

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: P332584-935

Luminaire Tested: **S124DIP-S795D365U935-4F0-1E-UDD-D1**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P332584-935  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-10,  
Test Lab: INNOVATION CENTER  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: NEO-RAY  
Catalog Number: S124DIP-S795D365U935-4F0-1E-UDD-D1  
Description: DEFINE 4 DIRECT-INDIRECT PENDANT LED LUMINAIRE  
DOWNLIGHT 795 LUMENS PER FOOT, DROP SATIN WHITE DIFFUSER  
UPLIGHT 365 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3880.5 lumens  
Efficiency: N/A  
Efficacy: 110.9 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-Direct

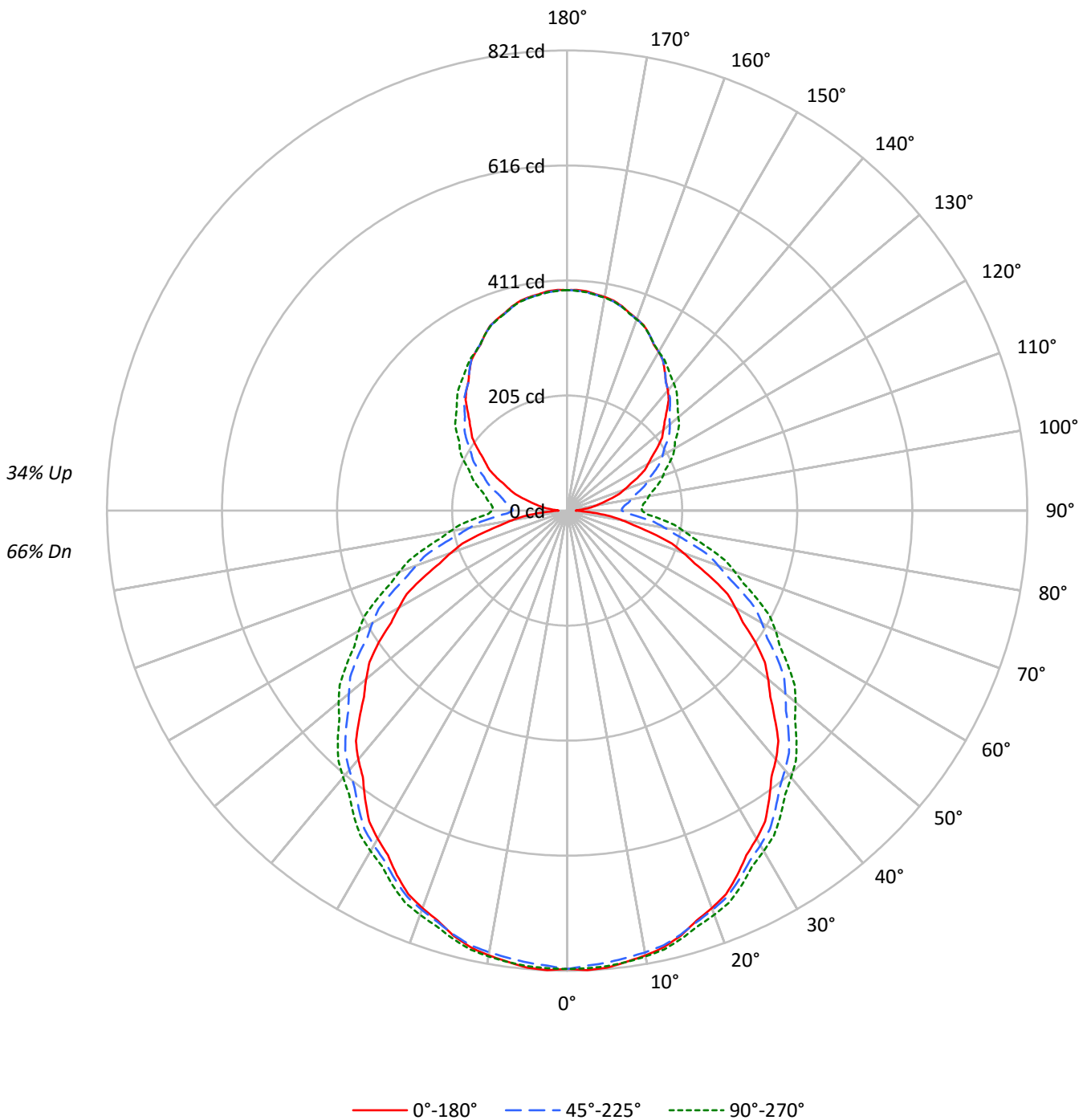
Input Watts (W): 35  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



