

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: P332612

Luminaire Tested: **S124DIP-S795D1035U835-4F0-1E-UDD-D4**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P332612  
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-S795D1035U835-4F0-1E-UDD-D4  
Description: DEFINE 4 DIRECT-INDIRECT PENDANT LED LUMINAIRE  
DOWNLIGHT 795 LUMENS PER FOOT, DROP SATIN WHITE DIFFUSER  
UPLIGHT 1035 LUMENS PER FOOT, BATWING OPTIC  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 6936.4 lumens  
Efficiency: N/A  
Efficacy: 133.4 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

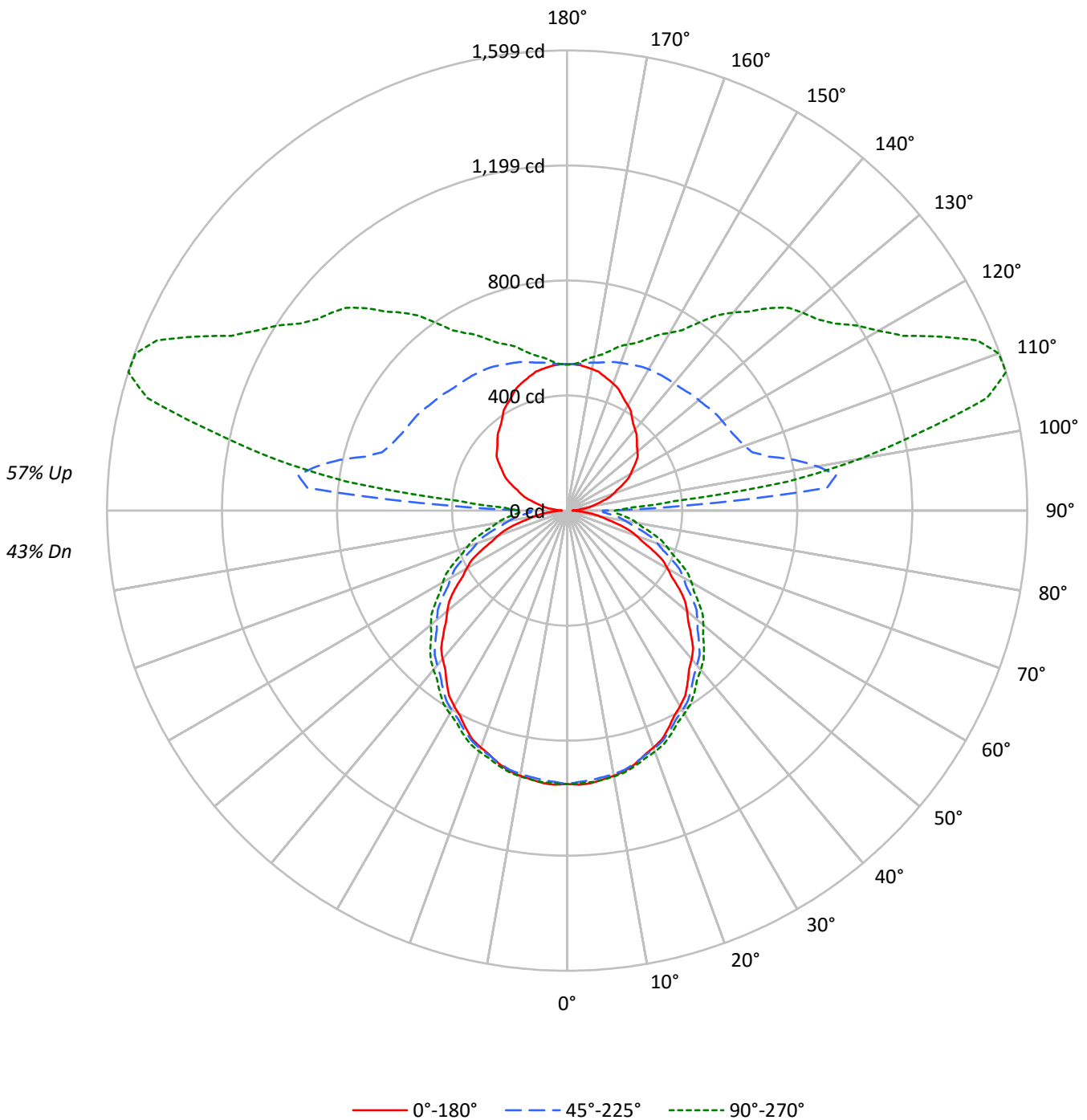
Input Watts (W): 52  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	50	30	10	0	
RCR																						
0	106	106	106	106	96	96	96	96	80	80	80	64	64	64	50	50	50	43				43
1	95	91	87	83	87	83	79	76	68	66	63	55	53	52	43	41	40				35	
2	86	79	72	67	79	72	66	62	59	55	52	48	45	42	37	35	33				28	
3	79	69	61	55	71	63	56	51	52	47	43	42	38	35	32	30	28				23	
4	72	61	53	46	65	56	48	43	46	41	36	37	33	30	29	26	24				20	
5	66	54	46	39	60	49	42	37	41	35	31	33	29	26	26	23	21				17	
6	60	48	40	34	55	44	37	32	37	31	27	30	26	22	23	20	18				15	
7	56	43	35	30	51	40	33	28	33	28	24	27	23	20	21	18	16				13	
8	52	39	31	26	47	36	29	24	30	25	21	25	21	17	19	16	14				12	
9	48	36	28	23	44	33	26	22	28	22	19	23	19	16	18	15	13				10	
10	45	33	25	21	41	30	24	19	25	20	17	21	17	14	17	14	11				9	

