

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: P332556-830

Luminaire Tested: **S124DIP-S575D810U830-4F0-1E-UDD-D**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P332556-830
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-S575D810U830-4F0-1E-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: 5283.4 lumens
Efficiency: N/A
Efficacy: 137.6 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

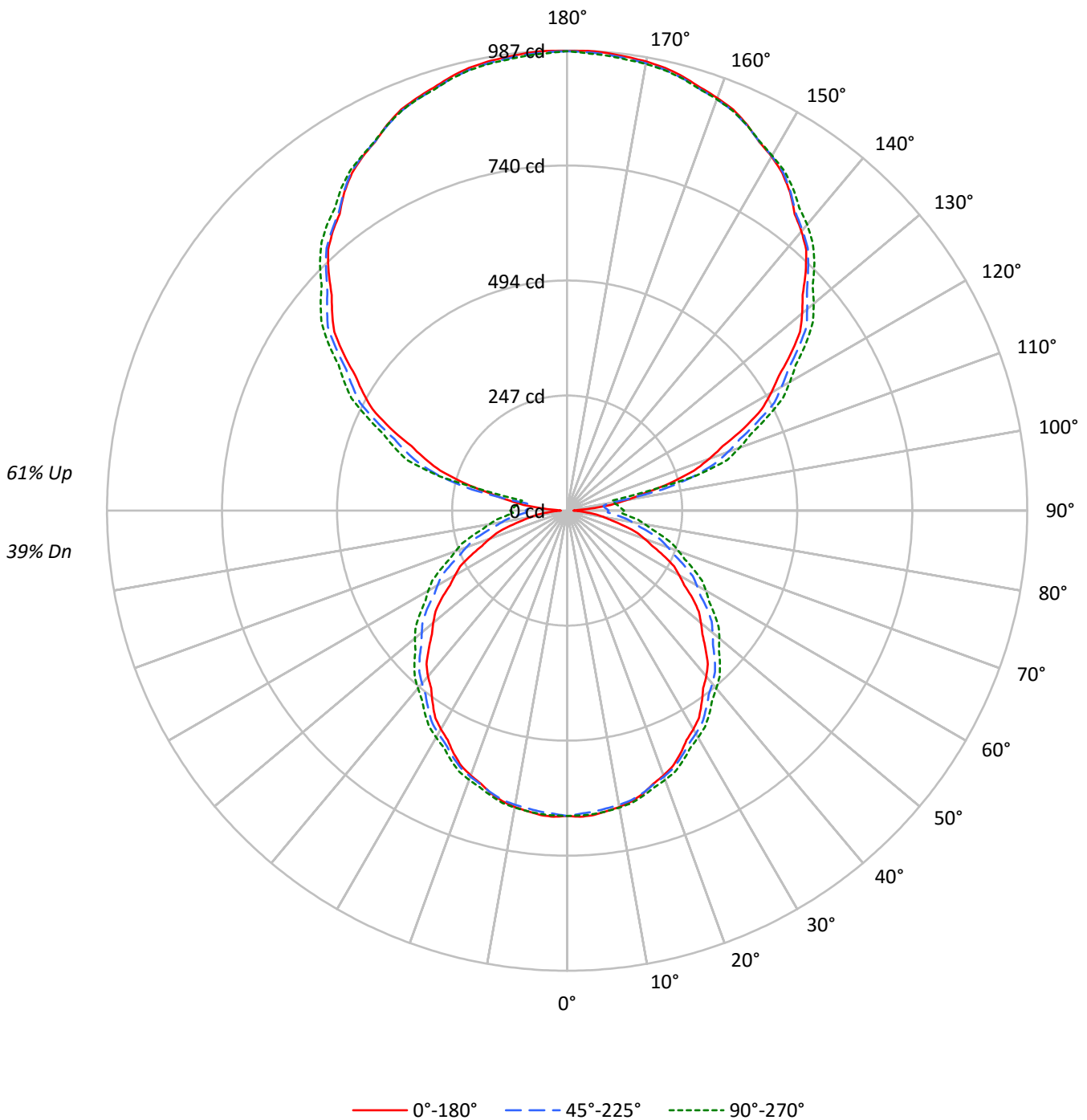
Input Watts (W): 38.4
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





