

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: P332583

Luminaire Tested: **S124DIP-S795D365U835-4F0-1E-UDD-D**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P332583  
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-S795D365U835-4F0-1E-UDD-D  
Description: DEFINE 4 DIRECT-INDIRECT PENDANT LED LUMINAIRE  
DOWNLIGHT 795 LUMENS PER FOOT, DROP SATIN WHITE DIFFUSER  
UPLIGHT 365 LUMENS PER FOOT, NO LENS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4701.0 lumens  
Efficiency: N/A  
Efficacy: 134.3 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-Direct

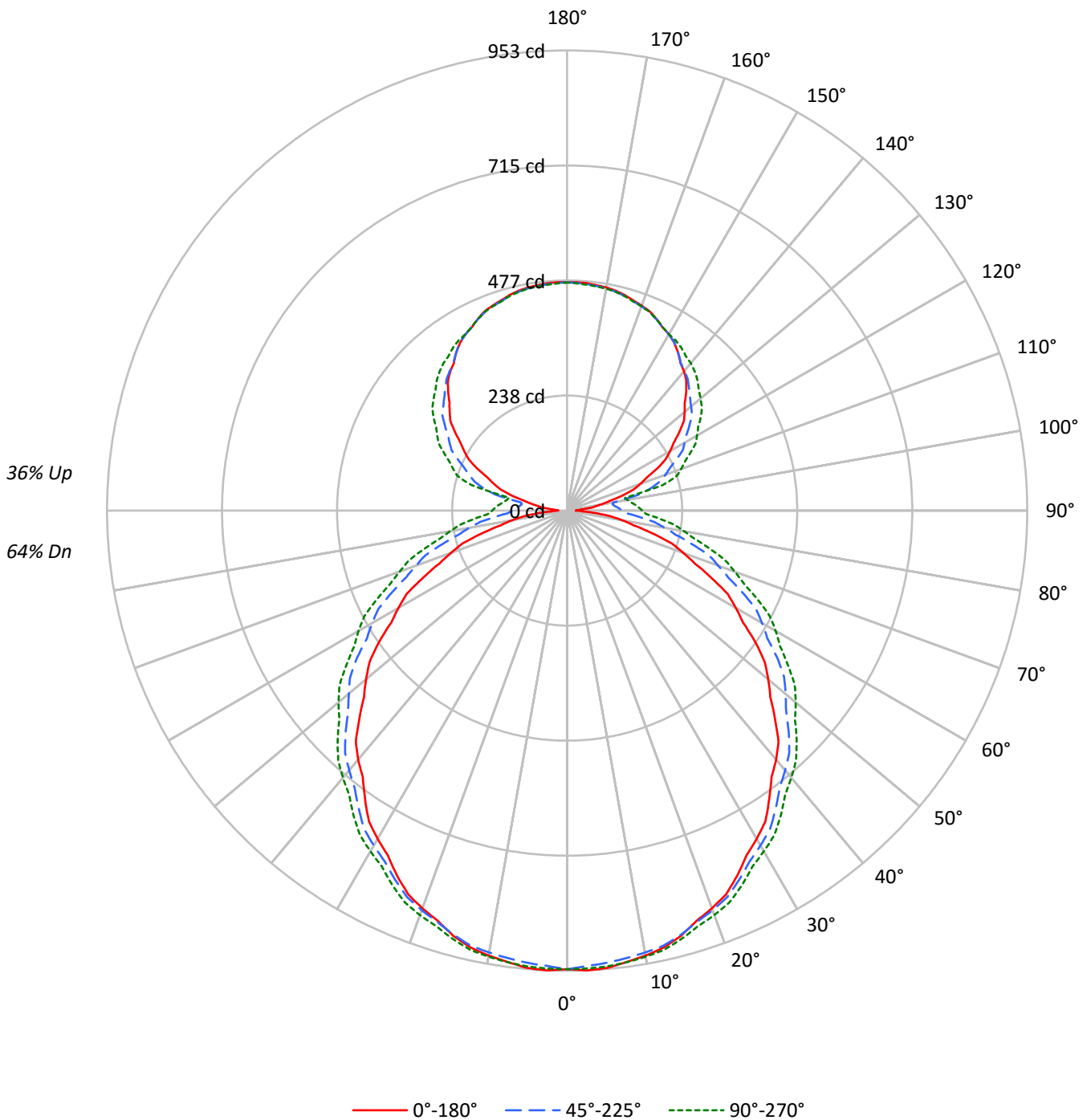
Input Watts (W): 35  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	110	110	110	110	104	104	104	104	91	91	91	79	79	79	69	69	69	64
1	100	95	90	86	93	89	85	81	78	75	72	68	66	64	59	57	55	51
2	90	82	75	69	84	77	71	66	68	63	59	59	55	52	51	48	46	42
3	82	72	64	57	76	67	60	54	59	53	49	52	47	43	45	41	38	35
4	75	63	55	48	70	59	52	46	52	46	41	46	41	37	40	36	33	29
5	69	56	47	41	64	53	45	39	47	40	35	41	36	32	36	31	28	25
6	63	50	42	35	59	47	40	34	42	36	31	37	32	28	32	28	25	22
7	58	45	37	31	54	43	35	30	38	32	27	34	28	24	29	25	22	19
8	54	41	33	27	51	39	31	26	35	28	24	31	25	22	27	23	19	17
9	50	38	30	24	47	36	28	23	32	26	21	28	23	19	25	21	18	15
10	47	34	27	22	44	33	26	21	29	23	19	26	21	18	23	19	16	14

