

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: P332584-930

Luminaire Tested: **S124DIP-S795D365U930-4F0-1E-UDD-D1**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P332584-930
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-S795D365U930-4F0-1E-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: 3674.5 lumens
Efficiency: N/A
Efficacy: 105.0 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

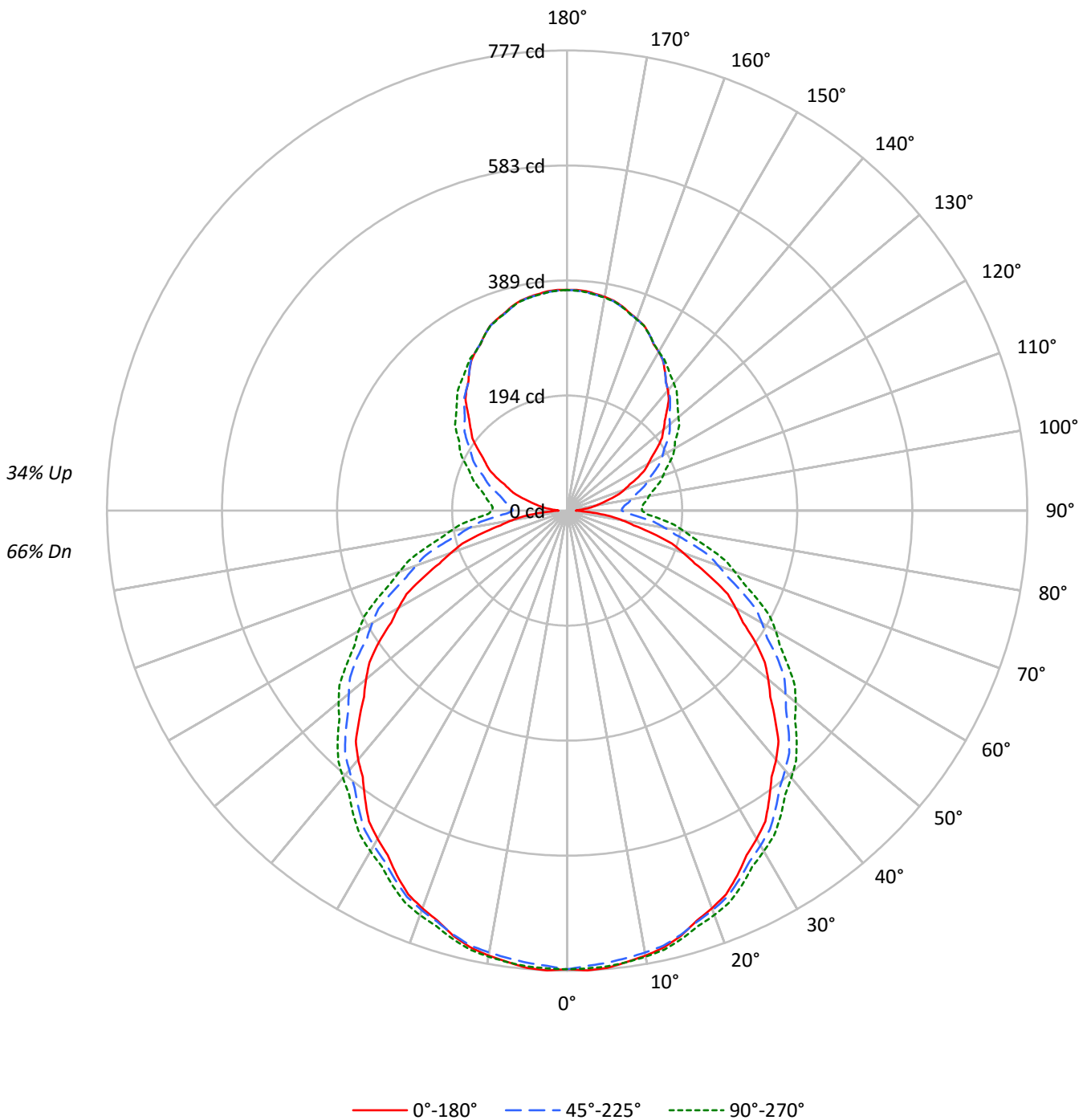
Input Watts (W): 35
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P332584-930

