

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: P332556-935

Luminaire Tested: **S124DIP-S575D810U935-4F0-1E-UDD-D**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P332556-935  
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-S575D810U935-4F0-1E-UDD-D  
Description: DEFINE 4 DIRECT-INDIRECT PENDANT LED LUMINAIRE  
DOWNLIGHT 575 LUMENS PER FOOT, DROP SATIN WHITE DIFFUSER  
UPLIGHT 810 LUMENS PER FOOT, NO LENS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4826.3 lumens  
Efficiency: N/A  
Efficacy: 125.7 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

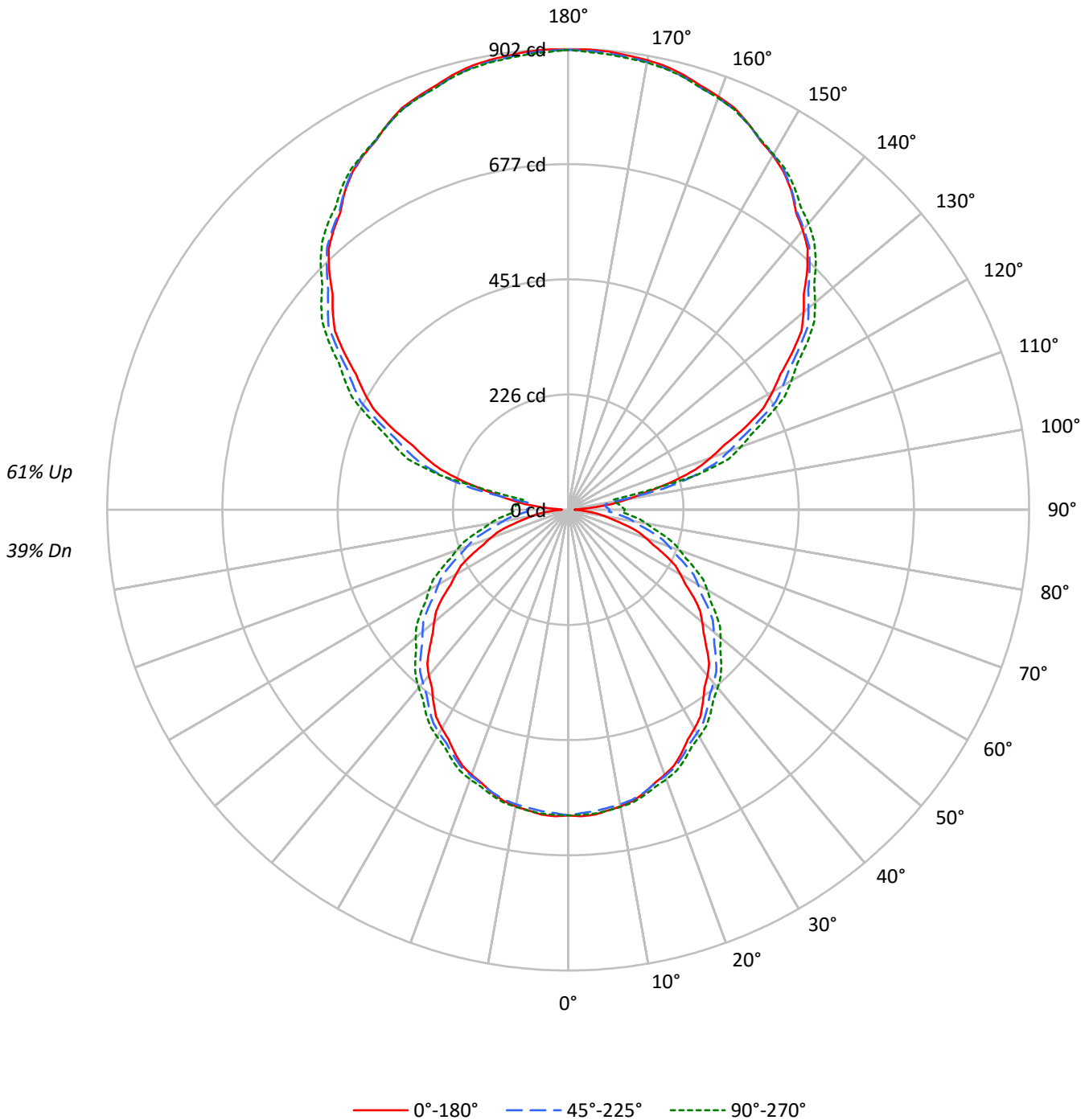
Input Watts (W): 38.4  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



