

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: P332556-940

Luminaire Tested: **S124DIP-S575D810U940-4F0-1E-UDD-D**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P332556-940
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-S575D810U940-4F0-1E-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: 4998.5 lumens
Efficiency: N/A
Efficacy: 130.2 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

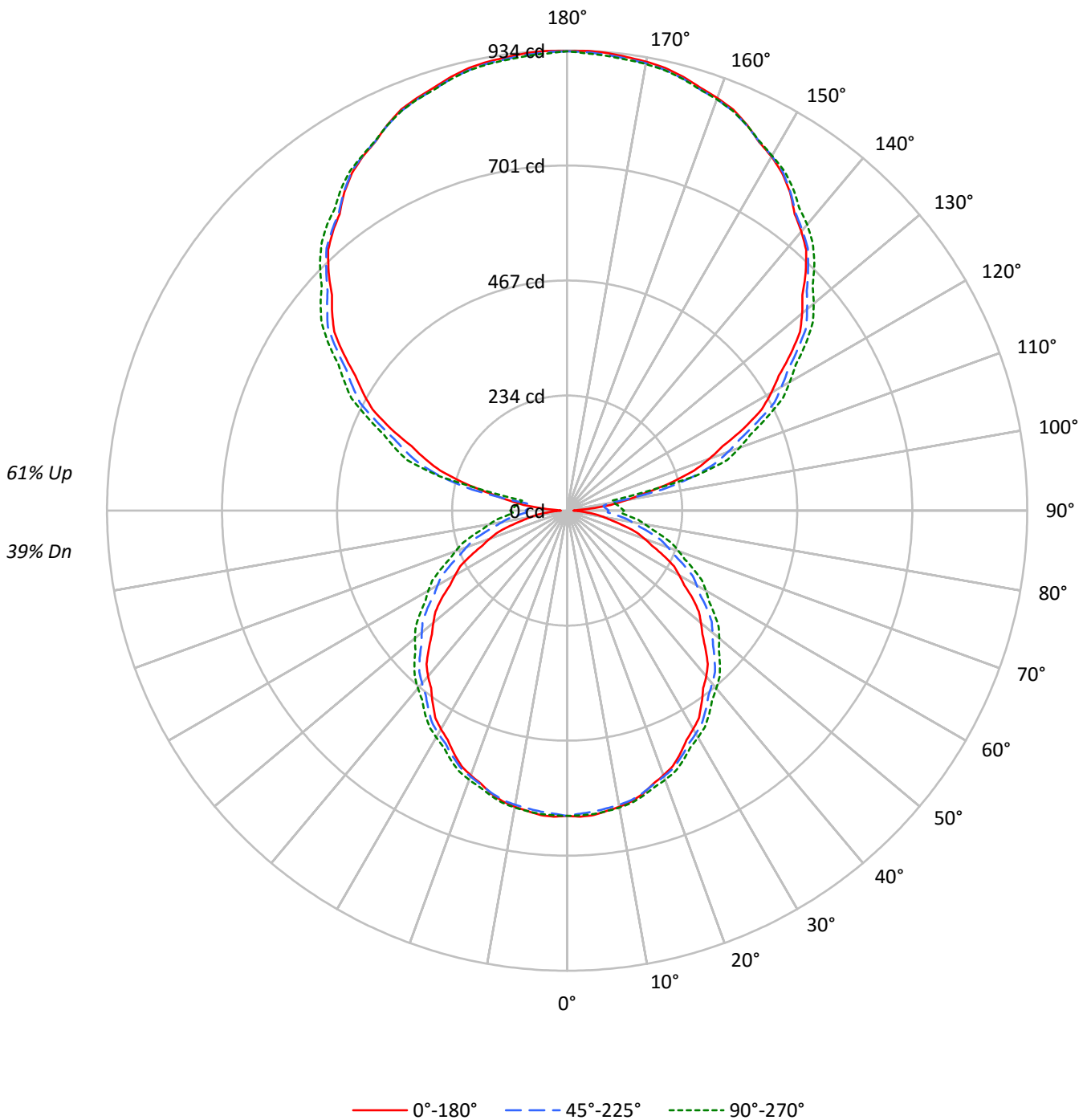
Input Watts (W): 38.4
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P332556-940

