

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: P332566-927

Luminaire Tested: **S124DIP-S575D1035U927-4F0-1E-UDD-D1**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P332566-927
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-S575D1035U927-4F0-1E-UDD-D1
Description: DEFINE 4 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 575 LUMENS PER FOOT, DROP SATIN WHITE DIFFUSER
UPLIGHT 1035 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4716.1 lumens
Efficiency: N/A
Efficacy: 106.0 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-Indirect

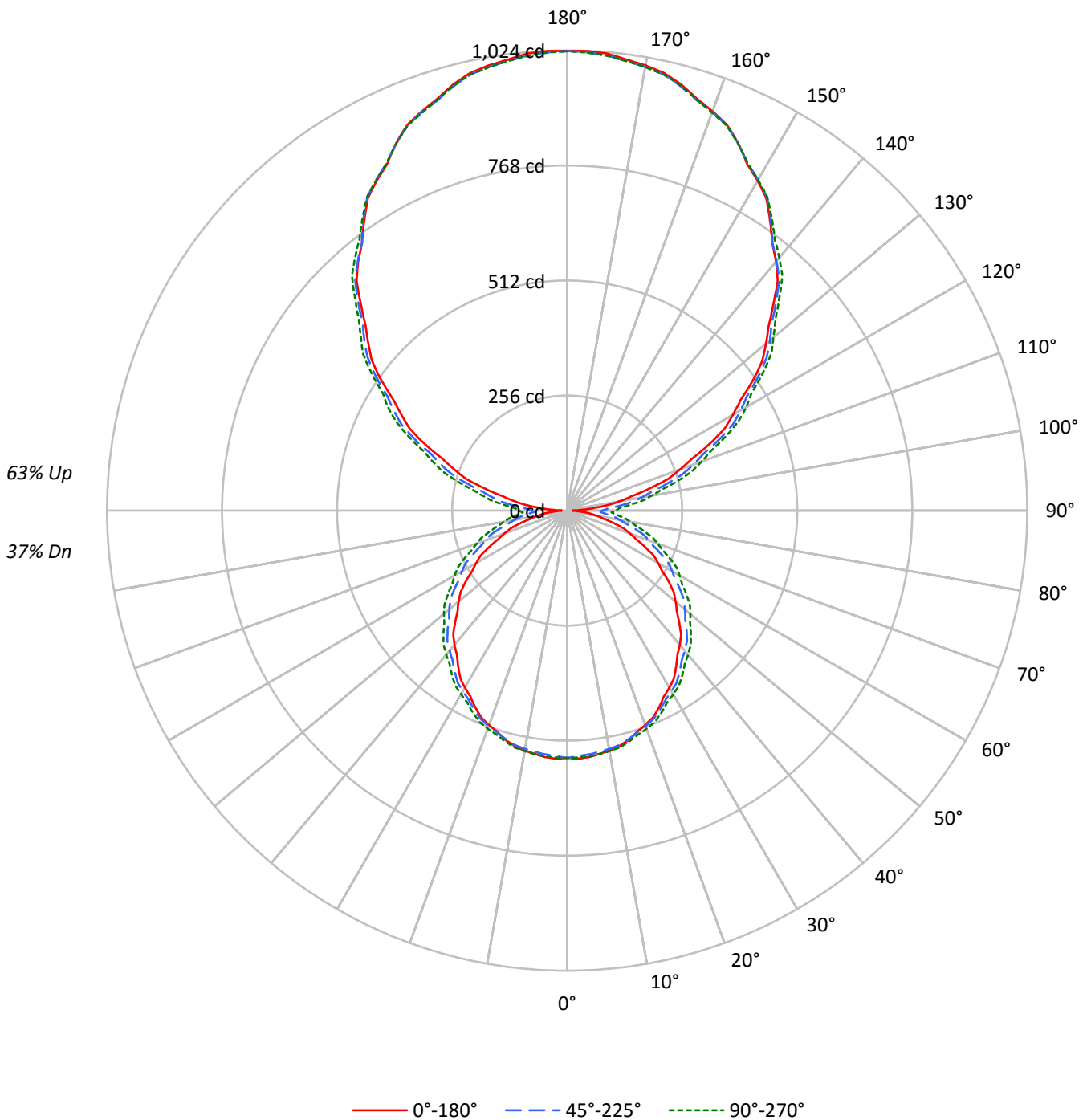
Input Watts (W): 44.5
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P332566-927

