

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: P332586-927

Luminaire Tested: **S124DIP-S795D365U927-4F0-1E-UDD-F**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P332586-927
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-S795D365U927-4F0-1E-UDD-F
Description: DEFINE 4 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 795 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER
UPLIGHT 365 LUMENS PER FOOT, NO LENS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3857.5 lumens
Efficiency: N/A
Efficacy: 110.2 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.17 / 1.3
Luminous Opening: Rectangular (W 0.33' x L: 4' x H: 0')
CIE Type: Semi-Direct

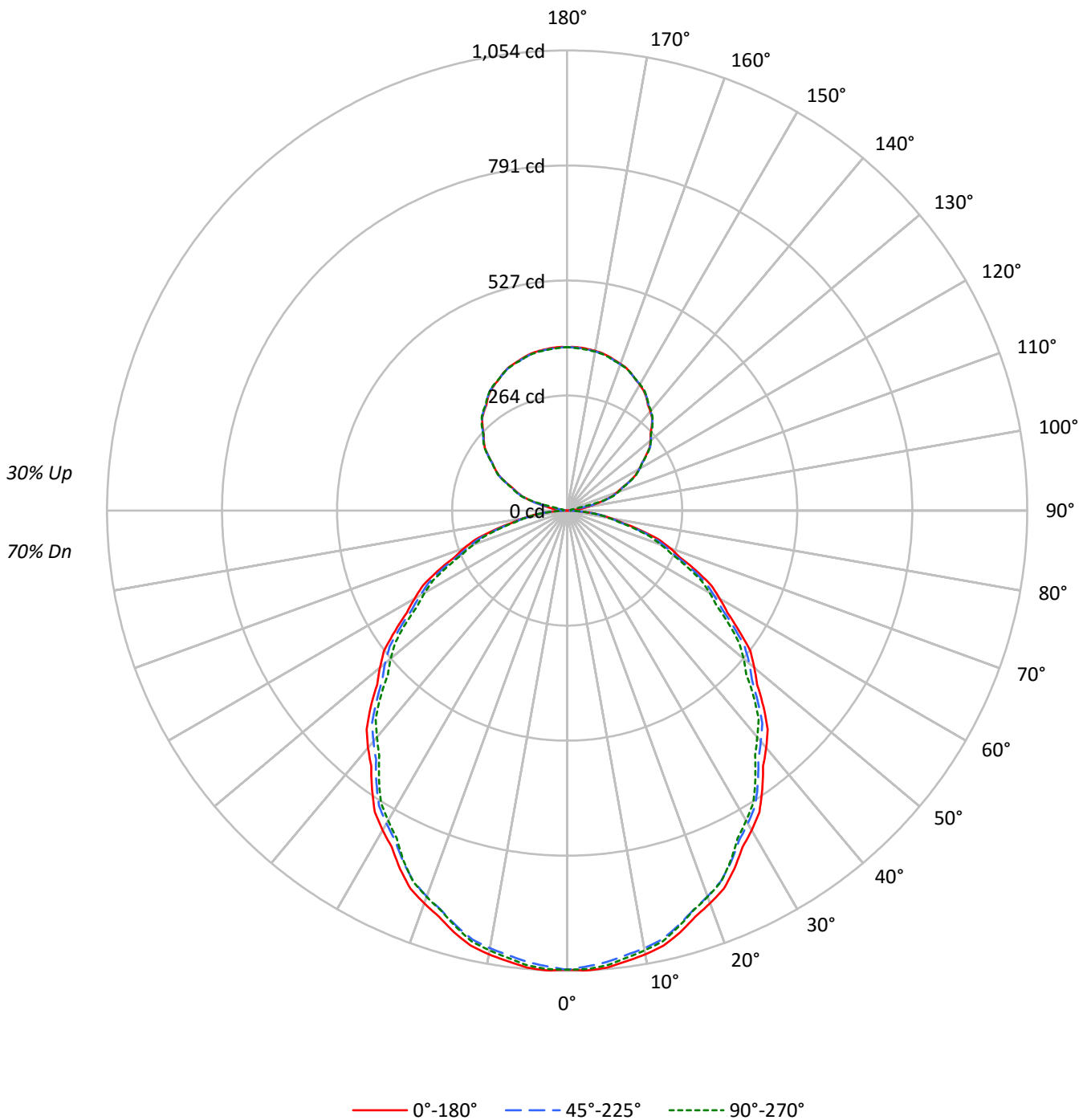
Input Watts (W): 35
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	50	30	10	0		
RCR																										
0	112	112	112	112	106	106	106	106	94	94	94	84	84	84	74	74	74	74	74	74	74	74	74	70		
1	102	98	94	90	96	93	89	86	83	80	78	74	72	70	66	64	63	63	63	63	63	63	63	59		
2	93	85	79	74	88	81	75	70	73	68	64	65	62	58	58	55	53	53	53	53	53	53	53	49		
3	85	75	67	61	80	71	64	59	64	59	54	57	53	49	51	48	45	45	45	45	45	45	45	42		
4	78	67	58	52	73	63	56	50	57	51	46	51	46	42	46	42	39	39	39	39	39	39	39	36		
5	72	59	51	45	67	57	49	43	51	45	40	46	41	37	41	37	34	34	34	34	34	34	34	31		
6	66	53	45	39	62	51	43	38	46	40	35	42	36	32	38	33	30	30	30	30	30	30	30	27		
7	61	48	40	34	58	46	39	33	42	36	31	38	33	29	34	30	27	27	27	27	27	27	27	24		
8	57	44	36	31	54	42	35	30	38	32	28	35	30	26	32	27	24	24	24	24	24	24	24	22		
9	53	40	33	27	50	39	31	26	35	29	25	32	27	23	29	25	22	22	22	22	22	22	22	20		
10	50	37	30	25	47	36	29	24	33	27	22	30	25	21	27	23	20	20	20	20	20	20	20	18		