TEST NUMBER: P332556-830

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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	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°	5288	5288	5288
5°	5304	5168	5182
10°	5272	5083	5079
15°	5225	4985	4958
20°	5153	4877	4840
25°	5073	4756	4710
30°	4986	4636	4576
35°	4887	4512	4460
40°	4809	4395	4338
45°	4692	4287	4233
50°	4593	4163	4123
55°	4491	4045	3993
60°	4332	3894	3876
65°	4156	3735	3731
70°	3945	3551	3561
75°	3649	3349	3408
80°	3322	3156	3259
85°	2903	2980	3172



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	62.0	1.2
10°-20°	177.7	3.4
20°-30°	268.7	5.1
30°-40°	325.1	6.2
40°-50°	343.7	6.5
50°-60°	323.5	6.1
60°-70°	268.4	5.1
70°-80°	188.5	3.6
80°-90°	109.4	2.1
90°-100°	97.0	1.8
100°-110°	261.7	5.0
110°-120°	442.5	8.4
120°-130°	539.5	10.2
130°-140°	565.9	10.7
140°-150°	523.6	9.9
150°-160°	421.0	8.0
160°-170°	271.5	5.1
170°-180°	93.6	1.8
0°-30°	508.4	9.6
0°-40°	833.5	15.8
0°-60°	1500.7	28.4
0°-90°	2067.0	39.1
90°-120°	801.2	15.2
90°-150°	2430.3	46.0
90°-180°	3216.0	60.9
0°-180°	5283.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	655	655	655	655	655	
5°	656	653	648	654	654	62
15°	629	629	627	633	633	177
25°	575	579	582	589	590	265
35°	503	512	519	529	532	315
45°	420	433	447	459	464	324
55°	329	344	366	380	385	293
65°	227	251	276	293	300	225
75°	126	153	184	204	211	134
85°	39	70	103	124	132	41
90°	14	51	89	114	122	10
95°	50	51	80	103	112	60
105°	228	248	278	301	283	240
115°	419	428	450	467	473	412
125°	585	588	604	620	626	522
135°	724	723	731	744	750	558
145°	834	835	835	840	844	521
155°	913	914	912	914	912	421
165°	963	960	960	965	959	272
175°	985	981	982	987	979	94
180°	985	985	985	985	985	



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CATALOG NUMBER: S124DIP-S575D810U830-4F0-1E-UDD-D