TEST NUMBER: P332556-935

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### Luminous Intensity Polar Plot





TEST NUMBER: P332556-935

CATALOG NUMBER: S124DIP-S575D810U935-4F0-1E-UDD-D

**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	105	105	105	105	95	95	95	95	77	77	77	61	61	61	46	46	46	39
1	95	90	86	82	86	82	78	75	66	64	62	52	51	49	39	38	37	31
2	86	78	72	66	78	71	66	61	58	54	50	46	43	40	34	32	31	26
3	78	68	61	55	70	62	56	50	51	46	42	40	37	34	30	28	26	21
4	71	60	52	46	64	55	48	42	45	40	35	35	32	29	27	24	22	18
5	65	53	45	39	59	49	42	36	40	34	30	32	28	25	24	21	19	15
6	60	48	40	34	54	44	36	31	36	30	26	28	24	21	22	19	17	13
7	55	43	35	29	50	39	32	27	32	27	23	26	22	19	20	17	15	12
8	51	39	31	26	46	36	29	24	29	24	20	24	20	17	18	15	13	11
9	48	35	28	23	43	32	26	21	27	22	18	22	18	15	17	14	12	9
10	44	32	25	20	40	30	23	19	25	20	16	20	16	13	15	13	11	9

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

	0°	45°	90°
0°	4830	4830	4830
5°	4845	4721	4734
10°	4816	4644	4639
15°	4772	4554	4529
20°	4707	4455	4422
25°	4634	4345	4302
30°	4555	4235	4181
35°	4464	4122	4074
40°	4393	4015	3964
45°	4286	3916	3867
50°	4195	3803	3767
55°	4102	3695	3648
60°	3957	3557	3541
65°	3798	3411	3409
70°	3603	3243	3253
75°	3334	3060	3114
80°	3035	2882	2977
85°	2656	2725	2896



TEST NUMBER: P332556-935

CATALOG NUMBER: S124DIP-S575D810U935-4F0-1E-UDD-D

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	56.7	1.2
10°-20°	162.3	3.4
20°-30°	245.5	5.1
30°-40°	297.0	6.2
40°-50°	314.0	6.5
50°-60°	295.5	6.1
60°-70°	245.2	5.1
70°-80°	172.2	3.6
80°-90°	100.0	2.1
90°-100°	88.6	1.8
100°-110°	239.1	5.0
110°-120°	404.2	8.4
120°-130°	492.9	10.2
130°-140°	517.0	10.7
140°-150°	478.3	9.9
150°-160°	384.6	8.0
160°-170°	248.0	5.1
170°-180°	85.5	1.8
0°-30°	464.5	9.6
0°-40°	761.4	15.8
0°-60°	1370.9	28.4
0°-90°	1888.2	39.1
90°-120°	731.9	15.2
90°-150°	2220.0	46.0
90°-180°	2938.0	60.9
0°-180°	4826.3	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	598	598	598	598	598	
5°	599	597	592	597	597	57
15°	574	575	573	578	578	162
25°	525	529	531	538	539	242
35°	460	468	474	483	486	288
45°	383	396	409	420	423	296
55°	300	314	334	347	352	267
65°	208	229	252	268	274	206
75°	115	140	168	186	193	123
85°	36	64	94	113	121	38
90°	13	47	81	104	111	9
95°	46	46	73	94	102	54
105°	209	227	254	275	258	219
115°	382	391	411	427	432	376
125°	534	537	552	566	571	477
135°	661	661	668	680	685	509
145°	761	763	763	767	772	476
155°	834	835	833	835	833	384
165°	880	877	876	881	876	249
175°	900	896	897	902	895	86
180°	900	900	900	900	900	