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	8490	8490	8490
5°	8515	8413	8474
10°	8461	8344	8385
15°	8359	8226	8247
20°	8223	8079	8086
25°	8068	7911	7888
30°	7879	7713	7643
35°	7681	7508	7407
40°	7477	7273	7140
45°	7263	7042	6907
50°	7027	6836	6625
55°	6773	6570	6356
60°	6516	6273	6082
65°	6229	5989	5746
70°	5908	5611	5391
75°	5415	5153	5022
80°	4816	4621	4505
85°	4215	4057	3974



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	99.0	2.6
10°-20°	279.0	7.2
20°-30°	410.7	10.6
30°-40°	477.4	12.4
40°-50°	477.5	12.4
50°-60°	417.6	10.8
60°-70°	310.2	8.0
70°-80°	176.2	4.6
80°-90°	51.9	1.3
90°-100°	12.8	0.3
100°-110°	81.6	2.1
110°-120°	156.1	4.0
120°-130°	198.2	5.1
130°-140°	212.1	5.5
140°-150°	198.3	5.1
150°-160°	159.9	4.1
160°-170°	103.2	2.7
170°-180°	35.6	0.9
0°-30°	788.7	20.4
0°-40°	1266.2	32.8
0°-60°	2161.3	56.0
0°-90°	2699.6	70.0
90°-120°	250.6	6.5
90°-150°	859.2	22.3
90°-180°	1158.0	30.0
0°-180°	3857.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1052	1052	1052	1052	1052	
5°	1051	1047	1038	1047	1046	100
15°	1000	996	984	989	987	282
25°	906	900	888	889	886	417
35°	779	773	762	756	752	487
45°	636	630	617	608	605	490
55°	481	478	467	457	452	431
65°	326	322	314	305	301	323
75°	174	169	165	162	161	184
85°	46	45	44	44	43	50
90°	1	4	6	8	8	3
95°	15	6	6	8	8	20
105°	84	86	87	89	80	88
115°	157	158	158	158	158	155
125°	221	222	222	222	223	197
135°	274	274	275	276	276	211
145°	316	317	317	317	318	198
155°	347	347	346	347	347	160
165°	366	365	364	366	364	103
175°	374	373	373	375	372	36
180°	374	374	374	374	374	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1051.6	1051.6	1051.6	1051.6	1051.6	1051.6	1051.6	1051.6	1051.6	1051.6	1051.6
2.5°	1054.3	1053.8	1053.4	1053.0	1052.5	1051.5	1049.8	1048.1	1046.5	1044.9	1046.3
5°	1050.8	1050.0	1049.2	1048.5	1047.7	1046.3	1044.3	1042.2	1040.1	1038.1	1040.1
7.5°	1041.0	1040.2	1039.5	1038.7	1038.0	1036.5	1034.2	1031.9	1029.6	1027.3	1029.0
10°	1032.2	1031.5	1030.7	1030.0	1029.2	1027.6	1025.2	1022.8	1020.3	1017.9	1019.4
12.5°	1020.7	1020.0	1019.2	1018.5	1017.8	1016.1	1013.5	1010.9	1008.4	1005.8	1007.4
15°	1000.2	999.4	998.7	997.9	997.2	995.5	992.6	989.8	987.0	984.2	985.3
17.5°	975.4	974.5	973.5	972.6	971.7	969.9	967.3	964.6	961.9	959.3	960.0
20°	957.2	956.2	955.4	954.4	953.5	951.6	948.8	945.9	943.2	940.4	941.0
22.5°	937.7	936.4	935.2	934.0	932.7	930.7	927.9	925.1	922.3	919.5	920.5