TEST NUMBER: P332584-935

CATALOG NUMBER: S124DIP-S795D365U935-4F0-1E-UDD-D1

### Luminous Intensity Polar Plot





TEST NUMBER: P332584-935

CATALOG NUMBER: S124DIP-S795D365U935-4F0-1E-UDD-D1

**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	111	111	111	111	105	105	105	105	92	92	92	81	81	81	71	71	71	66
1	100	95	91	87	94	90	86	82	79	76	73	70	67	65	61	59	58	53
2	91	82	75	70	85	78	71	66	69	64	60	60	57	53	53	50	47	43
3	82	72	64	57	77	68	61	55	60	54	50	53	48	45	46	43	40	36
4	75	63	55	48	70	60	52	46	53	47	42	47	42	38	41	37	34	31
5	69	56	48	41	64	53	45	39	47	41	36	42	37	33	37	33	29	26
6	63	51	42	36	59	48	40	34	43	36	31	38	32	28	33	29	26	23
7	59	46	37	31	55	43	35	30	39	32	27	34	29	25	30	26	23	20
8	54	41	33	28	51	39	32	26	35	29	24	31	26	22	28	23	20	18
9	51	38	30	25	48	36	29	24	32	26	22	29	24	20	26	21	18	16
10	47	35	27	22	45	33	26	21	30	24	20	27	22	18	24	20	16	15

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

	0°	45°	90°
0°	6603	6603	6603
5°	6622	6453	6471
10°	6582	6347	6342
15°	6524	6225	6190
20°	6435	6090	6044
25°	6334	5939	5882
30°	6226	5788	5714
35°	6103	5635	5569
40°	6004	5488	5417
45°	5858	5352	5286
50°	5735	5197	5149
55°	5608	5051	4987
60°	5409	4863	4840
65°	5191	4662	4657
70°	4927	4433	4447
75°	4561	4182	4255
80°	4149	3940	4067
85°	3636	3724	3960



TEST NUMBER: P332584-935

CATALOG NUMBER: S124DIP-S795D365U935-4F0-1E-UDD-D1

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	77.4	2.0
10°-20°	221.9	5.7
20°-30°	335.5	8.6
30°-40°	405.9	10.5
40°-50°	429.2	11.1
50°-60°	403.9	10.4
60°-70°	335.1	8.6
70°-80°	235.4	6.1
80°-90°	134.3	3.5
90°-100°	105.0	2.7
100°-110°	135.4	3.5
110°-120°	169.7	4.4
120°-130°	194.2	5.0
130°-140°	202.8	5.2
140°-150°	191.8	4.9
150°-160°	159.7	4.1
160°-170°	106.2	2.7
170°-180°	37.2	1.0
0°-30°	634.9	16.4
0°-40°	1040.8	26.8
0°-60°	1873.9	48.3
0°-90°	2578.6	66.5
90°-120°	410.0	10.6
90°-150°	998.7	25.7
90°-180°	1302.0	33.6
0°-180°	3880.5	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	818	818	818	818	818	
5°	819	816	810	816	816	78
15°	785	786	783	791	790	221
25°	718	723	726	736	737	331
35°	628	639	648	661	664	393
45°	524	541	559	574	579	405
55°	410	430	457	475	481	365
65°	284	313	344	366	374	281
75°	158	192	230	255	264	168
85°	49	87	128	155	165	52
90°	16	56	97	125	134	11
95°	30	64	103	127	137	30
105°	79	99	133	156	165	85
115°	138	148	175	194	201	137
125°	197	197	218	235	240	176
135°	251	253	259	273	278	194
145°	304	304	304	309	312	190
155°	347	347	347	348	347	160
165°	378	377	376	378	377	106
175°	393	391	391	393	391	37
180°	393	393	393	393	393	