**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	1.9
10°-20°	257.7	5.5
20°-30°	389.7	8.3
30°-40°	471.5	10.0
40°-50°	498.5	10.6
50°-60°	469.1	10.0
60°-70°	389.2	8.3
70°-80°	273.4	5.8
80°-90°	155.9	3.3
90°-100°	107.9	2.3
100°-110°	171.0	3.6
110°-120°	242.7	5.2
120°-130°	276.0	5.9
130°-140°	278.8	5.9
140°-150°	252.6	5.4
150°-160°	201.9	4.3
160°-170°	130.2	2.8
170°-180°	44.9	1.0
0°-30°	737.4	15.7
0°-40°	1208.8	25.7
0°-60°	2176.4	46.3
0°-90°	2994.9	63.7
90°-120°	521.6	11.1
90°-150°	1329.0	28.3
90°-180°	1706.0	36.3
0°-180°	4701.0	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	65	113	145	155	12
95°	33	58	100	130	141	36
105°	116	140	180	208	206	122
115°	205	217	249	272	281	202
125°	284	285	310	330	338	253
135°	348	349	357	374	382	269
145°	400	400	400	407	412	250
155°	438	438	437	438	438	202
165°	462	460	460	463	460	130
175°	472	470	471	474	470	45
180°	472	472	472	472	472	



TEST NUMBER: P332583

CATALOG NUMBER: S124DIP-S795D365U835-4F0-1E-UDD-D

**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	41.5	51.3	61.1	71.0	81.1	91.6	102.1	112.5	123.0	130.0
90°	18.1	28.4	38.7	49.0	59.4	69.9	80.7	91.5	102.3	113.1	120.4
92.5°	20.6	29.2	37.7	46.3	54.8	64.5	75.3	86.1	96.9	107.7	114.8
95°	33.3	38.4	43.5	48.7	53.8	61.2	71.0	80.8	90.5	100.3	107.2
97.5°	53.8	62.2	70.6	79.0	87.3	91.9	92.8	93.6	94.4	95.3	101.5
100°	69.7	77.2	84.8	92.3	99.9	102.9	101.2	99.6	98.0	96.4	101.4
102.5°	88.3	94.7	101.2	107.6	114.0	121.0	128.7	136.3	143.9	151.5	143.3
105°	116.0	121.1	126.3	131.5	136.7	143.9	153.1	162.2	171.3	180.5	187.1
107.5°	143.4	147.5	151.6	155.7	159.8	166.3	175.1	183.9	192.7	201.5	207.7
110°	161.2	164.7	168.3	171.8	175.4	181.5	190.3	199.0	207.7	216.5	222.1



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	178.4	181.8	185.1	188.5	191.8	197.6	205.7	213.8	221.9	230.0	235.3
115°	205.0	207.4	209.7	212.1	214.5	219.4	226.9	234.3	241.8	249.3	254.7
117.5°	229.9	231.5	233.1	234.7	236.2	240.6	247.9	255.1	262.3	269.5	274.4
120°	246.0	247.0	248.0	249.1	250.1	254.0	260.8	267.5	274.3	281.1	286.0
122.5°	261.8	262.2	262.5	262.8	263.1	266.6	273.2	279.8	286.4	293.0	297.8
125°	283.5	283.5	283.6	283.7	283.8	286.7	292.4	298.2	303.9	309.7	314.4
127.5°	304.7	304.6	304.4	304.3	304.1	306.5	311.4	316.3	321.2	326.1	330.3
130°	317.7	317.6	317.4	317.3	317.1	319.0	323.0	327.1	331.1	335.1	339.4
132.5°	330.5	330.4	330.3	330.2	330.1	331.7	335.0	338.3	341.7	345.0	349.1
135°	348.5	348.4	348.3	348.2	348.2	349.1	351.1	353.0	355.0	357.0	360.9
137.5°	365.4	365.2	365.0	364.8	364.5	365.0	366.2	367.3	368.5	369.6	373.2
140°	376.4	376.3	376.2	376.2	376.1	376.2	376.6	377.0	377.4	377.8	381.1
142.5°	385.4	385.7	385.9	386.1	386.4	386.5	386.4	386.4	386.3	386.3	389.1
145°	400.4	400.4	400.4	400.4	400.4	400.4	400.4	400.4	400.4	400.4	401.9
147.5°	412.5	412.7	412.9	413.1	413.3	413.4	413.3	413.2	413.1	413.1	413.3
150°	421.3	421.3	421.4	421.5	421.6	421.6	421.5	421.4	421.3	421.3	421.3
152.5°	427.8	428.0	428.2	428.4	428.6	428.6	428.5	428.3	428.2	428.1	428.2
155°	437.9	438.0	438.0	438.1	438.2	438.1	437.9	437.6	437.4	437.2	437.5
157.5°	446.6	446.5	446.5	446.4	446.4	446.2	446.0	445.7	445.4	445.2	445.6
160°	451.7	451.4	451.2	451.0	450.7	450.6	450.5	450.4	450.3	450.2	450.7
162.5°	456.2	455.9	455.6	455.3	455.0	454.8	454.7	454.6	454.6	454.5	455.0
165°	461.9	461.5	461.1	460.7	460.3	460.1	460.1	460.1	460.1	460.1	460.8
167.5°	466.4	466.0	465.6	465.2	464.8	464.6	464.5	464.5	464.4	464.4	465.1
170°	469.0	468.5	468.0	467.6	467.1	466.9	467.0	467.1	467.1	467.2	467.8
172.5°	470.7	470.2	469.7	469.3	468.8	468.6	468.7	468.8	468.8	468.9	469.5
175°	472.5	472.0	471.6	471.1	470.6	470.4	470.5	470.6	470.7	470.7	471.5
177.5°	473.4	472.9	472.5	472.0	471.6	471.4	471.6	471.7	471.8	471.9	472.5
180°	472.5	472.5	472.5	472.5	472.5	472.5	472.5	472.5	472.5	472.5	472.5



