

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: P332624-927

Luminaire Tested: **S124DIP-S795D1205U927-4F0-1E-UDD-F4**

Issue Date: 3/3/2020

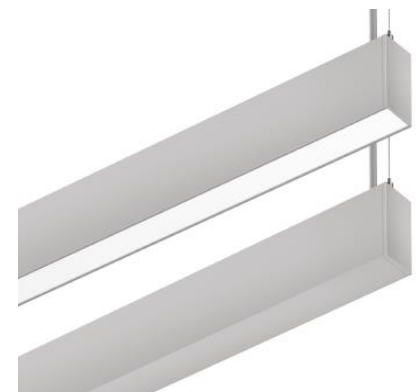
**Test Information**

Test Method: LM-79-08  
Report Number: P332624-927  
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-S795D1205U927-4F0-1E-UDD-F4  
Description: DEFINE 4 DIRECT-INDIRECT PENDANT LED LUMINAIRE  
DOWNLIGHT 795 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER  
UPLIGHT 1205 LUMENS PER FOOT, BATWING OPTIC  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 6108.8 lumens  
Efficiency: N/A  
Efficacy: 107.4 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: General Diffuse

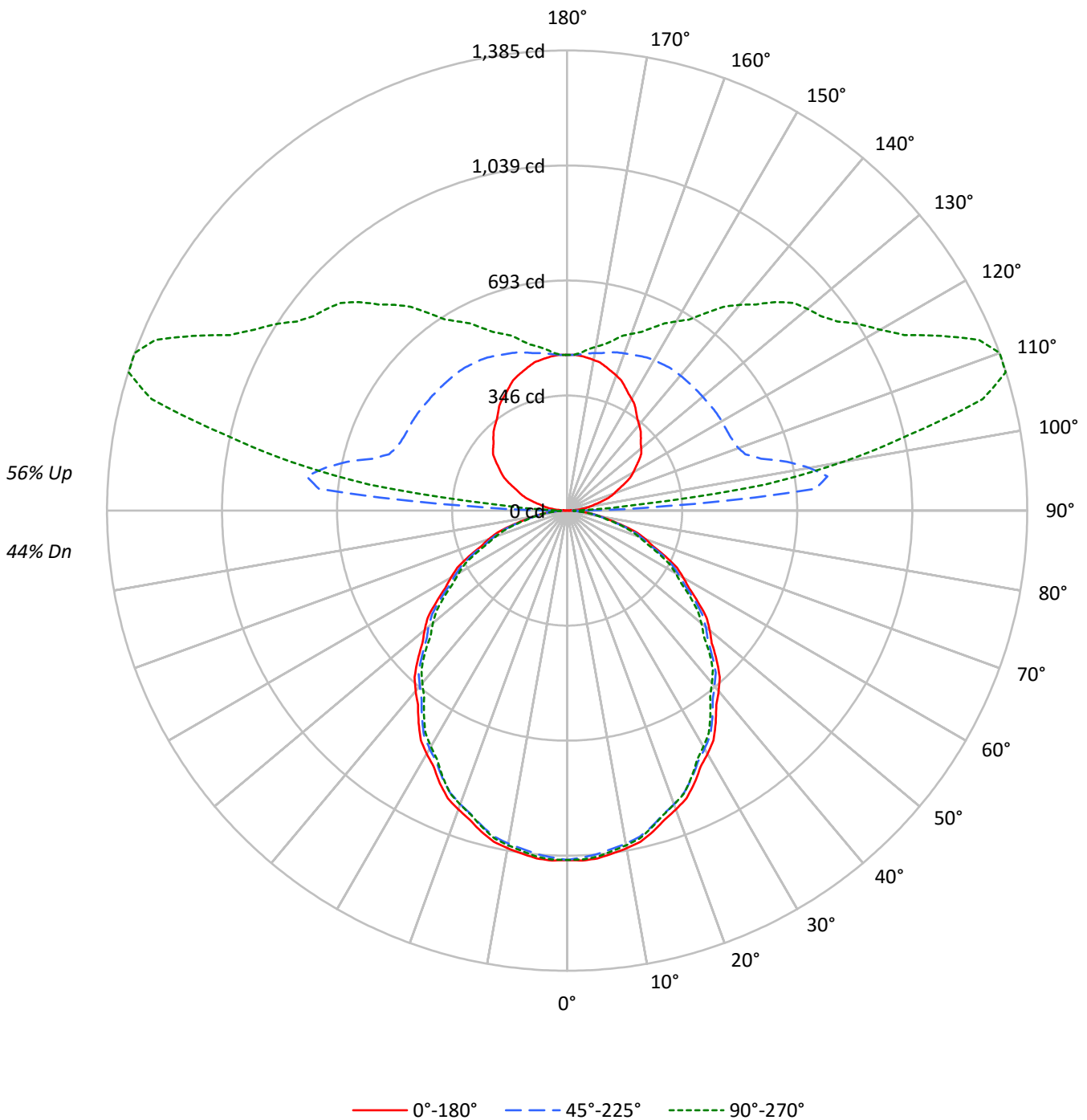
Input Watts (W): 56.9  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	0
RCR																		
0	106	106	106	106	97	97	97	97	80	80	80	65	65	65	51	51	51	44
1	96	92	88	85	88	84	81	78	70	68	66	57	55	54	45	44	43	37
2	88	80	74	69	80	74	69	64	61	58	54	50	47	45	39	38	36	31
3	80	71	63	58	73	65	59	54	54	49	46	44	41	38	35	33	31	26
4	73	63	55	49	67	58	51	45	48	43	39	39	36	33	31	29	26	23
5	67	56	48	42	61	51	44	39	43	38	33	35	31	28	28	25	23	20
6	62	50	42	36	56	46	39	34	39	33	29	32	28	25	26	23	20	17
7	57	45	37	32	52	42	35	30	35	30	26	29	25	22	23	20	18	15
8	53	41	33	28	48	38	31	26	32	27	23	27	22	19	21	18	16	14
9	49	37	30	25	45	34	28	23	29	24	20	24	20	17	20	17	15	12
10	46	34	27	22	42	32	25	21	27	22	18	23	19	16	18	15	13	11