TEST NUMBER: P332556-935

CATALOG NUMBER: S124DIP-S575D810U935-4F0-1E-UDD-D

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	598.3	598.3	598.3	598.3	598.3	598.3	598.3	598.3	598.3	598.3	598.3
2.5°	600.5	600.1	599.8	599.3	599.0	598.4	597.4	596.5	595.5	594.5	595.4
5°	599.0	598.6	598.1	597.6	597.2	596.4	595.4	594.3	593.3	592.3	593.5
7.5°	593.9	593.6	593.3	593.1	592.8	592.3	591.4	590.6	589.6	588.8	590.1
10°	589.6	589.4	589.3	589.2	589.0	588.6	587.8	587.0	586.3	585.6	586.9
12.5°	583.7	583.7	583.7	583.6	583.6	583.3	582.8	582.3	581.8	581.3	582.5
15°	574.2	574.4	574.5	574.6	574.8	574.6	574.2	573.8	573.3	572.8	574.2
17.5°	561.2	561.6	562.1	562.5	563.0	563.2	563.1	563.0	562.9	562.8	564.1
20°	552.1	552.5	552.9	553.5	553.9	554.1	554.3	554.5	554.6	554.7	556.2
22.5°	541.9	542.4	543.0	543.5	544.2	544.6	544.8	545.1	545.4	545.6	547.2
25°	525.3	526.2	527.1	528.0	528.8	529.5	529.9	530.4	530.9	531.3	533.0
27.5°	506.8	508.1	509.4	510.7	512.0	513.0	513.7	514.4	515.1	515.7	517.3
30°	494.5	495.7	496.8	498.0	499.2	500.3	501.4	502.4	503.4	504.5	506.2
32.5°	481.0	482.5	483.9	485.3	486.8	488.1	489.2	490.4	491.5	492.8	494.6
35°	459.6	461.4	463.2	464.9	466.7	468.4	469.8	471.4	472.9	474.3	476.5
37.5°	438.1	440.1	442.1	444.2	446.3	448.2	450.0	451.9	453.7	455.6	457.7
40°	424.1	426.0	428.0	429.9	431.9	433.9	435.9	438.0	440.1	442.2	444.4
42.5°	408.0	410.2	412.3	414.6	416.7	419.0	421.5	423.9	426.4	428.8	431.3
45°	383.2	386.1	388.9	391.8	394.5	397.4	400.2	403.0	405.9	408.7	411.2
47.5°	359.6	362.4	365.3	368.2	371.2	374.3	377.5	380.8	384.1	387.4	390.0
50°	342.3	345.6	348.9	352.2	355.5	358.8	362.1	365.3	368.6	371.9	374.8
52.5°	325.2	328.5	331.7	335.0	338.3	341.8	345.6	349.3	353.1	356.8	359.8
55°	300.1	303.2	306.4	309.5	312.6	316.4	320.9	325.4	329.8	334.3	337.3
57.5°	272.2	276.0	279.9	283.8	287.7	291.8	296.2	300.7	305.1	309.5	313.1
60°	253.9	257.8	261.7	265.5	269.4	273.8	278.7	283.6	288.5	293.4	296.9
62.5°	236.3	240.5	244.7	248.9	253.1	257.7	262.6	267.5	272.5	277.4	280.8
65°	207.7	212.5	217.2	222.0	226.8	231.7	236.7	241.8	246.8	251.9	255.6
67.5°	180.2	185.3	190.4	195.4	200.4	205.7	211.1	216.5	222.0	227.4	231.2
70°	161.4	166.5	171.6	176.7	181.8	187.1	192.7	198.4	204.1	209.7	213.7
72.5°	143.3	148.4	153.6	158.8	163.9	169.5	175.6	181.6	187.6	193.6	197.5
75°	115.2	120.7	126.2	131.7	137.2	143.2	149.4	155.7	162.0	168.2	172.4
77.5°	89.1	95.0	100.8	106.6	112.4	118.6	125.2	131.7	138.3	144.8	149.0
80°	73.0	79.0	85.0	90.9	96.9	103.1	109.7	116.2	122.8	129.3	133.8
82.5°	56.9	63.1	69.3	75.5	81.7	88.1	94.6	101.2	107.7	114.3	118.9
85°	35.5	41.8	48.0	54.2	60.5	67.0	73.7	80.4	87.1	93.8	98.2
87.5°	20.2	26.6	33.1	39.4	45.9	52.4	59.2	66.0	72.8	79.5	83.9
90°	12.7	20.3	28.0	35.6	43.1	50.7	58.4	66.0	73.5	81.1	86.4
92.5°	18.7	24.1	29.5	35.0	40.5	47.0	54.6	62.2	69.8	77.4	82.5
95°	45.7	45.5	45.4	45.2	45.0	48.0	54.3	60.6	66.8	73.1	78.0
97.5°	86.5	93.9	101.3	108.7	116.1	114.5	103.8	93.2	82.6	71.9	75.9
100°	117.8	124.3	130.9	137.5	144.0	139.9	125.0	110.2	95.4	80.5	82.1
102.5°	153.3	158.7	164.0	169.4	174.8	179.0	182.0	184.9	188.0	191.0	167.5
105°	208.7	212.6	216.5	220.3	224.2	229.2	235.5	241.8	248.0	254.3	259.3
107.5°	261.1	264.1	267.0	269.8	272.8	277.3	283.5	289.7	296.0	302.2	306.5
110°	296.2	298.7	301.3	303.8	306.3	310.6	316.8	322.9	329.0	335.1	338.8