CATALOG NUMBER: S124DIP-S575D1035U927-4F0-1E-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	104	104	104	104	94	94	94	94	76	76	76	59	59	59	44	44	44	37
1	94	90	85	82	85	81	78	74	65	63	61	51	49	48	38	37	36	29
2	85	78	71	66	77	70	65	60	57	53	50	44	42	39	33	31	29	24
3	78	68	61	55	70	62	55	50	50	45	41	39	36	33	29	27	25	20
4	71	60	52	46	64	54	47	42	44	39	35	34	31	28	25	23	21	17
5	65	53	45	39	58	48	41	36	39	34	30	31	27	24	23	20	18	15
6	60	48	39	34	54	43	36	31	35	30	26	28	24	21	21	18	16	13
7	55	43	35	29	50	39	32	27	32	26	23	25	21	18	19	16	14	11
8	51	39	31	26	46	35	28	24	29	24	20	23	19	16	17	14	12	10
9	47	35	28	23	43	32	26	21	26	21	18	21	17	14	16	13	11	9
10	44	32	25	20	40	29	23	19	24	19	16	19	16	13	15	12	10	8

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	4444	4444	4444
5°	4458	4343	4355
10°	4431	4273	4269
15°	4391	4190	4167
20°	4331	4099	4068
25°	4264	3998	3958
30°	4191	3896	3847
35°	4108	3792	3748
40°	4041	3694	3646
45°	3943	3603	3558
50°	3860	3498	3465
55°	3775	3400	3356
60°	3640	3274	3257
65°	3494	3139	3136
70°	3315	2985	2993
75°	3068	2814	2864
80°	2794	2652	2738
85°	2439	2507	2665



TEST NUMBER: P332566-927

CATALOG NUMBER: S124DIP-S575D1035U927-4F0-1E-UDD-D1

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	52.1	1.1
10°-20°	149.4	3.2
20°-30°	225.8	4.8
30°-40°	273.2	5.8
40°-50°	288.9	6.1
50°-60°	271.9	5.8
60°-70°	225.6	4.8
70°-80°	158.4	3.4
80°-90°	92.6	2.0
90°-100°	120.6	2.6
100°-110°	239.1	5.1
110°-120°	365.5	7.7
120°-130°	462.0	9.8
130°-140°	508.5	10.8
140°-150°	494.7	10.5
150°-160°	415.0	8.8
160°-170°	276.1	5.9
170°-180°	96.7	2.1
0°-30°	427.3	9.1
0°-40°	700.6	14.9
0°-60°	1261.3	26.7
0°-90°	1737.9	36.9
90°-120°	725.2	15.4
90°-150°	2190.4	46.4
90°-180°	2978.0	63.1
0°-180°	4716.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	550	550	550	550	550	
5°	551	549	545	550	549	52
15°	528	529	527	532	532	149
25°	483	487	489	495	496	223
35°	423	430	436	445	447	265
45°	353	364	376	386	390	272
55°	276	289	308	319	324	246
65°	191	211	232	247	252	189
75°	106	129	155	171	178	113
85°	33	59	86	104	111	35
90°	12	46	78	100	108	10
95°	56	83	114	132	138	59
105°	190	204	229	246	254	202
115°	348	355	372	384	388	344
125°	504	505	519	528	531	450
135°	649	654	658	666	668	502
145°	787	790	791	793	794	493
155°	901	901	901	903	901	415
165°	981	979	977	982	979	276
175°	1021	1017	1016	1021	1016	97
180°	1022	1022	1022	1022	1022	