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	7668	7668	7668
5°	7692	7494	7516
10°	7645	7371	7366
15°	7577	7230	7190
20°	7473	7073	7019
25°	7357	6898	6831
30°	7231	6723	6637
35°	7088	6544	6468
40°	6974	6374	6291
45°	6804	6217	6140
50°	6661	6036	5980
55°	6513	5866	5792
60°	6282	5649	5621
65°	6029	5415	5409
70°	5722	5149	5165
75°	5296	4857	4943
80°	4819	4575	4724
85°	4219	4325	4598



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	89.9	1.3
10°-20°	257.7	3.7
20°-30°	389.7	5.6
30°-40°	471.5	6.8
40°-50°	498.5	7.2
50°-60°	469.1	6.8
60°-70°	389.2	5.6
70°-80°	273.4	3.9
80°-90°	157.4	2.3
90°-100°	458.8	6.6
100°-110°	831.8	12.0
110°-120°	729.8	10.5
120°-130°	601.2	8.7
130°-140°	491.0	7.1
140°-150°	368.9	5.3
150°-160°	257.7	3.7
160°-170°	151.6	2.2
170°-180°	49.3	0.7
0°-30°	737.4	10.6
0°-40°	1208.8	17.4
0°-60°	2176.4	31.4
0°-90°	2996.4	43.2
90°-120°	2020.4	29.1
90°-150°	3481.4	50.2
90°-180°	3940.0	56.8
0°-180°	6936.4	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	950	950	950	950	950	
5°	951	948	940	948	948	90
15°	912	912	909	918	918	257
25°	834	840	844	855	856	384
35°	730	742	753	767	771	457
45°	608	629	649	666	672	470
55°	476	499	531	551	558	424
65°	330	364	400	426	435	327
75°	183	223	267	296	306	195
85°	56	101	149	180	192	60
90°	18	68	123	155	166	13
95°	47	153	906	523	374	48
105°	126	201	725	1506	1510	135
115°	212	275	634	1195	1430	211
125°	291	345	611	1004	1133	259
135°	343	408	586	874	995	265
145°	393	449	573	721	796	247
155°	446	482	557	631	658	206
165°	486	501	534	566	574	137
175°	507	508	512	519	517	48
180°	508	508	508	508	508	