CATALOG NUMBER: S124DIP-S795D365U930-4F0-1E-UDD-D1

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	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°	6252	6252	6252
5°	6271	6110	6128
10°	6233	6010	6006
15°	6177	5894	5862
20°	6093	5766	5723
25°	5998	5624	5569
30°	5895	5481	5411
35°	5779	5336	5274
40°	5685	5196	5129
45°	5547	5069	5005
50°	5430	4922	4876
55°	5310	4783	4722
60°	5121	4605	4583
65°	4915	4414	4411
70°	4666	4197	4210
75°	4318	3960	4029
80°	3929	3731	3851
85°	3441	3526	3748



TEST NUMBER: P332584-930

CATALOG NUMBER: S124DIP-S795D365U930-4F0-1E-UDD-D1

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	73.3	2.0
10°-20°	210.1	5.7
20°-30°	317.7	8.6
30°-40°	384.4	10.5
40°-50°	406.4	11.1
50°-60°	382.5	10.4
60°-70°	317.3	8.6
70°-80°	222.9	6.1
80°-90°	127.1	3.5
90°-100°	99.4	2.7
100°-110°	128.2	3.5
110°-120°	160.7	4.4
120°-130°	183.9	5.0
130°-140°	192.0	5.2
140°-150°	181.6	4.9
150°-160°	151.2	4.1
160°-170°	100.6	2.7
170°-180°	35.2	1.0
0°-30°	601.2	16.4
0°-40°	985.6	26.8
0°-60°	1774.4	48.3
0°-90°	2441.8	66.5
90°-120°	388.3	10.6
90°-150°	945.7	25.7
90°-180°	1233.0	33.6
0°-180°	3674.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	774	774	774	774	774	
5°	775	772	767	773	773	74
15°	743	744	741	749	748	209
25°	680	685	688	697	698	313
35°	595	605	614	626	629	372
45°	496	513	529	543	548	383
55°	388	407	433	449	455	346
65°	269	297	326	347	355	266
75°	149	182	218	241	250	159
85°	46	83	121	146	156	49
90°	15	53	92	118	127	10
95°	28	60	97	121	129	28
105°	75	93	126	148	156	80
115°	131	140	166	184	190	129
125°	186	187	207	222	228	166
135°	238	240	246	258	263	184
145°	288	288	288	293	296	180
155°	328	328	328	329	328	151
165°	358	357	356	358	357	101
175°	372	371	370	372	370	35
180°	372	372	372	372	372	