TEST NUMBER: P332566-927

CATALOG NUMBER: S124DIP-S575D1035U927-4F0-1E-UDD-D1

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	550.5	550.5	550.5	550.5	550.5	550.5	550.5	550.5	550.5	550.5	550.5
2.5°	552.5	552.2	551.8	551.4	551.1	550.6	549.7	548.8	547.9	547.0	547.8
5°	551.1	550.7	550.2	549.9	549.5	548.7	547.8	546.8	545.9	544.9	546.1
7.5°	546.4	546.1	545.9	545.7	545.4	544.9	544.2	543.4	542.5	541.7	543.0
10°	542.5	542.3	542.2	542.1	541.9	541.5	540.8	540.1	539.5	538.8	540.0
12.5°	537.0	537.0	537.0	536.9	536.9	536.7	536.2	535.8	535.3	534.8	535.9
15°	528.3	528.5	528.5	528.7	528.9	528.7	528.3	527.9	527.4	527.0	528.3
17.5°	516.3	516.7	517.1	517.5	518.0	518.2	518.1	518.0	517.9	517.8	519.0
20°	507.9	508.3	508.7	509.2	509.6	509.8	510.0	510.2	510.2	510.4	511.7
22.5°	498.6	499.1	499.6	500.1	500.7	501.1	501.3	501.5	501.8	502.0	503.4
25°	483.3	484.1	485.0	485.8	486.6	487.2	487.6	488.0	488.5	488.9	490.4
27.5°	466.3	467.5	468.7	469.9	471.1	472.0	472.6	473.2	473.9	474.5	475.9
30°	455.0	456.1	457.1	458.2	459.3	460.3	461.3	462.2	463.2	464.2	465.7
32.5°	442.6	443.9	445.2	446.6	447.9	449.1	450.1	451.2	452.3	453.4	455.0
35°	422.9	424.5	426.2	427.8	429.4	430.9	432.3	433.7	435.1	436.4	438.4
37.5°	403.1	404.9	406.8	408.7	410.6	412.4	414.1	415.8	417.5	419.1	421.1
40°	390.2	392.0	393.8	395.5	397.4	399.2	401.1	403.0	405.0	406.9	408.9
42.5°	375.4	377.4	379.4	381.4	383.4	385.6	387.8	390.0	392.3	394.5	396.8
45°	352.6	355.2	357.8	360.4	363.0	365.6	368.2	370.8	373.4	376.0	378.3
47.5°	330.8	333.4	336.1	338.8	341.5	344.4	347.4	350.4	353.4	356.4	358.9
50°	315.0	318.0	321.0	324.1	327.1	330.1	333.1	336.1	339.1	342.1	344.8
52.5°	299.2	302.2	305.2	308.2	311.2	314.5	318.0	321.4	324.9	328.3	331.1
55°	276.2	279.0	281.9	284.8	287.6	291.1	295.2	299.4	303.5	307.6	310.4
57.5°	250.4	254.0	257.5	261.1	264.7	268.5	272.5	276.6	280.7	284.8	288.0
60°	233.6	237.2	240.7	244.3	247.9	251.9	256.4	260.9	265.5	270.0	273.1
62.5°	217.4	221.3	225.1	229.0	232.9	237.1	241.6	246.1	250.7	255.2	258.3
65°	191.1	195.5	199.9	204.2	208.7	213.2	217.8	222.4	227.1	231.8	235.2
67.5°	165.8	170.5	175.2	179.8	184.4	189.3	194.2	199.2	204.2	209.2	212.7
70°	148.5	153.2	157.9	162.6	167.2	172.1	177.3	182.5	187.7	193.0	196.6
72.5°	131.8	136.6	141.3	146.1	150.8	156.0	161.5	167.1	172.6	178.2	181.7
75°	106.0	111.1	116.1	121.2	126.3	131.7	137.4	143.2	149.0	154.7	158.6
77.5°	82.0	87.4	92.8	98.1	103.5	109.2	115.2	121.2	127.2	133.2	137.1
80°	67.2	72.6	78.2	83.7	89.1	94.8	100.9	106.9	113.0	119.0	123.1
82.5°	52.4	58.1	63.8	69.5	75.2	81.0	87.1	93.1	99.1	105.2	109.4
85°	32.6	38.4	44.2	49.9	55.7	61.6	67.8	74.0	80.2	86.3	90.4
87.5°	18.7	24.7	30.7	36.7	42.6	48.7	55.1	61.3	67.6	73.9	78.0
90°	12.2	19.6	27.1	34.5	41.9	49.3	56.6	63.8	71.1	78.4	83.4
92.5°	26.3	33.4	40.6	47.7	54.9	61.9	68.8	75.7	82.5	89.4	93.9
95°	55.5	61.6	67.7	73.8	79.9	86.3	93.2	100.1	106.9	113.8	118.0
97.5°	90.2	95.3	100.4	105.6	110.7	116.8	123.8	130.9	137.8	144.9	149.1
100°	117.5	121.8	126.0	130.2	134.5	140.1	147.0	154.0	160.9	167.9	171.9
102.5°	146.6	150.0	153.4	156.8	160.2	165.2	171.9	178.6	185.3	191.9	196.0
105°	189.8	192.7	195.6	198.5	201.5	205.8	211.6	217.3	223.1	228.9	232.8
107.5°	236.3	238.8	241.2	243.7	246.1	249.9	254.7	259.6	264.5	269.4	273.3
110°	267.4	269.7	272.0	274.3	276.6	280.0	284.6	289.2	293.8	298.4	301.3