TEST NUMBER: P332556-935

CATALOG NUMBER: S124DIP-S575D810U935-4F0-1E-UDD-D

**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	330.1	332.8	335.4	338.1	340.7	344.7	350.2	355.5	360.9	366.4	369.5
115°	382.4	384.2	385.9	387.7	389.5	392.7	397.4	401.9	406.6	411.2	414.7
117.5°	430.1	431.4	432.8	434.2	435.7	438.7	443.5	448.2	453.1	457.8	460.8
120°	461.8	462.9	463.9	464.9	466.0	468.6	472.8	476.9	481.1	485.3	488.5
122.5°	492.0	492.4	492.8	493.3	493.8	496.1	500.4	504.7	509.0	513.2	516.4
125°	534.5	534.9	535.5	535.9	536.3	538.2	541.7	545.1	548.5	551.9	555.3
127.5°	575.3	575.3	575.3	575.3	575.3	577.1	580.7	584.2	587.7	591.2	593.8
130°	601.2	601.2	601.2	601.2	601.2	602.6	605.5	608.2	611.1	613.9	616.7
132.5°	625.4	625.5	625.6	625.8	625.9	627.2	629.6	632.1	634.6	637.1	639.8
135°	661.1	660.9	660.8	660.6	660.5	661.2	662.9	664.5	666.2	667.8	670.5
137.5°	693.3	693.2	693.1	693.0	692.9	693.4	694.6	695.8	697.0	698.1	700.6
140°	714.3	714.5	714.5	714.7	714.9	715.1	715.6	716.1	716.5	717.0	719.4
142.5°	732.5	733.1	733.6	734.1	734.6	734.9	735.0	735.1	735.2	735.3	737.3
145°	761.4	761.7	762.0	762.3	762.6	762.8	762.8	762.8	762.8	762.8	763.8
147.5°	784.5	785.1	785.8	786.5	787.2	787.5	787.3	787.1	787.0	786.9	787.1
150°	801.1	801.6	802.0	802.5	802.9	803.1	802.9	802.8	802.6	802.5	802.5
152.5°	814.6	815.0	815.5	816.0	816.4	816.5	816.2	816.0	815.6	815.4	815.6
155°	834.1	834.2	834.4	834.6	834.7	834.6	834.1	833.6	833.2	832.8	833.4
157.5°	850.7	850.6	850.5	850.4	850.3	850.0	849.5	849.0	848.5	848.0	848.8
160°	860.4	859.9	859.5	859.0	858.6	858.2	858.2	858.0	857.8	857.6	858.6
162.5°	869.0	868.4	867.8	867.3	866.7	866.3	866.2	866.1	865.9	865.7	866.7
165°	879.9	879.2	878.4	877.6	876.9	876.5	876.5	876.5	876.5	876.5	877.7
167.5°	888.5	887.7	886.9	886.1	885.4	884.9	884.8	884.8	884.7	884.6	885.9
170°	893.4	892.4	891.6	890.6	889.8	889.4	889.5	889.7	889.8	890.0	891.1
172.5°	896.6	895.7	894.8	893.9	893.0	892.6	892.8	892.9	893.0	893.2	894.4
175°	900.1	899.1	898.3	897.4	896.5	896.1	896.3	896.4	896.6	896.7	898.0
177.5°	901.7	900.9	900.0	899.1	898.4	898.0	898.3	898.5	898.8	899.0	899.9
180°	900.1	900.1	900.1	900.1	900.1	900.1	900.1	900.1	900.1	900.1	900.1