TEST NUMBER: P332584-930

CATALOG NUMBER: S124DIP-S795D365U930-4F0-1E-UDD-D1

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	774.5	774.5	774.5	774.5	774.5	774.5	774.5	774.5	774.5	774.5	774.5
2.5°	777.2	776.7	776.2	775.8	775.3	774.5	773.2	772.0	770.8	769.6	770.6
5°	775.3	774.7	774.1	773.6	773.0	772.0	770.6	769.3	767.9	766.6	768.2
7.5°	768.7	768.3	768.0	767.7	767.3	766.5	765.5	764.3	763.2	762.1	763.9
10°	763.1	763.0	762.8	762.5	762.4	761.8	760.8	759.9	758.9	757.9	759.7
12.5°	755.5	755.5	755.5	755.4	755.4	755.0	754.4	753.7	753.0	752.4	754.0
15°	743.2	743.4	743.6	743.8	744.0	743.8	743.2	742.7	742.0	741.4	743.2
17.5°	726.4	726.9	727.5	728.1	728.7	728.9	728.8	728.7	728.6	728.5	730.3
20°	714.6	715.2	715.8	716.3	716.9	717.3	717.5	717.6	717.9	718.0	720.0
22.5°	701.4	702.1	702.9	703.6	704.3	704.9	705.2	705.6	705.9	706.3	708.2
25°	679.9	681.0	682.2	683.4	684.5	685.4	686.0	686.6	687.1	687.7	689.8
27.5°	656.0	657.6	659.3	661.0	662.8	664.1	665.0	665.8	666.7	667.6	669.5
30°	640.0	641.6	643.1	644.7	646.2	647.6	649.0	650.3	651.7	653.0	655.1
32.5°	622.6	624.5	626.4	628.2	630.1	631.7	633.2	634.7	636.3	637.7	640.2
35°	594.9	597.2	599.6	601.9	604.1	606.3	608.2	610.2	612.0	614.0	616.7
37.5°	567.0	569.6	572.3	574.9	577.6	580.2	582.5	584.9	587.3	589.7	592.5
40°	548.9	551.5	553.9	556.4	559.0	561.6	564.3	567.0	569.6	572.3	575.3
42.5°	528.2	530.9	533.8	536.5	539.4	542.3	545.5	548.7	551.9	555.0	558.2
45°	496.0	499.7	503.4	507.0	510.7	514.4	518.0	521.7	525.3	529.0	532.3
47.5°	465.4	469.1	472.9	476.7	480.5	484.5	488.7	492.9	497.2	501.4	504.8
50°	443.1	447.4	451.6	455.8	460.1	464.3	468.6	472.8	477.0	481.3	485.2
52.5°	420.9	425.2	429.4	433.7	437.9	442.5	447.3	452.2	457.1	461.9	465.7
55°	388.5	392.6	396.6	400.6	404.7	409.6	415.4	421.2	427.0	432.8	436.6
57.5°	352.3	357.3	362.3	367.3	372.3	377.6	383.4	389.1	394.9	400.6	405.2
60°	328.6	333.7	338.7	343.7	348.7	354.4	360.8	367.1	373.5	379.8	384.3
62.5°	305.7	311.3	316.7	322.2	327.7	333.6	340.0	346.3	352.7	359.1	363.5
65°	268.8	275.0	281.2	287.3	293.5	299.9	306.4	313.0	319.5	326.0	330.8
67.5°	233.3	239.9	246.4	252.9	259.5	266.3	273.3	280.3	287.3	294.3	299.2
70°	209.0	215.6	222.1	228.7	235.2	242.1	249.5	256.8	264.1	271.4	276.6
72.5°	185.4	192.1	198.9	205.5	212.2	219.5	227.3	235.1	242.9	250.6	255.7
75°	149.2	156.3	163.4	170.6	177.7	185.3	193.4	201.5	209.6	217.7	223.1
77.5°	115.4	122.9	130.4	138.0	145.5	153.6	162.1	170.6	179.0	187.5	193.0
80°	94.5	102.2	109.9	117.6	125.4	133.5	141.9	150.4	158.9	167.4	173.2
82.5°	73.7	81.7	89.8	97.8	105.7	114.1	122.5	131.0	139.5	148.0	153.8
85°	46.0	54.1	62.1	70.3	78.4	86.7	95.4	104.0	112.8	121.4	127.2
87.5°	25.8	33.8	41.8	49.8	57.9	66.1	74.7	83.2	91.7	100.3	106.0
90°	14.8	23.2	31.6	39.9	48.4	57.0	65.8	74.6	83.4	92.2	98.2
92.5°	19.3	27.1	34.8	42.6	50.3	58.5	67.2	75.8	84.5	93.1	98.7
95°	28.5	35.5	42.4	49.4	56.3	63.9	72.3	80.6	89.0	97.3	102.7
97.5°	40.4	46.4	52.3	58.2	64.2	71.3	79.7	88.0	96.4	104.7	110.0
100°	49.9	55.1	60.4	65.7	70.9	77.6	85.7	93.8	101.9	110.0	115.3
102.5°	60.5	65.0	69.5	73.9	78.4	84.6	92.5	100.4	108.3	116.2	121.4
105°	74.9	78.8	82.8	86.7	90.6	96.3	103.6	111.0	118.4	125.8	130.8
107.5°	91.7	95.0	98.2	101.5	104.7	109.7	116.5	123.3	130.0	136.9	141.8
110°	102.6	105.4	108.3	111.0	113.9	118.6	125.3	132.0	138.7	145.4	149.7