TEST NUMBER: P332566-927

CATALOG NUMBER: S124DIP-S575D1035U927-4F0-1E-UDD-D1

CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	299.8	301.6	303.4	305.1	306.9	309.9	314.2	318.5	322.7	326.9	329.9
115°	348.5	349.7	350.9	352.1	353.4	356.0	360.0	364.1	368.1	372.2	374.9
117.5°	394.8	395.7	396.6	397.4	398.3	400.7	404.6	408.4	412.2	416.1	418.3
120°	425.3	426.4	427.5	428.6	429.8	432.1	435.5	438.9	442.4	445.8	447.7
122.5°	457.6	458.0	458.3	458.7	459.1	461.0	464.5	468.0	471.5	475.0	477.1
125°	504.5	504.5	504.3	504.1	504.0	505.6	508.8	512.1	515.3	518.6	520.8
127.5°	547.6	548.0	548.4	548.7	549.1	550.6	552.9	555.2	557.6	559.9	562.1
130°	577.5	577.9	578.3	578.7	579.0	580.4	582.5	584.7	586.9	589.1	591.2
132.5°	608.5	608.7	609.0	609.2	609.5	610.4	612.0	613.6	615.2	616.9	618.9
135°	648.8	649.9	650.9	652.0	653.1	654.0	655.0	655.9	657.0	657.9	659.7
137.5°	693.4	693.8	694.1	694.5	694.8	695.4	696.2	696.9	697.6	698.4	699.9
140°	723.2	723.3	723.6	723.8	724.0	724.2	724.3	724.5	724.6	724.8	726.4
142.5°	749.9	750.2	750.5	750.8	751.1	751.2	751.0	750.8	750.5	750.3	751.9
145°	787.3	787.9	788.5	789.1	789.6	790.0	790.2	790.4	790.5	790.7	791.4
147.5°	824.7	825.4	826.1	826.8	827.5	827.8	827.7	827.5	827.4	827.3	827.2
150°	847.5	848.0	848.6	849.1	849.7	850.0	850.0	850.0	850.0	850.0	850.0
152.5°	868.5	868.9	869.3	869.7	870.1	870.3	870.4	870.6	870.8	870.8	871.3
155°	901.4	901.4	901.4	901.4	901.4	901.3	901.1	900.9	900.8	900.6	901.3
157.5°	929.2	928.9	928.6	928.3	928.0	927.8	927.7	927.7	927.7	927.6	928.2
160°	945.7	945.5	945.3	945.2	945.0	944.8	944.6	944.4	944.3	944.1	944.6
162.5°	960.8	960.4	960.0	959.5	959.0	958.7	958.5	958.4	958.2	958.0	958.9
165°	981.3	980.7	980.2	979.7	979.1	978.7	978.3	978.0	977.6	977.3	978.3
167.5°	997.0	996.2	995.5	994.7	994.0	993.6	993.6	993.7	993.7	993.8	994.8
170°	1005.8	1004.9	1004.0	1003.1	1002.3	1001.9	1002.1	1002.3	1002.4	1002.6	1003.7
172.5°	1012.1	1011.4	1010.7	1009.9	1009.2	1008.8	1008.8	1008.8	1008.9	1008.9	1010.1
175°	1020.8	1019.9	1019.1	1018.2	1017.3	1016.8	1016.6	1016.4	1016.2	1016.1	1017.3
177.5°	1023.7	1022.9	1022.2	1021.5	1020.8	1020.5	1020.5	1020.5	1020.5	1020.5	1021.4
180°	1022.4	1022.4	1022.4	1022.4	1022.4	1022.4	1022.4	1022.4	1022.4	1022.4	1022.4