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	655.0	655.0	655.0	655.0	655.0	655.0	655.0	655.0	655.0	655.0	655.0
2.5°	657.3	657.0	656.6	656.1	655.7	655.1	654.0	653.0	651.9	650.8	651.8
5°	655.7	655.3	654.7	654.2	653.7	652.9	651.8	650.6	649.5	648.4	649.7
7.5°	650.2	649.8	649.5	649.2	648.9	648.4	647.4	646.5	645.5	644.5	646.0
10°	645.5	645.3	645.1	645.0	644.8	644.3	643.5	642.6	641.9	641.0	642.5
12.5°	638.9	638.9	638.9	638.9	638.9	638.6	638.0	637.4	636.9	636.3	637.6
15°	628.6	628.8	628.9	629.1	629.2	629.1	628.6	628.1	627.5	627.1	628.6
17.5°	614.3	614.8	615.3	615.8	616.3	616.5	616.4	616.3	616.2	616.1	617.6
20°	604.4	604.8	605.3	605.9	606.3	606.6	606.8	607.0	607.1	607.3	608.9
22.5°	593.2	593.8	594.5	595.0	595.7	596.2	596.4	596.7	597.0	597.3	599.0
25°	575.0	576.0	577.0	578.0	578.9	579.7	580.1	580.6	581.2	581.6	583.4
27.5°	554.8	556.2	557.6	559.1	560.5	561.6	562.3	563.1	563.8	564.6	566.3
30°	541.3	542.6	543.8	545.2	546.5	547.7	548.8	550.0	551.1	552.3	554.1
32.5°	526.6	528.2	529.7	531.3	532.9	534.3	535.6	536.9	538.1	539.4	541.4
35°	503.1	505.1	507.1	509.0	511.0	512.7	514.3	516.0	517.6	519.2	521.6
37.5°	479.6	481.7	484.0	486.3	488.5	490.7	492.7	494.7	496.7	498.7	501.1
40°	464.3	466.4	468.5	470.6	472.8	474.9	477.2	479.5	481.8	484.1	486.5
42.5°	446.7	449.0	451.4	453.8	456.2	458.7	461.4	464.0	466.7	469.4	472.1
45°	419.5	422.6	425.7	428.9	431.9	435.0	438.1	441.2	444.3	447.4	450.2
47.5°	393.6	396.7	399.9	403.1	406.3	409.7	413.3	416.9	420.5	424.0	427.0
50°	374.8	378.3	381.9	385.6	389.2	392.8	396.3	399.9	403.5	407.1	410.3
52.5°	356.0	359.6	363.2	366.7	370.3	374.2	378.3	382.4	386.5	390.6	393.9
55°	328.6	332.0	335.5	338.8	342.2	346.4	351.3	356.2	361.1	366.0	369.3
57.5°	297.9	302.2	306.4	310.7	314.9	319.4	324.2	329.1	334.0	338.8	342.7
60°	278.0	282.2	286.4	290.7	294.9	299.7	305.1	310.5	315.8	321.2	325.0
62.5°	258.6	263.3	267.9	272.5	277.1	282.1	287.5	292.8	298.3	303.7	307.4
65°	227.3	232.6	237.8	243.0	248.3	253.6	259.1	264.7	270.2	275.8	279.8
67.5°	197.3	202.8	208.4	214.0	219.4	225.2	231.1	237.0	243.0	248.9	253.1
70°	176.7	182.3	187.8	193.4	199.0	204.8	210.9	217.2	223.4	229.6	233.9
72.5°	156.8	162.5	168.1	173.8	179.5	185.6	192.2	198.8	205.4	212.0	216.2
75°	126.1	132.1	138.2	144.2	150.2	156.7	163.5	170.4	177.3	184.1	188.7
77.5°	97.6	104.0	110.4	116.7	123.1	129.9	137.0	144.2	151.4	158.5	163.2
80°	79.9	86.4	93.0	99.5	106.0	112.8	120.1	127.2	134.4	141.6	146.5
82.5°	62.3	69.1	75.9	82.7	89.4	96.4	103.6	110.7	117.9	125.2	130.2
85°	38.8	45.7	52.6	59.4	66.3	73.3	80.7	88.0	95.4	102.6	107.5
87.5°	22.1	29.1	36.2	43.2	50.2	57.4	64.8	72.2	79.6	87.0	91.9
90°	13.9	22.2	30.6	38.9	47.2	55.5	63.9	72.2	80.5	88.8	94.5
92.5°	20.5	26.4	32.3	38.4	44.3	51.5	59.8	68.1	76.4	84.7	90.3
95°	50.0	49.9	49.7	49.5	49.3	52.6	59.5	66.4	73.1	80.0	85.4
97.5°	94.7	102.8	110.9	119.0	127.1	125.4	113.7	102.1	90.4	78.7	83.1
100°	128.9	136.1	143.3	150.5	157.7	153.2	136.9	120.6	104.4	88.1	89.8
102.5°	167.9	173.7	179.6	185.5	191.3	196.0	199.3	202.5	205.8	209.1	183.3
105°	228.5	232.7	237.0	241.2	245.4	250.9	257.8	264.7	271.5	278.3	283.9
107.5°	285.9	289.1	292.3	295.4	298.6	303.6	310.4	317.2	324.0	330.8	335.5
110°	324.2	327.0	329.8	332.5	335.4	340.1	346.8	353.5	360.1	366.8	370.9