TEST NUMBER: P332584-930

CATALOG NUMBER: S124DIP-S795D365U930-4F0-1E-UDD-D1

CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	113.9	116.3	118.7	121.2	123.5	127.9	134.2	140.6	146.8	153.2	157.4
115°	130.8	132.6	134.3	136.0	137.8	141.6	147.7	153.7	159.7	165.8	170.0
117.5°	147.6	148.7	149.8	150.8	152.0	155.3	160.9	166.6	172.3	177.9	181.7
120°	158.2	159.0	159.9	160.7	161.5	164.6	170.0	175.5	180.8	186.2	189.7
122.5°	169.9	170.2	170.4	170.6	170.8	173.5	178.7	183.9	189.1	194.3	197.9
125°	186.4	186.2	186.1	185.8	185.6	187.9	192.7	197.5	202.2	206.9	210.5
127.5°	201.9	201.9	201.9	201.9	201.9	203.7	207.3	211.0	214.6	218.2	221.5
130°	212.3	212.3	212.3	212.3	212.3	213.9	217.0	220.0	223.1	226.2	229.6
132.5°	223.6	223.6	223.6	223.5	223.4	224.6	227.1	229.4	231.9	234.2	237.4
135°	237.7	238.1	238.5	238.8	239.2	240.1	241.4	242.8	244.1	245.5	248.4
137.5°	254.0	253.9	253.9	253.9	253.9	254.3	255.0	255.8	256.5	257.3	259.9
140°	264.8	264.7	264.6	264.6	264.5	264.6	264.7	265.0	265.1	265.4	267.8
142.5°	274.0	274.1	274.2	274.3	274.3	274.3	274.1	273.9	273.8	273.6	275.8
145°	287.6	287.6	287.6	287.7	287.8	287.9	287.9	288.0	288.0	288.1	289.2
147.5°	301.1	301.3	301.3	301.5	301.6	301.6	301.6	301.5	301.5	301.4	301.5
150°	309.4	309.5	309.6	309.7	309.7	309.7	309.7	309.7	309.7	309.7	309.7
152.5°	316.6	316.7	316.8	316.9	317.0	317.1	317.2	317.2	317.2	317.3	317.5
155°	328.4	328.4	328.4	328.4	328.4	328.4	328.3	328.2	328.2	328.2	328.4
157.5°	338.6	338.4	338.3	338.3	338.1	338.0	338.0	338.0	338.0	338.0	338.2
160°	344.5	344.5	344.5	344.4	344.3	344.2	344.2	344.1	344.1	344.0	344.2
162.5°	350.1	349.9	349.8	349.6	349.4	349.4	349.3	349.2	349.1	349.0	349.4
165°	357.5	357.3	357.2	356.9	356.8	356.6	356.4	356.4	356.2	356.1	356.4
167.5°	363.2	363.0	362.7	362.4	362.2	362.0	362.1	362.1	362.1	362.1	362.5
170°	366.5	366.2	365.8	365.5	365.2	365.1	365.1	365.2	365.3	365.3	365.7
172.5°	368.8	368.5	368.2	367.9	367.7	367.5	367.5	367.6	367.6	367.6	368.0
175°	371.9	371.6	371.3	371.0	370.6	370.5	370.4	370.3	370.3	370.2	370.6
177.5°	373.0	372.8	372.4	372.2	371.9	371.9	371.9	371.9	371.9	371.9	372.2
180°	372.5	372.5	372.5	372.5	372.5	372.5	372.5	372.5	372.5	372.5	372.5



TEST NUMBER: P332584-930

CATALOG NUMBER: S124DIP-S795D365U930-4F0-1E-UDD-D1

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	774.5	774.5	774.5	774.5	774.5	774.5	774.5	774.5
2.5°	771.7	772.8	773.9	774.4	774.2	774.0	773.9	773.7
5°	769.7	771.3	772.7	773.5	773.2	773.1	772.9	772.7
7.5°	765.6	767.3	769.1	769.8	769.6	769.4	769.2	769.1
10°	761.4	763.1	764.9	765.6	765.5	765.2	765.1	764.9
12.5°	755.5	757.2	758.7	759.5	759.5	759.4	759.4	759.3
15°	744.9	746.7	748.4	749.2	749.0	748.8	748.6	748.4
17.5°	732.0	733.8	735.6	736.4	736.2	736.1	735.9	735.7
20°	721.9	723.8	725.8	726.8	726.8	726.8	726.8	726.8
22.5°	710.1	712.0	714.0	715.1	715.4	715.7	716.0	716.3
25°	691.9	694.1	696.2	697.3	697.5	697.7	697.9	698.1
27.5°	671.5	673.4	675.5	676.5	676.8	677.0	677.3	677.4
30°	657.2	659.3	661.5	662.8	663.2	663.5	663.9	664.3
32.5°	642.6	645.1	647.4	648.9	649.2	649.6	650.0	650.4
35°	619.4	622.1	624.8	626.4	627.0	627.5	628.2	628.8
37.5°	595.2	597.9	600.6	602.3	602.9	603.6	604.1	604.8
40°	578.1	581.1	583.9	585.7	586.5	587.3	588.1	588.8
42.5°	561.4	564.6	567.8	569.7	570.3	571.0	571.6	572.2
45°	535.6	538.8	542.1	544.2	545.2	546.2	547.1	548.0
47.5°	508.2	511.6	515.0	517.2	518.4	519.6	520.7	521.9
50°	489.0	492.8	496.7	499.2	500.3	501.6	502.7	503.9
52.5°	469.6	473.4	477.3	479.8	480.9	482.1	483.2	484.5
55°	440.4	444.3	448.2	450.7	451.8	453.0	454.1	455.3
57.5°	409.9	414.4	419.0	421.8	422.9	424.0	425.1	426.2
60°	388.7	393.1	397.5	400.6	402.1	403.7	405.2	406.8
62.5°	367.9	372.3	376.7	379.8	381.3	382.9	384.3	385.9
65°	335.7	340.6	345.4	348.5	350.1	351.6	353.1	354.7
67.5°	304.1	309.0	313.9	317.1	318.6	320.1	321.6	323.1
70°	281.8	287.1	292.3	295.5	296.9	298.2	299.5	300.9
72.5°	260.7	265.8	270.8	274.1	275.6	277.1	278.6	280.1
75°	228.4	233.8	239.3	242.8	244.6	246.3	248.0	249.7
77.5°	198.4	203.9	209.4	213.0	214.9	216.7	218.6	220.5
80°	179.0	184.7	190.5	194.1	195.7	197.2	198.8	200.3
82.5°	159.8	165.8	171.7	175.5	177.2	178.9	180.6	182.3
85°	133.0	138.8	144.6	148.4	150.3	152.2	154.2	156.1
87.5°	111.6	117.3	122.9	126.7	128.4	130.1	131.8	133.5
90°	104.1	110.1	116.1	119.9	121.6	123.3	124.9	126.6
92.5°	104.4	110.1	115.8	119.4	121.0	122.6	124.3	125.9
95°	108.1	113.5	119.0	122.5	124.3	126.0	127.7	129.4
97.5°	115.3	120.5	125.8	129.3	130.9	132.6	134.3	135.9
100°	120.7	126.0	131.3	134.7	136.0	137.4	138.7	140.1
102.5°	126.6	131.9	137.1	140.5	142.0	143.6	145.2	146.8
105°	135.8	140.8	145.9	149.2	150.9	152.7	154.4	156.1
107.5°	146.7	151.6	156.5	159.7	161.0	162.4	163.8	165.2
110°	154.0	158.2	162.6	165.6	167.3	169.1	170.8	172.5