**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	1.6
10°-20°	279.0	4.6
20°-30°	410.7	6.7
30°-40°	477.4	7.8
40°-50°	477.5	7.8
50°-60°	417.6	6.8
60°-70°	310.2	5.1
70°-80°	176.2	2.9
80°-90°	53.4	0.9
90°-100°	338.4	5.5
100°-110°	704.3	11.5
110°-120°	630.9	10.3
120°-130°	530.7	8.7
130°-140°	442.5	7.2
140°-150°	338.0	5.5
150°-160°	237.6	3.9
160°-170°	139.8	2.3
170°-180°	45.5	0.7
0°-30°	788.7	12.9
0°-40°	1266.2	20.7
0°-60°	2161.3	35.4
0°-90°	2701.1	44.2
90°-120°	1673.6	27.4
90°-150°	2984.8	48.9
90°-180°	3408.0	55.8
0°-180°	6108.8	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	7	17	18	19	4
95°	30	96	750	371	225	34
105°	108	156	604	1300	1295	115
115°	190	238	538	1035	1244	188
125°	264	314	536	880	992	235
135°	314	374	531	782	887	243
145°	362	414	528	659	724	227
155°	412	444	514	582	607	190
165°	448	462	492	522	529	127
175°	468	469	472	479	477	44
180°	469	469	469	469	469	