25°	905.8	904.5	903.2	901.9	900.6	898.6	896.0	893.3	890.7	888.1	888.3
27.5°	869.4	868.1	866.7	865.4	864.0	862.1	859.7	857.3	854.8	852.4	851.9
30°	845.2	843.7	842.2	840.7	839.2	837.2	834.7	832.3	829.9	827.4	826.7
32.5°	819.5	818.2	816.8	815.5	814.1	812.1	809.6	807.0	804.5	801.8	801.0
35°	779.4	778.1	776.8	775.5	774.2	772.2	769.6	767.0	764.4	761.8	760.4
37.5°	737.1	735.9	734.7	733.6	732.3	730.3	727.5	724.7	721.9	719.1	717.6
40°	709.5	708.0	706.5	705.0	703.5	701.3	698.5	695.7	692.9	690.1	688.2
42.5°	679.9	678.9	678.0	677.2	676.2	674.2	671.1	668.0	664.9	661.8	659.7
45°	636.2	634.9	633.6	632.2	631.0	628.8	625.8	622.8	619.8	616.8	614.7
47.5°	590.5	589.6	588.7	587.8	586.9	585.1	582.3	579.6	576.8	574.0	571.6
50°	559.5	558.7	558.0	557.2	556.5	554.8	552.2	549.6	546.9	544.3	541.7
52.5°	529.2	528.3	527.4	526.5	525.5	523.7	520.9	518.2	515.4	512.6	510.3
55°	481.2	480.5	480.0	479.4	478.9	477.3	474.7	472.1	469.4	466.8	464.5
57.5°	435.3	434.7	434.0	433.4	432.8	431.1	428.6	426.0	423.4	420.8	418.7
60°	403.6	402.7	401.7	400.8	399.9	398.2	395.8	393.3	390.9	388.5	386.7
62.5°	372.6	371.9	371.1	370.3	369.5	367.8	365.2	362.6	360.0	357.4	355.9
65°	326.1	325.2	324.2	323.3	322.3	320.9	319.1	317.2	315.3	313.5	311.6
67.5°	279.2	278.4	277.5	276.6	275.8	274.5	272.7	270.8	269.1	267.3	265.5
70°	250.3	249.0	247.6	246.3	245.0	243.6	242.1	240.6	239.1	237.7	236.1
72.5°	219.3	217.9	216.7	215.3	214.0	212.8	211.6	210.3	209.1	207.9	206.8
75°	173.6	172.6	171.7	170.8	169.8	168.9	167.9	167.0	166.1	165.2	164.4
77.5°	129.9	129.5	129.1	128.7	128.3	127.7	126.8	126.0	125.2	124.4	124.1
80°	103.6	103.1	102.5	102.0	101.4	100.9	100.5	100.2	99.8	99.4	99.0
82.5°	78.0	77.8	77.5	77.2	77.0	76.8	76.8	76.7	76.6	76.5	76.3
85°	45.5	45.5	45.5	45.5	45.5	45.3	44.9	44.6	44.2	43.8	43.8
87.5°	17.7	17.7	17.7	17.7	17.7	17.6	17.6	17.5	17.4	17.4	17.5
90°	0.9	1.5	2.2	2.9	3.6	4.2	4.7	5.1	5.6	6.2	6.5
92.5°	3.6	3.6	3.6	3.6	3.6	4.0	4.4	4.9	5.5	5.9	6.3
95°	15.4	13.3	11.2	9.0	7.0	5.9	5.9	6.0	6.1	6.2	6.5
97.5°	32.7	34.0	35.3	36.7	37.9	35.2	28.2	21.3	14.3	7.4	7.4
100°	45.9	47.1	48.2	49.3	50.4	46.7	38.1	29.5	20.9	12.4	11.2
102.5°	60.7	61.6	62.3	63.1	64.0	63.8	62.7	61.6	60.4	59.3	47.9
105°	84.3	84.6	85.0	85.4	85.8	86.1	86.4	86.7	87.1	87.4	87.9
107.5°	106.2	106.3	106.5	106.7	106.9	107.2	107.7	108.1	108.4	108.9	109.2
110°	121.0	121.1	121.3	121.5	121.7	122.0	122.3	122.7	123.1	123.5	123.6