CATALOG NUMBER: S124DIP-S575D810U940-4F0-1E-UDD-D

Luminous Intensity Polar Plot





TEST NUMBER: P332556-940

CATALOG NUMBER: S124DIP-S575D810U940-4F0-1E-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°	5002	5002	5002
5°	5018	4889	4903
10°	4987	4809	4805
15°	4943	4717	4690
20°	4875	4614	4579
25°	4799	4500	4456
30°	4717	4386	4330
35°	4624	4269	4220
40°	4550	4158	4105
45°	4439	4056	4005
50°	4344	3938	3901
55°	4249	3827	3778
60°	4098	3685	3667
65°	3933	3533	3529
70°	3733	3359	3369
75°	3453	3169	3224
80°	3143	2984	3082
85°	2746	2820	2999



TEST NUMBER: P332556-940

CATALOG NUMBER: S124DIP-S575D810U940-4F0-1E-UDD-D

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	58.7	1.2
10°-20°	168.1	3.4
20°-30°	254.2	5.1
30°-40°	307.6	6.2
40°-50°	325.2	6.5
50°-60°	306.0	6.1
60°-70°	253.9	5.1
70°-80°	178.3	3.6
80°-90°	103.5	2.1
90°-100°	91.8	1.8
100°-110°	247.6	5.0
110°-120°	418.6	8.4
120°-130°	510.4	10.2
130°-140°	535.4	10.7
140°-150°	495.4	9.9
150°-160°	398.3	8.0
160°-170°	256.9	5.1
170°-180°	88.5	1.8
0°-30°	481.0	9.6
0°-40°	788.6	15.8
0°-60°	1419.8	28.4
0°-90°	1955.5	39.1
90°-120°	758.0	15.2
90°-150°	2299.2	46.0
90°-180°	3043.0	60.9
0°-180°	4998.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	620	620	620	620	620	
5°	620	618	613	619	618	59
15°	595	595	593	599	599	167
25°	544	548	550	558	559	250
35°	476	484	491	501	503	298
45°	397	410	423	435	438	307
55°	311	326	346	360	364	277
65°	215	237	261	278	284	213
75°	119	145	174	193	200	127
85°	37	66	97	117	125	39
90°	13	49	84	107	115	9
95°	47	48	76	98	106	56
105°	216	235	263	285	267	227
115°	396	405	426	442	447	390
125°	554	556	572	586	592	494
135°	685	684	692	704	710	528
145°	788	790	790	795	799	493
155°	864	864	862	865	863	398
165°	911	908	908	913	907	257
175°	932	928	929	934	927	89
180°	932	932	932	932	932	