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	361.4	364.3	367.2	370.1	373.0	377.4	383.3	389.2	395.1	401.1	404.5
115°	418.6	420.6	422.4	424.4	426.4	429.9	435.0	440.0	445.1	450.2	454.0
117.5°	470.8	472.3	473.8	475.3	476.9	480.2	485.5	490.7	496.0	501.1	504.4
120°	505.6	506.7	507.8	509.0	510.1	512.9	517.6	522.1	526.7	531.2	534.8
122.5°	538.6	539.0	539.5	540.0	540.5	543.1	547.8	552.5	557.2	561.8	565.3
125°	585.1	585.6	586.2	586.6	587.1	589.2	593.0	596.7	600.5	604.2	607.8
127.5°	629.8	629.8	629.8	629.8	629.8	631.8	635.7	639.5	643.4	647.2	650.1
130°	658.1	658.1	658.1	658.1	658.1	659.7	662.8	665.8	668.9	672.0	675.1
132.5°	684.7	684.8	684.9	685.0	685.1	686.5	689.3	692.0	694.7	697.4	700.4
135°	723.7	723.5	723.4	723.2	723.0	723.9	725.7	727.5	729.2	731.0	734.0
137.5°	758.9	758.8	758.7	758.7	758.6	759.1	760.3	761.7	763.0	764.2	766.9
140°	781.9	782.1	782.2	782.4	782.6	782.9	783.3	783.9	784.4	784.9	787.5
142.5°	801.9	802.5	803.0	803.6	804.2	804.6	804.6	804.7	804.8	804.9	807.1
145°	833.5	833.9	834.2	834.5	834.8	835.0	835.0	835.0	835.0	835.0	836.1
147.5°	858.8	859.5	860.3	861.0	861.8	862.0	861.9	861.7	861.5	861.4	861.7
150°	876.9	877.5	878.0	878.4	878.9	879.1	878.9	878.8	878.6	878.4	878.4
152.5°	891.7	892.2	892.7	893.2	893.7	893.8	893.5	893.2	892.9	892.6	892.9
155°	913.1	913.2	913.4	913.6	913.8	913.6	913.1	912.6	912.1	911.6	912.3
157.5°	931.2	931.1	931.0	930.9	930.9	930.5	929.9	929.4	928.9	928.3	929.2
160°	941.9	941.3	940.8	940.4	939.9	939.5	939.4	939.2	939.1	938.9	939.9
162.5°	951.3	950.6	950.0	949.4	948.8	948.4	948.2	948.1	947.9	947.7	948.8
165°	963.2	962.4	961.6	960.7	960.0	959.5	959.5	959.5	959.5	959.5	960.8
167.5°	972.6	971.8	970.9	970.1	969.2	968.7	968.7	968.6	968.5	968.4	969.8
170°	978.0	976.9	976.0	975.0	974.0	973.6	973.7	973.9	974.1	974.3	975.5
172.5°	981.5	980.5	979.5	978.5	977.6	977.1	977.3	977.5	977.6	977.8	979.1
175°	985.3	984.3	983.4	982.4	981.4	981.0	981.2	981.3	981.5	981.7	983.1
177.5°	987.1	986.2	985.2	984.3	983.4	983.1	983.4	983.6	983.9	984.1	985.1
180°	985.3	985.3	985.3	985.3	985.3	985.3	985.3	985.3	985.3	985.3	985.3



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	655.0	655.0	655.0	655.0	655.0	655.0	655.0	655.0
2.5°	652.7	653.6	654.5	654.9	654.8	654.6	654.5	654.4
5°	651.0	652.2	653.6	654.1	654.0	653.8	653.7	653.5
7.5°	647.5	648.9	650.4	651.1	650.9	650.7	650.5	650.4
10°	643.9	645.5	646.9	647.5	647.4	647.2	647.1	646.9
12.5°	639.0	640.4	641.7	642.3	642.3	642.2	642.2	642.2
15°	630.0	631.5	632.9	633.6	633.5	633.3	633.1	632.9
17.5°	619.1	620.6	622.1	622.7	622.6	622.5	622.4	622.3
20°	610.6	612.2	613.8	614.6	614.6	614.6	614.6	614.6
22.5°	600.6	602.2	603.8	604.8	605.0	605.3	605.6	605.9
25°	585.2	587.0	588.8	589.7	589.9	590.1	590.2	590.4
27.5°	568.0	569.6	571.3	572.2	572.4	572.6	572.8	573.0
30°	555.9	557.7	559.5	560.5	560.8	561.2	561.5	561.8
32.5°	543.5	545.5	547.6	548.7	549.1	549.4	549.8	550.1
35°	523.9	526.1	528.4	529.8	530.3	530.7	531.2	531.8
37.5°	503.4	505.7	508.0	509.4	509.9	510.5	511.0	511.5
40°	489.0	491.4	493.9	495.4	496.1	496.7	497.4	498.0
42.5°	474.9	477.5	480.2	481.8	482.4	482.9	483.4	483.9
45°	453.0	455.7	458.5	460.2	461.1	461.9	462.7	463.5
47.5°	429.8	432.7	435.5	437.4	438.5	439.4	440.5	441.4
50°	413.6	416.9	420.1	422.3	423.2	424.1	425.2	426.1
52.5°	397.2	400.4	403.7	405.8	406.8	407.7	408.7	409.7
55°	372.5	375.8	379.0	381.2	382.1	383.1	384.1	385.0
57.5°	346.6	350.5	354.4	356.8	357.7	358.5	359.5	360.4
60°	328.8	332.5	336.2	338.7	340.1	341.4	342.7	344.0
62.5°	311.1	314.9	318.7	321.1	322.4	323.8	325.1	326.4
65°	283.9	288.0	292.1	294.7	296.1	297.4	298.7	300.0
67.5°	257.2	261.4	265.5	268.2	269.5	270.7	272.0	273.2
70°	238.4	242.8	247.1	250.0	251.1	252.2	253.4	254.5
72.5°	220.5	224.8	229.0	231.8	233.1	234.3	235.6	236.9
75°	193.2	197.7	202.4	205.4	206.8	208.3	209.8	211.2
77.5°	167.9	172.5	177.1	180.2	181.7	183.3	184.8	186.4
80°	151.4	156.2	161.1	164.2	165.5	166.8	168.1	169.5
82.5°	135.2	140.2	145.2	148.5	149.9	151.3	152.7	154.2
85°	112.4	117.3	122.2	125.5	127.1	128.8	130.4	132.1
87.5°	96.9	101.8	106.7	109.9	111.4	112.9	114.4	115.9
90°	100.3	105.9	111.7	115.4	117.0	118.6	120.3	121.9
92.5°	95.9	101.4	107.1	110.5	111.9	113.2	114.6	116.0
95°	90.8	96.1	101.5	105.1	106.7	108.3	110.0	111.6
97.5°	87.5	91.8	96.2	99.2	100.8	102.3	103.9	105.4
100°	91.4	93.0	94.6	96.1	97.4	98.7	100.0	101.3
102.5°	157.5	131.8	105.9	93.8	95.1	96.3	97.6	99.0
105°	289.5	295.0	300.6	301.0	296.4	291.8	287.2	282.7
107.5°	340.3	345.1	349.8	353.0	354.8	356.6	358.4	360.2
110°	374.9	379.0	383.1	386.1	387.9	389.6	391.4	393.2