TEST NUMBER: P332584-935

CATALOG NUMBER: S124DIP-S795D365U935-4F0-1E-UDD-D1

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	817.9	817.9	817.9	817.9	817.9	817.9	817.9	817.9	817.9	817.9	817.9
2.5°	820.8	820.3	819.8	819.3	818.8	817.9	816.6	815.3	814.0	812.7	813.8
5°	818.7	818.1	817.5	816.9	816.3	815.3	813.8	812.4	811.0	809.6	811.2
7.5°	811.8	811.4	811.1	810.7	810.3	809.5	808.4	807.2	806.0	804.9	806.7
10°	805.9	805.7	805.6	805.3	805.1	804.5	803.5	802.5	801.4	800.4	802.3
12.5°	797.9	797.8	797.8	797.7	797.7	797.4	796.7	795.9	795.2	794.5	796.3
15°	784.9	785.1	785.2	785.5	785.7	785.5	784.9	784.3	783.6	783.0	784.9
17.5°	767.1	767.7	768.3	769.0	769.6	769.7	769.6	769.6	769.4	769.3	771.2
20°	754.7	755.3	755.9	756.5	757.1	757.5	757.7	757.9	758.1	758.3	760.3
22.5°	740.7	741.5	742.3	743.0	743.8	744.4	744.8	745.1	745.5	745.9	747.9
25°	718.0	719.2	720.5	721.7	722.9	723.8	724.4	725.0	725.7	726.3	728.5
27.5°	692.8	694.5	696.3	698.1	699.9	701.3	702.2	703.1	704.0	705.0	707.1
30°	675.9	677.5	679.2	680.8	682.4	683.9	685.4	686.7	688.2	689.6	691.8
32.5°	657.5	659.5	661.5	663.4	665.4	667.1	668.7	670.3	671.9	673.5	676.1
35°	628.3	630.7	633.2	635.6	638.0	640.2	642.3	644.4	646.4	648.4	651.3
37.5°	598.7	601.6	604.4	607.2	610.0	612.7	615.2	617.7	620.3	622.8	625.7
40°	579.7	582.4	585.0	587.6	590.3	593.1	595.9	598.7	601.6	604.4	607.5
42.5°	557.8	560.7	563.7	566.6	569.6	572.7	576.1	579.5	582.8	586.1	589.5
45°	523.8	527.7	531.6	535.5	539.3	543.2	547.1	551.0	554.7	558.6	562.1
47.5°	491.5	495.4	499.4	503.4	507.4	511.6	516.1	520.6	525.0	529.5	533.1
50°	468.0	472.4	476.9	481.4	485.9	490.3	494.8	499.3	503.8	508.2	512.4
52.5°	444.5	449.0	453.5	458.0	462.4	467.3	472.3	477.5	482.7	487.8	491.8
55°	410.3	414.6	418.9	423.1	427.4	432.6	438.7	444.8	450.9	457.0	461.1
57.5°	372.0	377.3	382.6	387.9	393.1	398.8	404.9	411.0	417.1	423.1	427.9
60°	347.1	352.4	357.7	363.0	368.2	374.3	381.0	387.7	394.4	401.1	405.8
62.5°	322.9	328.7	334.5	340.3	346.0	352.3	359.0	365.8	372.5	379.2	383.8
65°	283.9	290.4	297.0	303.4	310.0	316.7	323.6	330.5	337.4	344.3	349.4
67.5°	246.3	253.3	260.2	267.1	274.1	281.2	288.6	296.0	303.4	310.8	316.0
70°	220.7	227.6	234.5	241.5	248.4	255.7	263.5	271.2	278.9	286.6	292.1
72.5°	195.8	202.9	210.0	217.1	224.1	231.8	240.0	248.2	256.5	264.7	270.0
75°	157.6	165.1	172.5	180.1	187.6	195.7	204.2	212.8	221.4	229.9	235.6
77.5°	121.8	129.8	137.8	145.8	153.7	162.2	171.2	180.1	189.1	198.0	203.8
80°	99.8	108.0	116.1	124.2	132.4	140.9	149.9	158.9	167.8	176.8	182.9
82.5°	77.8	86.3	94.8	103.2	111.7	120.5	129.4	138.4	147.3	156.3	162.5
85°	48.6	57.1	65.6	74.2	82.7	91.6	100.7	109.9	119.1	128.2	134.3
87.5°	27.3	35.7	44.2	52.6	61.1	69.8	78.9	87.9	96.9	105.9	111.9
90°	15.6	24.5	33.3	42.2	51.1	60.2	69.5	78.8	88.1	97.4	103.7
92.5°	20.4	28.6	36.8	44.9	53.1	61.8	70.9	80.1	89.2	98.3	104.3
95°	30.1	37.5	44.8	52.2	59.5	67.5	76.4	85.2	94.0	102.8	108.5
97.5°	42.7	49.0	55.2	61.5	67.8	75.3	84.1	92.9	101.8	110.6	116.1
100°	52.7	58.2	63.8	69.4	74.9	82.0	90.5	99.1	107.6	116.1	121.7
102.5°	63.9	68.6	73.4	78.1	82.8	89.4	97.7	106.1	114.3	122.7	128.2
105°	79.1	83.3	87.4	91.5	95.7	101.7	109.4	117.3	125.0	132.9	138.1
107.5°	96.9	100.3	103.8	107.2	110.6	115.9	123.0	130.2	137.3	144.6	149.7
110°	108.3	111.3	114.3	117.3	120.3	125.3	132.3	139.4	146.5	153.5	158.1