TEST NUMBER: P332566-927

CATALOG NUMBER: S124DIP-S575D1035U927-4F0-1E-UDD-D1

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	550.5	550.5	550.5	550.5	550.5	550.5	550.5	550.5
2.5°	548.6	549.3	550.1	550.4	550.3	550.2	550.1	550.0
5°	547.2	548.2	549.3	549.8	549.7	549.5	549.4	549.2
7.5°	544.2	545.4	546.7	547.2	547.1	546.9	546.8	546.7
10°	541.2	542.5	543.7	544.2	544.2	544.0	543.8	543.7
12.5°	537.1	538.2	539.3	539.9	539.9	539.8	539.8	539.8
15°	529.5	530.8	532.0	532.5	532.4	532.3	532.1	532.0
17.5°	520.3	521.6	522.8	523.4	523.3	523.2	523.1	523.0
20°	513.2	514.5	515.9	516.6	516.6	516.6	516.6	516.6
22.5°	504.8	506.1	507.5	508.3	508.5	508.7	509.0	509.2
25°	491.9	493.4	494.9	495.7	495.8	496.0	496.1	496.2
27.5°	477.4	478.7	480.1	480.9	481.1	481.3	481.4	481.6
30°	467.2	468.7	470.2	471.1	471.3	471.7	471.9	472.2
32.5°	456.8	458.5	460.3	461.2	461.5	461.8	462.1	462.3
35°	440.3	442.2	444.1	445.3	445.7	446.1	446.5	446.9
37.5°	423.1	425.0	427.0	428.2	428.6	429.0	429.4	429.9
40°	411.0	413.0	415.1	416.4	416.9	417.5	418.0	418.6
42.5°	399.1	401.3	403.6	405.0	405.4	405.8	406.3	406.7
45°	380.7	383.0	385.3	386.8	387.5	388.2	388.9	389.6
47.5°	361.2	363.7	366.1	367.7	368.5	369.3	370.2	371.0
50°	347.6	350.4	353.1	354.9	355.7	356.5	357.4	358.1
52.5°	333.8	336.5	339.3	341.0	341.9	342.7	343.5	344.4
55°	313.1	315.8	318.5	320.4	321.2	322.0	322.8	323.6
57.5°	291.3	294.6	297.9	299.8	300.6	301.3	302.1	302.9
60°	276.3	279.5	282.6	284.7	285.8	286.9	288.0	289.1
62.5°	261.5	264.7	267.8	269.9	271.0	272.1	273.2	274.3
65°	238.6	242.1	245.5	247.7	248.8	249.9	251.0	252.2
67.5°	216.2	219.7	223.2	225.4	226.5	227.5	228.6	229.7
70°	200.3	204.1	207.7	210.1	211.0	212.0	212.9	213.9
72.5°	185.3	188.9	192.5	194.8	195.9	196.9	198.0	199.1
75°	162.4	166.2	170.1	172.6	173.8	175.1	176.3	177.5
77.5°	141.1	145.0	148.9	151.5	152.7	154.1	155.3	156.7
80°	127.2	131.3	135.4	138.0	139.1	140.2	141.3	142.4
82.5°	113.6	117.8	122.1	124.8	126.0	127.1	128.3	129.6
85°	94.5	98.6	102.7	105.5	106.9	108.2	109.6	111.0
87.5°	82.2	86.4	90.6	93.3	94.6	95.9	97.2	98.5
90°	88.5	93.5	98.5	101.8	103.2	104.6	106.1	107.6
92.5°	98.4	102.9	107.3	110.3	111.5	112.9	114.2	115.5
95°	122.2	126.4	130.6	133.3	134.6	135.9	137.0	138.3
97.5°	153.3	157.5	161.8	164.5	165.6	166.8	167.9	169.1
100°	175.9	180.0	184.0	186.6	187.5	188.5	189.4	190.4
102.5°	200.1	204.1	208.3	210.9	212.1	213.3	214.5	215.7
105°	236.8	240.7	244.7	247.5	249.1	250.7	252.3	254.0
107.5°	277.1	281.0	284.9	287.2	288.2	289.1	290.1	291.0
110°	304.0	306.8	309.7	311.9	313.5	315.1	316.7	318.4