TEST NUMBER: P332556-935

CATALOG NUMBER: S124DIP-S575D810U935-4F0-1E-UDD-D

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
0°	598.3	598.3	598.3	598.3	598.3	598.3	598.3	598.3
2.5°	596.2	597.0	597.9	598.2	598.1	598.0	597.9	597.8
5°	594.7	595.8	597.0	597.5	597.4	597.3	597.1	596.9
7.5°	591.5	592.8	594.2	594.8	594.6	594.4	594.3	594.2
10°	588.2	589.6	590.9	591.5	591.4	591.2	591.1	590.9
12.5°	583.8	585.0	586.2	586.8	586.8	586.7	586.7	586.7
15°	575.5	576.9	578.2	578.8	578.7	578.5	578.3	578.2
17.5°	565.5	566.9	568.3	568.9	568.8	568.7	568.5	568.4
20°	557.8	559.2	560.7	561.5	561.5	561.5	561.5	561.5
22.5°	548.6	550.1	551.6	552.5	552.7	552.9	553.2	553.5
25°	534.6	536.2	537.9	538.7	538.9	539.1	539.2	539.3
27.5°	518.8	520.3	521.9	522.7	522.9	523.1	523.2	523.4
30°	507.8	509.5	511.1	512.0	512.3	512.6	512.9	513.2
32.5°	496.5	498.3	500.2	501.3	501.6	501.9	502.2	502.5
35°	478.5	480.6	482.7	484.0	484.4	484.8	485.3	485.8
37.5°	459.9	461.9	464.1	465.4	465.8	466.3	466.7	467.3
40°	446.7	448.9	451.2	452.5	453.1	453.7	454.3	455.0
42.5°	433.8	436.2	438.7	440.1	440.7	441.1	441.6	442.0
45°	413.8	416.3	418.8	420.4	421.2	422.0	422.7	423.4
47.5°	392.6	395.3	397.9	399.6	400.5	401.4	402.3	403.2
50°	377.8	380.8	383.7	385.7	386.6	387.4	388.4	389.3
52.5°	362.8	365.8	368.8	370.7	371.6	372.5	373.3	374.3
55°	340.3	343.3	346.2	348.2	349.0	350.0	350.9	351.7
57.5°	316.6	320.2	323.7	325.9	326.7	327.5	328.4	329.2
60°	300.3	303.8	307.1	309.4	310.6	311.9	313.1	314.3
62.5°	284.2	287.7	291.1	293.3	294.5	295.8	297.0	298.2
65°	259.3	263.1	266.8	269.2	270.4	271.6	272.9	274.1
67.5°	235.0	238.8	242.5	245.0	246.2	247.3	248.5	249.6
70°	217.7	221.8	225.8	228.3	229.4	230.4	231.4	232.5
72.5°	201.4	205.3	209.2	211.7	212.9	214.0	215.2	216.4
75°	176.5	180.6	184.9	187.6	188.9	190.3	191.7	193.0
77.5°	153.3	157.6	161.8	164.6	166.0	167.5	168.8	170.3
80°	138.3	142.7	147.1	150.0	151.2	152.4	153.6	154.8
82.5°	123.5	128.0	132.7	135.6	136.9	138.2	139.5	140.9
85°	102.7	107.2	111.7	114.7	116.1	117.6	119.1	120.6
87.5°	88.5	93.0	97.5	100.4	101.8	103.1	104.5	105.9
90°	91.6	96.8	102.0	105.4	106.9	108.3	109.9	111.3
92.5°	87.6	92.6	97.8	100.9	102.2	103.4	104.7	106.0
95°	82.9	87.8	92.7	96.0	97.5	98.9	100.5	101.9
97.5°	79.9	83.9	87.9	90.6	92.0	93.4	94.9	96.3
100°	83.5	85.0	86.4	87.8	88.9	90.1	91.4	92.6
102.5°	143.9	120.4	96.8	85.7	86.9	88.0	89.2	90.4
105°	264.4	269.5	274.6	275.0	270.8	266.6	262.3	258.2
107.5°	310.8	315.2	319.5	322.4	324.1	325.7	327.4	329.1
110°	342.5	346.2	350.0	352.7	354.3	355.9	357.6	359.2