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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	17.9	18.3	18.4	18.4	18.2	19.2	19.1	19.3	19.5	19.3
90°	1.0	2.8	5.5	6.4	7.4	7.4	12.9	12.9	14.7	16.6	15.7
92.5°	10.5	15.3	23.9	35.2	48.6	67.7	114.5	185.9	255.6	292.0	243.2
95°	30.3	33.1	42.4	54.3	76.4	115.1	195.1	346.1	566.1	750.2	771.4
97.5°	54.5	54.5	62.4	73.4	92.4	124.8	186.5	311.2	529.8	790.2	969.2
100°	69.9	69.9	76.4	87.5	105.0	134.4	188.7	292.7	480.5	740.1	975.7
102.5°	84.7	86.2	91.9	102.2	118.9	146.9	196.1	287.6	447.3	677.5	920.5
105°	107.7	110.4	115.1	126.1	142.7	169.4	213.6	289.9	418.8	603.9	820.1
107.5°	133.1	134.9	139.6	151.3	167.2	193.5	234.0	303.6	413.7	562.6	739.2
110°	150.0	151.9	156.5	167.5	184.1	209.0	249.5	313.9	415.2	548.7	698.7



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	166.3	168.1	173.4	183.7	200.3	225.1	264.2	325.0	419.5	542.0	675.8
115°	189.6	192.4	198.8	208.0	225.5	250.4	287.2	342.5	428.0	538.5	654.5
117.5°	213.9	216.5	222.2	232.3	248.7	274.5	309.5	360.3	437.0	537.6	644.9
120°	230.1	232.0	238.4	248.5	264.2	289.9	325.0	372.8	443.7	537.6	639.8
122.5°	244.9	246.7	253.2	262.5	279.6	304.7	339.7	384.6	450.4	536.9	633.9
125°	264.2	267.8	273.4	283.5	301.0	326.8	359.9	402.3	460.3	535.8	624.1
127.5°	281.3	284.2	290.9	302.5	320.7	346.7	378.7	417.6	468.2	533.7	611.0
130°	290.9	294.5	301.9	315.8	333.2	359.9	391.3	427.1	474.0	533.0	602.9
132.5°	300.5	303.4	313.0	326.1	345.0	370.3	401.6	436.7	479.2	532.3	595.6
135°	313.9	317.6	326.8	342.5	361.8	385.7	416.1	449.2	487.0	531.2	584.6
137.5°	327.3	330.8	341.0	355.8	376.0	398.8	427.1	458.0	491.5	530.9	575.0
140°	336.9	339.7	349.8	365.4	384.8	406.9	434.5	463.9	495.3	530.2	569.8
142.5°	347.2	350.0	359.3	374.3	392.8	414.2	441.1	468.3	498.2	530.2	565.4
145°	361.8	364.6	373.8	386.6	404.1	424.4	448.3	473.2	499.9	528.4	557.9
147.5°	378.1	379.1	387.1	400.4	414.9	433.2	455.7	477.4	500.7	525.1	551.0
150°	388.5	389.4	396.7	407.8	421.6	439.1	459.3	479.6	500.7	522.8	545.9
152.5°	398.0	398.2	405.6	415.9	428.3	444.3	462.3	481.1	499.3	519.2	540.0
155°	411.5	412.4	417.9	427.1	437.3	451.1	466.7	482.4	497.1	513.7	531.2
157.5°	424.5	424.5	429.7	436.9	445.7	456.6	469.8	482.4	494.7	507.9	522.1
160°	432.6	432.6	436.3	442.8	450.1	460.3	471.3	482.4	492.5	503.5	515.5
162.5°	440.0	439.3	442.2	447.9	454.6	462.5	472.8	482.4	490.3	499.1	509.6
165°	448.3	448.3	450.1	454.7	459.3	464.9	473.2	480.5	486.0	492.5	499.9
167.5°	456.6	455.7	456.6	460.1	462.6	466.9	472.9	478.3	481.6	485.8	491.0
170°	460.3	459.3	460.3	463.0	464.9	467.6	472.2	476.8	478.6	481.4	485.1
172.5°	463.9	463.0	463.2	465.2	466.4	468.3	471.5	475.4	475.7	477.0	480.0
175°	467.6	466.7	466.7	467.6	468.6	468.6	470.4	473.2	472.2	472.2	474.0
177.5°	469.3	468.6	467.8	468.6	468.6	468.6	469.3	470.7	469.3	469.3	470.0
180°	468.6	468.6	468.6	468.6	468.6	468.6	468.6	468.6	468.6	468.6	468.6