TEST NUMBER: P332556-830

CATALOG NUMBER: S124DIP-S575D810U830-4F0-1E-UDD-D

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	408.1	411.7	415.2	417.9	419.9	421.8	423.8	425.7
115°	458.0	461.8	465.8	468.3	469.5	470.6	471.7	472.9
117.5°	507.7	511.1	514.4	516.7	517.9	519.2	520.5	521.7
120°	538.4	542.0	545.5	547.9	548.8	549.8	550.8	551.8
122.5°	568.8	572.2	575.7	577.9	578.7	579.6	580.4	581.3
125°	611.4	615.0	618.6	620.9	622.1	623.2	624.3	625.5
127.5°	652.9	655.8	658.6	660.5	661.5	662.5	663.5	664.4
130°	678.3	681.4	684.5	686.5	687.5	688.4	689.4	690.4
132.5°	703.3	706.3	709.3	711.1	712.0	712.8	713.7	714.5
135°	736.9	739.8	742.8	744.9	746.2	747.5	748.9	750.1
137.5°	769.7	772.4	775.1	776.9	777.6	778.4	779.0	779.8
140°	790.0	792.7	795.3	797.1	798.1	799.1	800.0	801.0
142.5°	809.4	811.5	813.8	815.3	816.0	816.7	817.4	818.1
145°	837.3	838.4	839.5	840.7	841.6	842.5	843.6	844.5
147.5°	861.9	862.1	862.4	862.9	863.6	864.2	865.0	865.6
150°	878.4	878.4	878.4	878.5	878.7	878.8	879.0	879.2
152.5°	893.2	893.4	893.6	893.7	893.6	893.5	893.4	893.3
155°	912.9	913.6	914.3	914.4	913.8	913.3	912.9	912.4
157.5°	930.0	930.9	931.7	931.7	930.9	930.0	929.2	928.3
160°	940.8	941.9	942.8	942.8	941.9	940.8	939.9	938.9
162.5°	949.7	950.6	951.7	951.6	950.5	949.3	948.3	947.2
165°	962.1	963.5	964.8	964.7	963.2	961.8	960.3	958.8
167.5°	971.3	972.7	974.1	974.0	972.4	970.7	969.1	967.5
170°	976.9	978.2	979.5	979.3	977.7	976.1	974.4	972.8
172.5°	980.4	981.8	983.1	982.8	981.1	979.3	977.5	975.7
175°	984.6	986.1	987.5	987.3	985.3	983.4	981.4	979.4
177.5°	986.3	987.3	988.4	988.1	986.5	985.0	983.4	981.8
180°	985.3	985.3	985.3	985.3	985.3	985.3	985.3	985.3

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