TEST NUMBER: P332556-935

CATALOG NUMBER: S124DIP-S575D810U935-4F0-1E-UDD-D

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	372.8	376.1	379.3	381.8	383.6	385.3	387.1	388.8
115°	418.4	421.9	425.5	427.7	428.9	429.9	430.9	432.0
117.5°	463.8	466.9	469.9	472.0	473.1	474.2	475.4	476.6
120°	491.8	495.1	498.3	500.5	501.4	502.2	503.2	504.0
122.5°	519.6	522.7	525.9	527.9	528.7	529.4	530.2	531.0
125°	558.5	561.8	565.1	567.2	568.3	569.3	570.3	571.4
127.5°	596.4	599.1	601.7	603.4	604.2	605.2	606.1	606.9
130°	619.6	622.4	625.3	627.1	628.0	628.9	629.7	630.7
132.5°	642.5	645.2	647.9	649.6	650.4	651.2	651.9	652.7
135°	673.1	675.8	678.6	680.4	681.7	682.9	684.1	685.2
137.5°	703.1	705.6	708.1	709.7	710.3	711.0	711.6	712.3
140°	721.7	724.1	726.5	728.1	729.0	730.0	730.8	731.7
142.5°	739.3	741.3	743.4	744.8	745.4	746.1	746.7	747.3
145°	764.8	765.9	766.9	767.9	768.8	769.6	770.6	771.5
147.5°	787.3	787.6	787.8	788.2	788.8	789.5	790.1	790.7
150°	802.5	802.5	802.5	802.5	802.7	802.8	803.0	803.1
152.5°	815.9	816.1	816.3	816.4	816.3	816.2	816.1	816.1
155°	834.0	834.6	835.2	835.3	834.7	834.3	833.9	833.4
157.5°	849.5	850.3	851.1	851.1	850.3	849.5	848.8	848.0
160°	859.5	860.4	861.3	861.3	860.4	859.5	858.6	857.6
162.5°	867.5	868.4	869.4	869.3	868.2	867.2	866.3	865.2
165°	878.9	880.1	881.3	881.2	879.9	878.6	877.2	875.8
167.5°	887.3	888.6	889.8	889.8	888.3	886.7	885.3	883.8
170°	892.3	893.5	894.8	894.6	893.1	891.7	890.1	888.6
172.5°	895.6	896.8	898.0	897.8	896.2	894.6	892.9	891.3
175°	899.4	900.8	902.1	901.9	900.1	898.3	896.5	894.7
177.5°	901.0	901.9	902.8	902.6	901.1	899.7	898.3	896.8
180°	900.1	900.1	900.1	900.1	900.1	900.1	900.1	900.1

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