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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°	19.5	19.6	19.9	19.9	20.0	20.2	20.0	20.0
90°	16.6	17.5	18.4	18.4	19.3	20.3	19.3	19.3
92.5°	180.8	136.0	108.3	89.8	79.0	74.0	70.9	70.9
95°	682.1	539.4	416.1	326.8	281.7	253.2	236.5	224.6
97.5°	1007.8	954.7	864.7	768.7	702.5	647.1	619.5	600.4
100°	1110.2	1128.5	1083.5	1015.3	935.3	879.1	851.5	844.1
102.5°	1105.0	1196.3	1209.3	1181.0	1131.9	1091.2	1062.1	1056.2
105°	1030.9	1190.3	1281.4	1319.1	1321.0	1313.6	1300.7	1295.1
107.5°	925.8	1095.4	1223.8	1305.8	1351.3	1372.3	1381.5	1383.9
110°	862.5	1021.8	1155.2	1256.5	1321.8	1360.5	1377.1	1385.4





TEST NUMBER: P332624-927

CATALOG NUMBER: S124DIP-S795D1205U927-4F0-1E-UDD-F4

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	816.1	957.0	1083.1	1184.3	1258.5	1305.3	1328.5	1342.0
115°	769.5	882.8	990.5	1078.9	1151.6	1206.8	1236.3	1243.6
117.5°	746.7	840.4	925.1	1000.1	1062.1	1108.5	1138.3	1144.0
120°	736.4	822.0	895.6	961.0	1013.5	1054.0	1077.9	1088.1
122.5°	727.5	810.2	877.3	934.5	978.9	1013.5	1033.7	1043.9
125°	712.5	791.6	855.2	905.8	942.6	969.3	986.8	992.3
127.5°	694.0	769.8	833.1	881.1	918.1	941.9	956.6	962.1
130°	679.4	752.1	814.7	863.5	901.2	924.2	938.9	944.4
132.5°	663.8	732.2	793.3	842.1	879.1	905.1	919.0	924.6
135°	642.5	702.3	758.5	804.5	841.4	867.1	881.9	887.4
137.5°	623.2	673.8	721.1	762.7	797.2	822.6	834.7	841.4
140°	612.1	655.4	696.8	735.5	767.7	788.0	800.8	808.2
142.5°	601.8	639.9	675.5	709.0	737.5	756.3	767.7	772.9
145°	587.3	618.6	646.2	672.0	695.0	710.7	719.9	724.5
147.5°	575.4	600.2	622.3	642.5	659.5	672.9	679.9	681.5
150°	568.0	589.1	607.5	624.1	638.8	650.8	656.3	657.3
152.5°	559.8	578.1	595.0	608.6	621.2	630.9	634.2	635.2
155°	547.7	562.4	576.2	587.3	596.5	603.9	606.7	606.7
157.5°	534.6	547.0	558.6	567.4	574.4	580.0	581.6	581.6
160°	526.6	536.6	546.8	554.1	559.7	565.2	566.1	566.1
162.5°	518.4	527.1	535.0	541.6	545.7	551.2	552.2	551.4
165°	507.2	512.7	519.2	523.8	527.4	531.2	530.2	529.3
167.5°	496.4	500.6	505.7	508.5	510.3	512.7	512.5	511.8
170°	489.7	492.5	496.1	498.9	500.7	501.7	500.7	500.7
172.5°	483.8	485.8	488.1	490.0	491.2	492.1	491.2	489.7
175°	475.9	476.8	478.6	478.6	478.6	480.5	478.6	476.8
177.5°	470.7	471.5	471.5	472.2	471.5	472.2	470.7	469.3
180°	468.6	468.6	468.6	468.6	468.6	468.6	468.6	468.6

(END OF REPORT)