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	135.3	135.6	135.9	136.3	136.7	136.9	137.0	137.2	137.4	137.6	137.5
115°	157.3	157.6	157.7	157.9	158.1	158.1	158.1	158.0	158.0	157.9	158.0
117.5°	177.2	177.4	177.7	178.0	178.2	178.4	178.6	178.7	178.8	179.0	179.0
120°	190.7	190.9	191.2	191.4	191.6	191.7	191.7	191.6	191.5	191.5	191.6
122.5°	203.2	203.4	203.5	203.7	203.8	203.9	204.0	204.1	204.1	204.3	204.3
125°	221.2	221.4	221.7	221.9	222.2	222.2	222.1	222.0	221.9	221.7	221.9
127.5°	238.2	238.3	238.3	238.4	238.4	238.6	238.9	239.2	239.5	239.8	239.7
130°	249.1	249.2	249.3	249.4	249.5	249.5	249.7	249.9	250.1	250.3	250.3
132.5°	259.3	259.4	259.4	259.6	259.7	259.8	260.1	260.3	260.5	260.8	260.9
135°	274.3	274.3	274.3	274.2	274.1	274.2	274.5	274.7	275.0	275.2	275.4
137.5°	287.7	287.8	287.8	287.8	287.9	288.0	288.3	288.5	288.8	289.1	289.2
140°	296.5	296.6	296.8	296.8	297.0	297.1	297.2	297.4	297.5	297.6	297.8
142.5°	304.4	304.5	304.8	305.0	305.2	305.4	305.5	305.5	305.6	305.7	305.8
145°	316.4	316.6	316.7	317.0	317.1	317.2	317.2	317.2	317.2	317.2	317.3
147.5°	325.9	326.3	326.6	327.0	327.3	327.5	327.4	327.3	327.3	327.3	327.3
150°	332.9	333.1	333.4	333.7	333.9	334.0	333.9	333.8	333.7	333.7	333.7
152.5°	338.7	338.9	339.1	339.3	339.5	339.5	339.5	339.3	339.2	339.1	339.2
155°	346.9	347.0	347.0	347.1	347.1	347.1	346.9	346.7	346.5	346.3	346.6
157.5°	353.8	353.7	353.7	353.6	353.6	353.5	353.3	353.1	352.8	352.7	353.0
160°	357.8	357.6	357.4	357.3	357.0	357.0	356.9	356.8	356.7	356.6	357.0
162.5°	361.4	361.2	360.9	360.7	360.4	360.3	360.2	360.1	360.1	360.0	360.4
165°	365.9	365.6	365.3	365.0	364.6	364.5	364.5	364.5	364.5	364.5	365.0
167.5°	369.5	369.2	368.8	368.5	368.2	368.0	368.0	368.0	367.9	367.9	368.4
170°	371.5	371.1	370.7	370.4	370.0	369.9	369.9	370.0	370.0	370.1	370.6
172.5°	372.9	372.5	372.1	371.8	371.4	371.2	371.3	371.4	371.4	371.5	371.9
175°	374.3	373.9	373.6	373.2	372.8	372.6	372.7	372.8	372.9	372.9	373.5
177.5°	375.0	374.6	374.3	373.9	373.6	373.4	373.6	373.7	373.8	373.8	374.3
180°	374.3	374.3	374.3	374.3	374.3	374.3	374.3	374.3	374.3	374.3	374.3



