855.4	925.8	983.0	1028.1	1060.1	1079.0	1086.8
137.5°	752.4	815.9	875.4	927.1	969.2	1000.5	1016.1	1025.1
140°	736.1	790.5	842.7	890.7	930.1	955.4	971.8	981.7
142.5°	721.5	769.4	814.3	855.8	890.7	914.0	928.5	935.6
145°	701.4	740.0	774.2	806.0	834.2	853.8	865.6	871.9
147.5°	684.9	714.6	741.1	765.6	786.5	803.2	812.3	814.9
150°	675.8	701.0	722.8	742.5	760.1	774.3	780.9	782.0
152.5°	666.1	687.8	707.9	724.2	739.0	750.6	754.6	755.7
155°	651.7	669.2	685.6	698.8	709.7	718.5	721.8	721.8
157.5°	636.1	650.8	664.6	675.1	683.4	690.0	692.0	692.0
160°	626.5	638.5	650.5	659.3	665.9	672.5	673.5	673.5
162.5°	616.8	627.2	636.6	644.4	649.2	655.8	657.0	656.0
165°	603.5	610.0	617.7	623.2	627.5	632.0	630.8	629.8
167.5°	590.6	595.6	601.7	605.0	607.2	610.0	609.8	609.0
170°	582.7	586.0	590.3	593.6	595.8	596.9	595.8	595.8
172.5°	575.6	578.1	580.7	583.1	584.4	585.5	584.4	582.7
175°	566.3	567.3	569.5	569.5	569.5	571.7	569.5	567.3
177.5°	560.1	561.0	561.0	561.8	561.0	561.8	560.1	558.4
180°	557.5	557.5	557.5	557.5	557.5	557.5	557.5	557.5

(END OF REPORT)