TEST NUMBER: P332566-927

CATALOG NUMBER: S124DIP-S575D1035U927-4F0-1E-UDD-D1

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	332.9	335.9	338.8	341.0	342.1	343.3	344.5	345.7
115°	377.8	380.6	383.5	385.3	386.1	386.9	387.6	388.4
117.5°	420.6	422.8	425.1	426.5	427.3	428.0	428.8	429.5
120°	449.6	451.4	453.3	455.0	456.4	457.8	459.3	460.7
122.5°	479.3	481.4	483.5	484.8	485.1	485.5	485.8	486.2
125°	523.1	525.3	527.6	528.9	529.4	529.9	530.4	530.8
127.5°	564.2	566.3	568.4	569.8	570.5	571.1	571.7	572.4
130°	593.3	595.5	597.5	598.7	598.8	598.9	599.0	599.1
132.5°	620.8	622.9	624.9	626.1	626.7	627.2	627.8	628.3
135°	661.6	663.4	665.3	666.3	666.6	666.9	667.2	667.5
137.5°	701.5	703.0	704.6	705.7	706.5	707.3	708.1	708.8
140°	727.9	729.5	731.2	732.2	732.7	733.2	733.7	734.3
142.5°	753.4	754.9	756.5	757.5	758.0	758.5	759.1	759.6
145°	792.0	792.7	793.3	793.6	793.6	793.7	793.7	793.7
147.5°	827.2	827.1	827.1	827.2	827.5	827.8	828.0	828.3
150°	850.0	850.0	850.0	849.9	849.8	849.5	849.4	849.2
152.5°	871.7	872.1	872.6	872.6	872.1	871.6	871.2	870.7
155°	902.1	902.7	903.4	903.4	902.7	902.1	901.3	900.6
157.5°	928.7	929.2	929.8	929.7	929.2	928.5	928.0	927.3
160°	945.2	945.7	946.2	946.0	945.2	944.3	943.4	942.5
162.5°	959.9	960.8	961.8	961.9	961.0	960.1	959.3	958.3
165°	979.5	980.5	981.5	981.7	981.0	980.3	979.6	978.9
167.5°	995.9	997.0	998.0	998.0	996.9	995.8	994.7	993.6
170°	1004.7	1005.8	1006.9	1006.7	1005.5	1004.2	1003.1	1001.8
172.5°	1011.3	1012.5	1013.8	1013.7	1012.5	1011.2	1010.0	1008.8
175°	1018.5	1019.8	1021.0	1021.0	1019.8	1018.5	1017.3	1016.1
177.5°	1022.5	1023.4	1024.5	1024.4	1023.3	1022.1	1021.0	1019.9
180°	1022.4	1022.4	1022.4	1022.4	1022.4	1022.4	1022.4	1022.4

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