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	1051.6	1051.6	1051.6	1051.6	1051.6	1051.6	1051.6	1051.6
2.5°	1047.8	1049.3	1050.8	1051.5	1051.4	1051.2	1051.1	1050.9
5°	1042.2	1044.3	1046.3	1047.2	1046.8	1046.5	1046.1	1045.7
7.5°	1030.6	1032.3	1033.9	1034.6	1034.4	1034.2	1034.0	1033.7
10°	1020.9	1022.4	1023.9	1024.5	1024.1	1023.7	1023.3	1022.9
12.5°	1009.1	1010.7	1012.3	1012.9	1012.4	1011.9	1011.3	1010.8
15°	986.4	987.5	988.6	989.0	988.4	987.9	987.3	986.7
17.5°	960.7	961.4	962.1	962.3	961.9	961.5	961.2	960.8
20°	941.5	942.1	942.6	942.7	942.3	942.0	941.6	941.2
22.5°	921.5	922.5	923.5	923.7	923.0	922.3	921.6	921.0
25°	888.5	888.7	888.9	888.6	887.9	887.1	886.4	885.6
27.5°	851.5	851.0	850.6	849.9	849.0	848.0	847.1	846.1
30°	825.9	825.2	824.4	823.6	822.7	821.7	820.8	819.9
32.5°	800.0	799.2	798.3	797.3	796.4	795.4	794.5	793.6
35°	759.1	757.8	756.5	755.3	754.4	753.5	752.6	751.6
37.5°	716.2	714.8	713.4	712.1	710.8	709.6	708.4	707.1
40°	686.3	684.5	682.6	681.2	680.2	679.4	678.4	677.5
42.5°	657.4	655.3	653.1	651.7	651.1	650.5	649.8	649.2
45°	612.7	610.6	608.6	607.3	606.7	606.1	605.5	605.0
47.5°	569.3	567.0	564.7	562.8	561.4	560.0	558.6	557.1
50°	539.1	536.5	533.9	532.0	530.8	529.7	528.6	527.5
52.5°	508.0	505.6	503.4	501.5	500.1	498.7	497.3	495.8
55°	462.3	460.1	457.8	456.1	455.0	453.9	452.7	451.6
57.5°	416.5	414.4	412.3	410.7	409.6	408.4	407.4	406.3
60°	385.1	383.4	381.7	380.4	379.5	378.5	377.6	376.7
62.5°	354.3	352.8	351.3	350.1	349.1	348.2	347.3	346.3
65°	309.7	307.8	305.9	304.6	303.6	302.7	301.7	300.8
67.5°	263.7	261.9	260.1	259.0	258.8	258.6	258.3	258.0
70°	234.6	233.1	231.6	230.6	230.0	229.5	228.9	228.4
72.5°	205.6	204.4	203.2	202.3	201.7	201.1	200.6	200.0
75°	163.7	162.9	162.2	161.7	161.5	161.3	161.1	161.0
77.5°	123.9	123.7	123.5	123.1	122.6	122.2	121.7	121.2
80°	98.7	98.3	97.9	97.7	97.4	97.3	97.1	96.9
82.5°	76.0	75.8	75.6	75.4	75.3	75.0	74.9	74.6
85°	43.8	43.8	43.8	43.7	43.6	43.3	43.2	42.9
87.5°	17.6	17.7	17.7	17.7	17.7	17.8	17.8	17.8
90°	6.9	7.3	7.7	7.9	8.0	8.2	8.2	8.4
92.5°	6.7	7.1	7.4	7.6	7.7	7.7	7.7	7.8
95°	6.9	7.3	7.7	7.8	7.9	8.0	8.1	8.1
97.5°	7.4	7.5	7.5	7.6	7.7	7.7	7.8	7.8
100°	10.2	9.1	8.1	7.6	7.7	7.7	7.8	7.8
102.5°	36.5	25.1	13.7	8.0	8.0	8.0	8.1	8.1
105°	88.5	89.0	89.6	88.7	86.5	84.3	82.0	79.8
107.5°	109.5	109.7	110.0	110.3	110.5	110.7	111.0	111.2
110°	123.7	123.8	124.0	124.1	124.3	124.5	124.7	124.8