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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	949.9	949.9	949.9	949.9	949.9	949.9	949.9	949.9	949.9	949.9	949.9
2.5°	953.3	952.7	952.1	951.6	951.0	950.0	948.4	946.9	945.4	943.9	945.2
5°	950.9	950.2	949.5	948.8	948.1	946.9	945.2	943.6	941.9	940.3	942.2
7.5°	942.8	942.4	942.0	941.6	941.1	940.2	938.9	937.5	936.1	934.8	936.9
10°	936.0	935.8	935.6	935.3	935.1	934.4	933.2	932.0	930.8	929.6	931.8
12.5°	926.7	926.6	926.6	926.5	926.5	926.1	925.3	924.4	923.6	922.8	924.8
15°	911.6	911.8	912.0	912.3	912.5	912.3	911.6	910.9	910.1	909.4	911.6
17.5°	890.9	891.6	892.3	893.1	893.8	894.0	893.9	893.8	893.6	893.5	895.7
20°	876.5	877.2	877.9	878.6	879.3	879.8	880.0	880.2	880.5	880.7	883.1
22.5°	860.3	861.2	862.1	863.0	863.9	864.6	865.0	865.4	865.8	866.3	868.6
25°	833.9	835.3	836.8	838.2	839.6	840.7	841.4	842.1	842.8	843.5	846.1
27.5°	804.6	806.6	808.7	810.8	812.9	814.5	815.6	816.6	817.7	818.8	821.2
30°	785.0	786.9	788.8	790.7	792.6	794.3	796.0	797.6	799.3	800.9	803.5
32.5°	763.7	766.0	768.3	770.5	772.8	774.8	776.7	778.5	780.4	782.2	785.2
35°	729.7	732.5	735.4	738.2	741.0	743.6	746.0	748.4	750.7	753.1	756.4
37.5°	695.4	698.7	702.0	705.2	708.5	711.6	714.5	717.4	720.4	723.3	726.7
40°	673.3	676.4	679.4	682.5	685.6	688.8	692.1	695.4	698.7	702.0	705.6
42.5°	647.8	651.2	654.7	658.1	661.6	665.2	669.1	673.0	676.9	680.7	684.7
45°	608.4	612.9	617.4	621.9	626.4	630.9	635.4	639.9	644.3	648.8	652.9
47.5°	570.8	575.4	580.0	584.7	589.3	594.2	599.4	604.6	609.8	615.0	619.2
50°	543.5	548.7	553.9	559.1	564.3	569.5	574.7	579.9	585.1	590.3	595.1
52.5°	516.3	521.5	526.7	531.9	537.1	542.7	548.6	554.6	560.6	566.5	571.2
55°	476.5	481.5	486.5	491.4	496.4	502.4	509.5	516.6	523.7	530.8	535.5
57.5°	432.1	438.2	444.4	450.5	456.6	463.2	470.3	477.3	484.4	491.4	497.0
60°	403.1	409.3	415.4	421.6	427.7	434.7	442.5	450.3	458.1	465.9	471.3
62.5°	375.0	381.8	388.5	395.2	401.9	409.2	417.0	424.8	432.6	440.4	445.8
65°	329.7	337.3	344.9	352.4	360.0	367.8	375.8	383.9	391.9	399.9	405.8
67.5°	286.1	294.2	302.2	310.2	318.3	326.6	335.2	343.8	352.4	361.0	367.0
70°	256.3	264.4	272.4	280.5	288.5	297.0	306.0	315.0	323.9	332.9	339.3
72.5°	227.4	235.6	243.9	252.1	260.3	269.2	278.8	288.3	297.9	307.4	313.6
75°	183.0	191.7	200.4	209.2	217.9	227.3	237.2	247.1	257.1	267.0	273.6
77.5°	141.5	150.7	160.0	169.3	178.5	188.4	198.8	209.2	219.6	230.0	236.7
80°	115.9	125.4	134.8	144.3	153.8	163.7	174.1	184.5	194.9	205.3	212.4
82.5°	90.4	100.2	110.1	119.9	129.7	139.9	150.3	160.7	171.1	181.5	188.7
85°	56.4	66.3	76.2	86.2	96.1	106.4	117.0	127.6	138.3	148.9	156.0
87.5°	31.7	41.7	52.0	61.8	71.7	81.7	93.2	103.6	114.3	125.1	131.7
90°	18.0	29.5	41.9	52.4	62.8	72.6	88.8	99.0	111.1	123.3	129.1
92.5°	27.5	41.2	59.1	79.8	102.9	133.0	193.9	281.5	367.2	416.9	370.6
95°	46.8	57.6	75.4	96.1	127.9	178.6	275.1	448.5	696.8	906.2	935.5
97.5°	71.7	78.4	93.7	112.4	139.6	182.9	259.4	404.2	651.0	942.9	1143.2
100°	87.6	93.7	106.9	125.0	150.1	189.7	257.8	379.9	592.7	883.5	1145.4
102.5°	103.5	110.5	122.1	138.7	162.2	199.8	262.1	370.4	552.7	811.3	1081.1
105°	126.4	134.1	143.8	160.5	183.2	218.9	275.6	367.2	515.7	725.1	965.6
107.5°	153.7	159.6	168.5	185.1	206.2	240.8	293.0	376.7	504.4	674.2	871.5
110°	171.2	176.5	184.8	200.1	221.4	254.2	306.4	384.5	502.6	655.6	823.8