TEST NUMBER: P332584-935

CATALOG NUMBER: S124DIP-S795D365U935-4F0-1E-UDD-D1

**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	120.3	122.8	125.4	127.9	130.4	135.1	141.7	148.4	155.1	161.8	166.3
115°	138.1	140.0	141.8	143.6	145.5	149.6	155.9	162.3	168.7	175.1	179.5
117.5°	155.8	157.0	158.2	159.3	160.5	164.0	170.0	176.0	181.9	187.9	191.9
120°	167.0	167.9	168.8	169.7	170.6	173.8	179.5	185.3	191.0	196.7	200.4
122.5°	179.4	179.7	179.9	180.1	180.4	183.2	188.7	194.2	199.7	205.2	209.0
125°	196.8	196.7	196.5	196.2	196.0	198.5	203.5	208.5	213.5	218.5	222.3
127.5°	213.3	213.3	213.3	213.3	213.3	215.2	219.0	222.8	226.6	230.4	233.9
130°	224.2	224.2	224.2	224.2	224.2	225.8	229.1	232.4	235.7	238.9	242.5
132.5°	236.2	236.1	236.1	236.0	235.9	237.2	239.8	242.3	244.9	247.4	250.7
135°	251.0	251.4	251.8	252.2	252.6	253.6	254.9	256.4	257.8	259.2	262.3
137.5°	268.2	268.1	268.1	268.1	268.1	268.5	269.3	270.1	270.9	271.7	274.5
140°	279.7	279.6	279.5	279.4	279.3	279.4	279.6	279.8	280.0	280.3	282.8
142.5°	289.4	289.5	289.6	289.6	289.7	289.6	289.5	289.3	289.1	289.0	291.3
145°	303.7	303.7	303.8	303.8	303.9	304.0	304.0	304.1	304.2	304.3	305.4
147.5°	318.0	318.1	318.2	318.4	318.5	318.5	318.5	318.4	318.4	318.3	318.4
150°	326.7	326.8	326.9	327.0	327.0	327.1	327.1	327.1	327.1	327.1	327.1
152.5°	334.3	334.4	334.6	334.7	334.8	334.8	334.9	335.0	335.0	335.1	335.3
155°	346.8	346.8	346.8	346.8	346.8	346.8	346.7	346.6	346.6	346.6	346.8
157.5°	357.6	357.4	357.3	357.2	357.1	357.0	357.0	357.0	357.0	357.0	357.1
160°	363.9	363.8	363.8	363.7	363.6	363.5	363.5	363.4	363.3	363.3	363.5
162.5°	369.7	369.5	369.4	369.2	369.0	368.9	368.9	368.8	368.7	368.6	369.0
165°	377.5	377.4	377.2	376.9	376.8	376.6	376.4	376.3	376.2	376.1	376.4
167.5°	383.6	383.3	383.1	382.7	382.5	382.3	382.4	382.4	382.4	382.4	382.8
170°	387.0	386.7	386.3	386.0	385.6	385.6	385.6	385.6	385.7	385.8	386.2
172.5°	389.4	389.2	388.8	388.6	388.3	388.1	388.1	388.2	388.2	388.2	388.7
175°	392.8	392.4	392.1	391.8	391.4	391.2	391.2	391.1	391.1	391.0	391.4
177.5°	393.9	393.6	393.3	393.0	392.8	392.7	392.7	392.7	392.7	392.7	393.0
180°	393.4	393.4	393.4	393.4	393.4	393.4	393.4	393.4	393.4	393.4	393.4