TEST NUMBER: P332586-927

CATALOG NUMBER: S124DIP-S795D365U927-4F0-1E-UDD-F

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	137.5	137.5	137.4	137.6	137.8	138.1	138.3	138.6
115°	158.1	158.3	158.4	158.4	158.4	158.4	158.4	158.4
117.5°	178.9	178.9	178.9	178.8	178.8	178.8	178.8	178.7
120°	191.7	191.9	192.0	192.0	191.9	191.7	191.6	191.5
122.5°	204.4	204.5	204.5	204.5	204.4	204.3	204.1	204.1
125°	222.1	222.3	222.4	222.6	222.7	222.8	222.8	222.8
127.5°	239.7	239.6	239.6	239.6	239.6	239.5	239.4	239.4
130°	250.4	250.5	250.6	250.6	250.6	250.6	250.6	250.6
132.5°	260.9	261.0	261.1	261.1	261.0	260.9	260.9	260.9
135°	275.4	275.6	275.7	275.8	275.9	276.1	276.2	276.3
137.5°	289.4	289.5	289.6	289.7	289.6	289.6	289.5	289.5
140°	297.9	298.2	298.3	298.5	298.6	298.6	298.7	298.7
142.5°	305.9	306.1	306.2	306.3	306.3	306.3	306.3	306.3
145°	317.3	317.4	317.4	317.5	317.7	317.8	317.9	318.1
147.5°	327.3	327.4	327.4	327.5	327.6	327.6	327.6	327.7
150°	333.7	333.7	333.7	333.7	333.8	333.9	333.9	334.0
152.5°	339.3	339.4	339.5	339.5	339.5	339.5	339.5	339.4
155°	346.8	347.1	347.3	347.4	347.1	347.0	346.8	346.6
157.5°	353.3	353.6	353.9	353.9	353.6	353.3	353.0	352.7
160°	357.4	357.8	358.1	358.1	357.8	357.4	357.0	356.6
162.5°	360.8	361.2	361.6	361.5	361.1	360.7	360.2	359.8
165°	365.5	366.0	366.5	366.5	365.9	365.4	364.8	364.2
167.5°	369.0	369.6	370.0	370.0	369.4	368.8	368.1	367.6
170°	371.1	371.6	372.1	372.0	371.5	370.8	370.2	369.6
172.5°	372.5	373.0	373.4	373.4	372.7	372.0	371.4	370.7
175°	374.1	374.6	375.2	375.1	374.3	373.6	372.8	372.1
177.5°	374.7	375.1	375.5	375.3	374.8	374.1	373.6	373.0
180°	374.3	374.3	374.3	374.3	374.3	374.3	374.3	374.3

(END OF REPORT)