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	188.0	192.9	201.6	215.7	236.6	269.0	319.2	393.0	503.5	644.2	794.6
115°	212.0	217.2	226.3	238.4	259.5	291.3	338.8	406.2	506.6	634.0	765.0
117.5°	238.2	242.2	249.7	262.0	281.0	313.1	358.1	420.3	510.6	626.6	747.9
120°	254.9	257.6	265.3	277.0	294.7	326.4	371.2	430.0	513.7	622.4	737.9
122.5°	270.9	273.0	280.1	290.5	309.2	339.6	384.0	439.2	517.0	617.3	727.3
125°	290.8	294.5	300.3	311.0	329.8	360.5	402.4	454.2	523.0	610.8	711.1
127.5°	309.1	312.1	319.0	331.4	350.9	381.2	420.5	467.2	526.6	602.2	690.3
130°	318.7	322.4	330.2	344.9	363.6	394.4	432.1	474.8	529.5	597.2	677.3
132.5°	329.0	332.0	342.1	356.1	376.4	405.2	442.1	483.3	532.4	593.0	665.7
135°	342.6	346.5	356.5	373.5	394.5	421.2	455.8	493.4	536.0	585.6	647.3
137.5°	357.1	360.7	371.4	387.4	408.9	433.9	465.5	499.8	537.0	580.5	631.7
140°	367.5	370.3	381.0	397.7	418.5	442.4	472.6	504.8	539.0	577.2	623.2
142.5°	377.8	380.8	390.9	407.0	427.2	450.2	479.2	508.6	540.9	575.5	616.3
145°	393.4	396.2	405.9	419.6	438.4	460.2	486.2	513.1	542.1	573.0	606.4
147.5°	411.2	411.9	420.5	434.6	450.2	469.8	494.2	517.7	543.1	569.4	597.8
150°	422.4	423.1	430.9	442.6	457.3	476.2	498.2	520.1	543.1	567.0	592.0
152.5°	431.9	432.0	440.0	451.1	464.4	481.8	501.4	521.7	541.5	563.0	585.6
155°	446.2	447.2	453.2	463.2	474.2	489.2	506.1	523.1	539.1	557.1	576.0
157.5°	460.4	460.4	466.0	473.8	483.4	495.2	509.5	523.1	536.5	550.9	566.2
160°	469.2	469.2	473.2	480.2	488.2	499.2	511.1	523.1	534.1	546.1	559.1
162.5°	477.2	476.4	479.6	485.8	493.0	501.6	512.7	523.1	531.7	541.3	552.7
165°	486.2	486.2	488.2	493.2	498.2	504.1	513.1	521.1	527.1	534.1	542.1
167.5°	495.2	494.2	495.2	499.0	501.8	506.3	512.9	518.7	522.3	526.9	532.5
170°	499.2	498.2	499.2	502.2	504.1	507.1	512.1	517.1	519.1	522.1	526.1
172.5°	503.1	502.2	502.3	504.5	505.7	507.9	511.3	515.5	515.9	517.3	520.5
175°	507.1	506.1	506.1	507.1	508.1	508.1	510.1	513.1	512.1	512.1	514.1
177.5°	508.9	508.1	507.3	508.1	508.1	508.1	508.9	510.5	508.9	508.9	509.7
180°	508.1	508.1	508.1	508.1	508.1	508.1	508.1	508.1	508.1	508.1	508.1