TEST NUMBER: P332584-930

CATALOG NUMBER: S124DIP-S795D365U930-4F0-1E-UDD-D1

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	161.7	165.9	170.2	173.1	174.7	176.3	177.9	179.4
115°	174.1	178.3	182.5	185.2	186.5	187.8	189.1	190.4
117.5°	185.5	189.3	193.1	195.7	197.1	198.5	199.9	201.4
120°	193.3	196.8	200.3	202.9	204.6	206.3	208.0	209.6
122.5°	201.5	205.2	208.8	211.2	212.4	213.5	214.7	215.8
125°	214.0	217.5	221.1	223.4	224.4	225.4	226.4	227.5
127.5°	224.9	228.2	231.5	233.8	235.0	236.2	237.4	238.6
130°	232.9	236.2	239.5	241.7	242.6	243.5	244.4	245.3
132.5°	240.7	243.9	247.0	249.2	250.2	251.3	252.3	253.3
135°	251.4	254.4	257.3	259.3	260.2	261.2	262.2	263.1
137.5°	262.6	265.2	267.9	269.7	270.7	271.7	272.7	273.7
140°	270.2	272.6	275.1	276.8	277.7	278.6	279.5	280.4
142.5°	278.0	280.2	282.3	283.9	284.6	285.4	286.3	287.1
145°	290.2	291.4	292.4	293.3	293.9	294.5	295.1	295.6
147.5°	301.6	301.7	301.8	302.1	302.7	303.3	303.8	304.4
150°	309.7	309.7	309.7	309.7	309.7	309.6	309.5	309.4
152.5°	317.6	317.8	318.0	317.9	317.7	317.6	317.4	317.2
155°	328.6	328.9	329.1	329.1	328.9	328.6	328.4	328.2
157.5°	338.3	338.6	338.8	338.8	338.5	338.3	338.1	337.9
160°	344.4	344.5	344.8	344.7	344.4	344.1	343.7	343.4
162.5°	349.8	350.1	350.4	350.4	350.2	349.8	349.5	349.2
165°	356.9	357.3	357.6	357.7	357.4	357.2	356.9	356.7
167.5°	362.9	363.2	363.6	363.6	363.2	362.8	362.4	362.0
170°	366.1	366.5	366.9	366.8	366.4	365.9	365.5	365.0
172.5°	368.5	368.9	369.3	369.3	368.9	368.4	368.0	367.5
175°	371.1	371.5	372.0	372.0	371.5	371.1	370.6	370.2
177.5°	372.5	372.9	373.2	373.2	372.8	372.4	372.0	371.6
180°	372.5	372.5	372.5	372.5	372.5	372.5	372.5	372.5

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