TEST NUMBER: P332584-935

CATALOG NUMBER: S124DIP-S795D365U935-4F0-1E-UDD-D1

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
0°	817.9	817.9	817.9	817.9	817.9	817.9	817.9	817.9
2.5°	814.9	816.1	817.3	817.8	817.6	817.4	817.3	817.1
5°	812.9	814.5	816.1	816.8	816.6	816.4	816.2	816.0
7.5°	808.5	810.3	812.2	813.0	812.8	812.5	812.4	812.2
10°	804.1	805.9	807.8	808.6	808.4	808.1	808.0	807.8
12.5°	797.9	799.6	801.2	802.0	802.0	801.9	801.9	801.8
15°	786.7	788.5	790.3	791.2	791.0	790.7	790.6	790.3
17.5°	773.0	774.9	776.8	777.7	777.5	777.3	777.1	777.0
20°	762.3	764.4	766.5	767.5	767.5	767.5	767.5	767.5
22.5°	749.9	751.9	754.0	755.2	755.5	755.8	756.1	756.5
25°	730.7	733.0	735.2	736.4	736.6	736.8	737.0	737.3
27.5°	709.1	711.2	713.3	714.5	714.7	715.0	715.2	715.4
30°	694.1	696.3	698.5	699.9	700.3	700.7	701.1	701.5
32.5°	678.6	681.2	683.7	685.3	685.6	686.0	686.5	686.9
35°	654.1	656.9	659.8	661.5	662.1	662.7	663.4	664.0
37.5°	628.5	631.5	634.3	636.1	636.7	637.4	638.0	638.7
40°	610.5	613.6	616.6	618.5	619.4	620.2	621.0	621.8
42.5°	592.9	596.2	599.6	601.7	602.3	603.0	603.6	604.2
45°	565.6	569.0	572.5	574.7	575.8	576.8	577.8	578.8
47.5°	536.7	540.3	543.9	546.2	547.5	548.7	549.9	551.1
50°	516.4	520.5	524.5	527.2	528.4	529.7	530.9	532.1
52.5°	495.9	500.0	504.0	506.7	507.9	509.1	510.3	511.6
55°	465.1	469.2	473.3	476.0	477.2	478.4	479.6	480.8
57.5°	432.8	437.6	442.5	445.5	446.6	447.7	448.9	450.0
60°	410.5	415.2	419.8	423.0	424.6	426.3	427.9	429.6
62.5°	388.5	393.2	397.9	401.1	402.7	404.3	405.9	407.5
65°	354.6	359.6	364.7	368.1	369.7	371.3	372.9	374.5
67.5°	321.2	326.3	331.5	334.8	336.5	338.0	339.7	341.2
70°	297.6	303.2	308.7	312.1	313.5	315.0	316.3	317.8
72.5°	275.3	280.7	286.0	289.5	291.0	292.7	294.2	295.8
75°	241.3	246.9	252.7	256.4	258.3	260.1	261.9	263.7
77.5°	209.6	215.3	221.1	225.0	227.0	228.9	230.8	232.8
80°	189.0	195.1	201.2	205.0	206.6	208.3	209.9	211.5
82.5°	168.8	175.0	181.3	185.4	187.1	188.9	190.7	192.5
85°	140.4	146.5	152.7	156.7	158.8	160.7	162.8	164.9
87.5°	117.9	123.9	129.8	133.8	135.6	137.4	139.2	141.0
90°	109.9	116.3	122.6	126.7	128.4	130.2	131.9	133.7
92.5°	110.3	116.2	122.3	126.1	127.8	129.5	131.2	132.9
95°	114.2	119.9	125.6	129.3	131.2	133.0	134.8	136.6
97.5°	121.7	127.3	132.9	136.6	138.3	140.0	141.8	143.5
100°	127.4	133.0	138.7	142.2	143.6	145.1	146.5	147.9
102.5°	133.7	139.3	144.8	148.4	150.0	151.6	153.3	155.0
105°	143.4	148.7	154.0	157.6	159.4	161.3	163.1	164.9
107.5°	154.9	160.1	165.3	168.7	170.0	171.5	173.0	174.4
110°	162.6	167.1	171.7	174.9	176.7	178.6	180.4	182.2