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**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
0°	949.9	949.9	949.9	949.9	949.9	949.9	949.9	949.9
2.5°	946.5	947.9	949.2	949.8	949.6	949.4	949.2	949.0
5°	944.1	946.0	947.8	948.7	948.4	948.2	948.0	947.7
7.5°	939.0	941.1	943.3	944.2	944.0	943.7	943.5	943.3
10°	933.9	936.0	938.2	939.1	938.9	938.6	938.4	938.2
12.5°	926.7	928.7	930.6	931.5	931.5	931.4	931.4	931.3
15°	913.7	915.8	917.9	918.9	918.7	918.4	918.2	917.9
17.5°	897.8	900.0	902.2	903.2	903.0	902.8	902.6	902.4
20°	885.4	887.8	890.2	891.4	891.4	891.4	891.4	891.4
22.5°	871.0	873.3	875.7	877.1	877.5	877.8	878.2	878.6
25°	848.7	851.3	853.9	855.3	855.5	855.8	856.0	856.3
27.5°	823.6	826.0	828.5	829.8	830.1	830.4	830.7	830.9
30°	806.1	808.7	811.3	812.9	813.4	813.8	814.3	814.8
32.5°	788.2	791.2	794.1	795.9	796.3	796.8	797.3	797.8
35°	759.7	763.0	766.3	768.3	769.0	769.7	770.5	771.2
37.5°	730.0	733.4	736.7	738.8	739.5	740.3	741.0	741.8
40°	709.1	712.7	716.2	718.4	719.4	720.3	721.3	722.2
42.5°	688.6	692.5	696.4	698.8	699.5	700.3	701.1	701.8
45°	656.9	660.9	664.9	667.5	668.7	669.9	671.1	672.2
47.5°	623.3	627.5	631.7	634.4	635.9	637.3	638.7	640.1
50°	599.8	604.5	609.2	612.3	613.7	615.2	616.6	618.0
52.5°	576.0	580.7	585.4	588.5	589.9	591.3	592.7	594.2
55°	540.2	545.0	549.7	552.8	554.2	555.6	557.0	558.4
57.5°	502.7	508.3	513.9	517.4	518.7	520.0	521.4	522.7
60°	476.8	482.2	487.6	491.3	493.2	495.1	497.0	498.9
62.5°	451.2	456.7	462.1	465.8	467.7	469.6	471.4	473.3
65°	411.8	417.7	423.6	427.5	429.4	431.3	433.1	435.0
67.5°	373.0	379.0	385.0	388.9	390.8	392.6	394.5	396.3
70°	345.7	352.1	358.5	362.5	364.1	365.8	367.4	369.1
72.5°	319.8	326.0	332.2	336.2	338.0	339.9	341.7	343.6
75°	280.2	286.8	293.5	297.8	300.0	302.1	304.2	306.3
77.5°	243.4	250.1	256.8	261.3	263.6	265.8	268.1	270.4
80°	219.5	226.6	233.7	238.1	240.0	241.9	243.8	245.7
82.5°	196.0	203.3	210.6	215.3	217.3	219.4	221.5	223.6
85°	163.1	170.2	177.3	182.0	184.4	186.7	189.1	191.5
87.5°	138.8	145.8	152.9	157.4	159.6	161.9	163.8	165.9
90°	137.0	144.8	152.7	157.1	160.0	162.8	163.7	165.6
92.5°	309.6	267.7	244.3	228.6	218.7	215.2	213.7	215.6
95°	845.1	696.7	569.3	476.7	429.9	401.1	385.3	374.4
97.5°	1191.3	1140.0	1048.5	948.4	878.8	820.7	792.8	774.1
100°	1297.6	1323.9	1281.4	1211.5	1126.3	1067.1	1038.8	1032.5
102.5°	1287.3	1392.6	1412.9	1386.2	1334.7	1292.5	1262.8	1258.2
105°	1200.1	1378.7	1483.5	1528.3	1532.2	1526.1	1514.0	1509.9
107.5°	1079.8	1269.5	1414.4	1507.3	1558.3	1582.7	1594.4	1598.7
110°	1006.9	1185.1	1335.3	1448.7	1521.5	1565.3	1585.2	1596.1