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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°	136.9	143.9	150.8	155.4	157.5	159.6	161.7	163.8
90°	127.7	135.1	142.4	147.1	149.1	151.2	153.2	155.3
92.5°	122.0	129.1	136.2	140.8	142.7	144.6	146.5	148.5
95°	114.0	120.9	127.7	132.3	134.5	136.7	138.9	141.1
97.5°	107.8	114.0	120.2	124.4	126.5	128.6	130.7	132.9
100°	106.5	111.5	116.6	120.0	121.7	123.4	125.2	126.9
102.5°	135.1	126.9	118.7	115.5	117.3	119.2	121.1	122.9
105°	193.7	200.3	206.9	209.8	208.8	207.9	207.0	206.0
107.5°	213.8	220.0	226.2	230.2	232.2	234.2	236.2	238.2
110°	227.7	233.3	238.9	242.7	244.8	247.0	249.1	251.2





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CATALOG NUMBER: S124DIP-S795D365U835-4F0-1E-UDD-D

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	240.5	245.7	250.9	254.6	256.8	259.0	261.2	263.4
115°	260.0	265.4	270.7	274.3	275.9	277.6	279.2	280.9
117.5°	279.3	284.2	289.1	292.4	294.3	296.1	298.0	299.9
120°	290.9	295.7	300.6	303.9	305.7	307.4	309.1	310.9
122.5°	302.6	307.4	312.2	315.4	317.0	318.5	320.1	321.6
125°	319.1	323.9	328.6	331.7	333.2	334.7	336.2	337.7
127.5°	334.5	338.7	342.9	345.8	347.3	348.9	350.4	351.9
130°	343.8	348.1	352.4	355.3	356.7	358.1	359.6	361.0
132.5°	353.3	357.4	361.6	364.3	365.7	367.0	368.4	369.7
135°	364.9	368.8	372.7	375.5	377.1	378.6	380.2	381.8
137.5°	376.9	380.5	384.1	386.5	387.6	388.8	389.9	391.0
140°	384.4	387.7	391.0	393.3	394.6	395.8	397.1	398.4
142.5°	392.0	394.9	397.8	399.7	400.7	401.7	402.7	403.7
145°	403.4	404.9	406.4	407.7	408.8	409.9	411.0	412.1
147.5°	413.6	413.8	414.1	414.6	415.5	416.3	417.1	418.0
150°	421.3	421.3	421.3	421.3	421.4	421.5	421.5	421.6
152.5°	428.3	428.4	428.6	428.6	428.5	428.5	428.5	428.4
155°	437.8	438.1	438.4	438.5	438.2	438.0	437.8	437.5
157.5°	446.0	446.4	446.8	446.8	446.4	446.0	445.6	445.2
160°	451.2	451.7	452.1	452.1	451.7	451.2	450.7	450.2
162.5°	455.4	455.9	456.4	456.3	455.8	455.3	454.7	454.2
165°	461.4	462.0	462.7	462.6	461.9	461.2	460.5	459.8
167.5°	465.8	466.5	467.1	467.1	466.3	465.5	464.7	464.0
170°	468.5	469.1	469.7	469.6	468.9	468.1	467.3	466.5
172.5°	470.2	470.8	471.4	471.3	470.5	469.6	468.8	467.9
175°	472.2	472.9	473.6	473.5	472.5	471.6	470.6	469.7
177.5°	473.0	473.5	474.0	473.8	473.1	472.3	471.6	470.8
180°	472.5	472.5	472.5	472.5	472.5	472.5	472.5	472.5

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