TEST NUMBER: P332556-940

CATALOG NUMBER: S124DIP-S575D810U940-4F0-1E-UDD-D

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	619.6	619.6	619.6	619.6	619.6	619.6	619.6	619.6	619.6	619.6	619.6
2.5°	621.9	621.5	621.2	620.7	620.4	619.7	618.8	617.8	616.7	615.7	616.6
5°	620.4	619.9	619.4	618.9	618.5	617.7	616.6	615.5	614.5	613.4	614.7
7.5°	615.1	614.7	614.5	614.2	613.9	613.4	612.5	611.6	610.6	609.8	611.2
10°	610.6	610.5	610.3	610.2	610.0	609.6	608.8	608.0	607.3	606.5	607.9
12.5°	604.5	604.5	604.5	604.4	604.4	604.1	603.6	603.1	602.5	602.0	603.2
15°	594.7	594.9	594.9	595.1	595.3	595.1	594.7	594.2	593.7	593.3	594.7
17.5°	581.2	581.7	582.1	582.6	583.1	583.3	583.2	583.1	583.0	582.9	584.2
20°	571.8	572.2	572.7	573.2	573.6	573.9	574.1	574.3	574.4	574.5	576.0
22.5°	561.2	561.8	562.4	562.9	563.6	564.0	564.3	564.5	564.8	565.1	566.7
25°	544.0	544.9	545.9	546.8	547.7	548.4	548.8	549.3	549.8	550.3	552.0
27.5°	524.9	526.2	527.5	529.0	530.3	531.3	532.0	532.7	533.4	534.1	535.7
30°	512.1	513.4	514.5	515.8	517.0	518.2	519.2	520.3	521.4	522.5	524.2
32.5°	498.2	499.7	501.1	502.7	504.2	505.5	506.7	507.9	509.1	510.3	512.2
35°	476.0	477.9	479.7	481.5	483.4	485.1	486.6	488.2	489.7	491.2	493.5
37.5°	453.7	455.8	457.9	460.0	462.2	464.2	466.1	468.1	469.9	471.8	474.0
40°	439.3	441.2	443.3	445.2	447.3	449.3	451.5	453.6	455.8	458.0	460.3
42.5°	422.6	424.8	427.0	429.4	431.6	434.0	436.5	439.0	441.6	444.1	446.7
45°	396.9	399.8	402.8	405.7	408.6	411.5	414.5	417.4	420.4	423.3	425.9
47.5°	372.4	375.3	378.4	381.4	384.4	387.6	391.0	394.4	397.8	401.2	403.9
50°	354.5	357.9	361.3	364.8	368.2	371.6	375.0	378.4	381.7	385.1	388.2
52.5°	336.8	340.2	343.6	347.0	350.4	354.0	357.9	361.8	365.7	369.5	372.6
55°	310.9	314.1	317.4	320.6	323.8	327.7	332.3	337.0	341.6	346.3	349.4
57.5°	281.9	285.9	289.9	293.9	297.9	302.2	306.7	311.4	316.0	320.6	324.2
60°	263.0	267.0	271.0	275.0	279.0	283.6	288.6	293.7	298.8	303.9	307.5
62.5°	244.7	249.1	253.4	257.8	262.2	266.9	272.0	277.1	282.2	287.3	290.8
65°	215.1	220.1	225.0	229.9	234.9	240.0	245.1	250.4	255.7	260.9	264.7
67.5°	186.6	191.9	197.2	202.4	207.6	213.0	218.6	224.3	229.9	235.5	239.4
70°	167.2	172.5	177.7	183.0	188.2	193.8	199.6	205.5	211.3	217.2	221.3
72.5°	148.4	153.7	159.1	164.4	169.8	175.6	181.8	188.1	194.3	200.5	204.6
75°	119.3	125.0	130.7	136.4	142.1	148.3	154.7	161.2	167.7	174.2	178.5
77.5°	92.3	98.4	104.4	110.4	116.5	122.9	129.7	136.4	143.2	150.0	154.4
80°	75.6	81.8	88.0	94.2	100.3	106.7	113.6	120.4	127.2	133.9	138.6
82.5°	58.9	65.4	71.8	78.2	84.6	91.2	98.0	104.8	111.6	118.4	123.1
85°	36.7	43.2	49.8	56.2	62.7	69.4	76.3	83.3	90.2	97.1	101.7
87.5°	21.0	27.6	34.2	40.8	47.5	54.3	61.3	68.3	75.3	82.3	86.9
90°	13.2	21.0	29.0	36.8	44.7	52.5	60.5	68.3	76.2	84.0	89.4
92.5°	19.4	25.0	30.6	36.3	41.9	48.7	56.5	64.4	72.3	80.2	85.4
95°	47.3	47.2	47.0	46.8	46.6	49.8	56.3	62.8	69.2	75.7	80.8
97.5°	89.6	97.3	105.0	112.6	120.3	118.6	107.5	96.6	85.5	74.5	78.6
100°	122.0	128.8	135.5	142.4	149.2	144.9	129.5	114.1	98.8	83.4	85.0
102.5°	158.8	164.3	169.9	175.5	181.0	185.4	188.5	191.5	194.7	197.8	173.4
105°	216.2	220.2	224.2	228.2	232.2	237.4	243.9	250.4	256.8	263.3	268.6
107.5°	270.5	273.5	276.5	279.5	282.5	287.2	293.6	300.1	306.6	313.0	317.4
110°	306.7	309.3	312.0	314.6	317.3	321.7	328.1	334.4	340.7	347.1	350.9