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CATALOG NUMBER: S124DIP-S795D1035U835-4F0-1E-UDD-D4

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	952.0	1110.0	1252.0	1365.4	1447.7	1500.3	1527.4	1543.8
115°	895.0	1023.0	1145.0	1244.2	1324.8	1386.3	1419.9	1429.6
117.5°	863.3	969.8	1066.6	1151.2	1220.4	1272.6	1306.9	1314.9
120°	847.5	945.0	1029.6	1103.8	1162.6	1208.4	1236.3	1249.1
122.5°	833.6	928.0	1005.4	1070.7	1120.5	1159.8	1183.4	1196.1
125°	811.5	901.8	975.2	1033.0	1074.4	1104.8	1125.1	1132.6
127.5°	784.6	871.0	943.9	998.9	1040.7	1068.0	1085.6	1093.2
130°	764.4	847.5	919.7	975.4	1017.8	1044.1	1061.5	1068.9
132.5°	743.9	822.0	892.3	948.0	989.6	1019.1	1035.7	1043.1
135°	714.0	782.6	847.3	899.8	941.2	970.5	987.9	995.3
137.5°	687.4	745.8	800.6	848.0	886.5	915.3	929.6	938.0
140°	672.1	722.1	770.1	814.2	850.3	873.5	888.6	897.8
142.5°	658.5	702.5	743.8	781.9	813.9	835.2	848.6	855.2
145°	639.8	675.1	706.5	735.6	761.5	779.4	790.4	796.3
147.5°	624.3	651.5	675.6	698.0	717.2	732.5	740.9	743.4
150°	616.0	638.9	658.9	676.9	692.8	705.8	711.8	712.8
152.5°	607.2	626.9	645.3	660.1	673.7	684.2	687.8	688.8
155°	594.0	610.0	624.9	636.9	646.9	654.9	657.9	657.9
157.5°	579.8	593.2	605.8	615.4	622.9	628.9	630.7	630.7
160°	571.0	582.0	593.0	601.0	607.0	613.0	614.0	614.0
162.5°	562.2	571.6	580.2	587.4	591.8	597.8	598.8	598.0
165°	550.1	556.1	563.0	568.0	572.0	576.0	575.0	574.0
167.5°	538.3	542.9	548.5	551.5	553.5	556.1	555.9	555.1
170°	531.1	534.1	538.1	541.1	543.1	544.1	543.1	543.1
172.5°	524.7	526.9	529.3	531.5	532.7	533.7	532.7	531.1
175°	516.1	517.1	519.1	519.1	519.1	521.1	519.1	517.1
177.5°	510.5	511.3	511.3	512.1	511.3	512.1	510.5	508.9
180°	508.1	508.1	508.1	508.1	508.1	508.1	508.1	508.1

(END OF REPORT)