TEST NUMBER: P332584-935

CATALOG NUMBER: S124DIP-S795D365U935-4F0-1E-UDD-D1

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	170.7	175.2	179.8	182.8	184.5	186.1	187.9	189.5
115°	183.9	188.3	192.7	195.6	197.0	198.3	199.7	201.0
117.5°	195.9	199.9	203.9	206.6	208.2	209.7	211.1	212.7
120°	204.1	207.8	211.5	214.3	216.1	217.8	219.6	221.4
122.5°	212.8	216.7	220.5	223.1	224.3	225.5	226.7	227.9
125°	226.0	229.7	233.5	235.9	236.9	238.1	239.1	240.2
127.5°	237.5	241.0	244.5	246.9	248.1	249.4	250.7	252.0
130°	246.0	249.4	253.0	255.2	256.2	257.2	258.1	259.1
132.5°	254.2	257.5	260.9	263.1	264.2	265.4	266.5	267.5
135°	265.4	268.6	271.7	273.8	274.8	275.9	276.9	277.8
137.5°	277.3	280.1	282.9	284.8	285.9	287.0	288.0	289.0
140°	285.3	287.9	290.5	292.3	293.3	294.2	295.2	296.1
142.5°	293.6	295.9	298.2	299.8	300.6	301.4	302.3	303.2
145°	306.5	307.7	308.8	309.7	310.4	311.0	311.6	312.2
147.5°	318.5	318.7	318.7	319.1	319.7	320.3	320.8	321.4
150°	327.1	327.1	327.1	327.0	327.0	326.9	326.8	326.7
152.5°	335.4	335.6	335.8	335.7	335.5	335.4	335.2	335.0
155°	347.1	347.3	347.6	347.6	347.3	347.1	346.8	346.6
157.5°	357.3	357.6	357.7	357.7	357.5	357.3	357.1	356.8
160°	363.7	363.9	364.1	364.0	363.7	363.3	363.0	362.7
162.5°	369.4	369.7	370.1	370.1	369.8	369.5	369.1	368.8
165°	376.9	377.3	377.6	377.7	377.5	377.2	376.9	376.7
167.5°	383.2	383.6	384.0	384.0	383.6	383.1	382.7	382.3
170°	386.6	387.0	387.4	387.4	386.9	386.4	386.0	385.5
172.5°	389.2	389.6	390.0	390.0	389.6	389.1	388.7	388.1
175°	391.9	392.4	392.9	392.9	392.4	391.9	391.4	391.0
177.5°	393.4	393.8	394.2	394.2	393.7	393.3	392.9	392.4
180°	393.4	393.4	393.4	393.4	393.4	393.4	393.4	393.4

(END OF REPORT)