TEST NUMBER: P332556-940

CATALOG NUMBER: S124DIP-S575D810U940-4F0-1E-UDD-D

CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	341.9	344.6	347.4	350.2	352.8	357.0	362.7	368.2	373.8	379.4	382.7
115°	396.0	397.9	399.7	401.5	403.4	406.7	411.5	416.3	421.1	425.9	429.5
117.5°	445.4	446.8	448.3	449.7	451.2	454.3	459.3	464.2	469.2	474.1	477.2
120°	478.3	479.4	480.5	481.5	482.6	485.3	489.6	493.9	498.3	502.6	506.0
122.5°	509.5	510.0	510.4	510.9	511.4	513.8	518.3	522.7	527.2	531.5	534.8
125°	553.6	554.0	554.6	555.0	555.4	557.4	561.0	564.5	568.1	571.6	575.1
127.5°	595.8	595.8	595.8	595.8	595.8	597.7	601.4	605.0	608.7	612.3	615.0
130°	622.6	622.6	622.6	622.6	622.6	624.1	627.1	629.9	632.8	635.8	638.7
132.5°	647.7	647.8	647.9	648.1	648.2	649.5	652.1	654.7	657.3	659.8	662.6
135°	684.7	684.5	684.4	684.2	684.0	684.8	686.5	688.2	689.9	691.6	694.4
137.5°	718.0	717.9	717.8	717.7	717.6	718.2	719.3	720.6	721.8	723.0	725.6
140°	739.8	739.9	740.0	740.2	740.4	740.7	741.1	741.6	742.1	742.5	745.0
142.5°	758.7	759.2	759.7	760.3	760.8	761.2	761.3	761.3	761.4	761.5	763.6
145°	788.5	788.9	789.2	789.5	789.8	790.0	790.0	790.0	790.0	790.0	791.0
147.5°	812.4	813.2	813.9	814.6	815.3	815.6	815.4	815.2	815.0	814.9	815.2
150°	829.6	830.2	830.6	831.1	831.5	831.7	831.5	831.4	831.3	831.1	831.1
152.5°	843.6	844.1	844.5	845.1	845.5	845.6	845.3	845.1	844.7	844.5	844.7
155°	863.9	864.0	864.2	864.3	864.5	864.3	863.9	863.4	862.9	862.5	863.1
157.5°	881.0	880.9	880.8	880.7	880.7	880.3	879.8	879.3	878.8	878.2	879.0
160°	891.1	890.6	890.1	889.7	889.2	888.9	888.8	888.6	888.4	888.2	889.2
162.5°	900.0	899.4	898.8	898.2	897.6	897.2	897.1	897.0	896.8	896.6	897.6
165°	911.2	910.5	909.7	908.9	908.2	907.8	907.8	907.8	907.8	907.8	909.0
167.5°	920.2	919.4	918.6	917.7	916.9	916.5	916.4	916.3	916.2	916.1	917.5
170°	925.2	924.3	923.4	922.4	921.5	921.1	921.2	921.4	921.6	921.8	922.9
172.5°	928.5	927.6	926.7	925.8	924.9	924.4	924.6	924.8	924.9	925.1	926.3
175°	932.2	931.2	930.3	929.4	928.4	928.1	928.3	928.4	928.5	928.7	930.1
177.5°	933.9	933.0	932.1	931.2	930.4	930.1	930.3	930.6	930.9	931.0	932.0
180°	932.2	932.2	932.2	932.2	932.2	932.2	932.2	932.2	932.2	932.2	932.2



TEST NUMBER: P332556-940

CATALOG NUMBER: S124DIP-S575D810U940-4F0-1E-UDD-D

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	619.6	619.6	619.6	619.6	619.6	619.6	619.6	619.6
2.5°	617.5	618.3	619.2	619.6	619.5	619.3	619.2	619.1
5°	615.9	617.1	618.3	618.8	618.8	618.6	618.4	618.2
7.5°	612.6	613.9	615.4	616.0	615.8	615.6	615.5	615.4
10°	609.2	610.6	612.0	612.6	612.5	612.3	612.2	612.0
12.5°	604.6	605.8	607.1	607.7	607.7	607.6	607.6	607.6
15°	596.0	597.4	598.8	599.4	599.3	599.1	599.0	598.8
17.5°	585.7	587.1	588.5	589.2	589.1	589.0	588.8	588.7
20°	577.7	579.2	580.7	581.5	581.5	581.5	581.5	581.5
22.5°	568.2	569.7	571.2	572.2	572.4	572.7	572.9	573.2
25°	553.7	555.4	557.1	557.9	558.1	558.3	558.4	558.6
27.5°	537.3	538.9	540.5	541.4	541.5	541.7	541.9	542.1
30°	525.9	527.6	529.3	530.3	530.6	530.9	531.2	531.5
32.5°	514.2	516.1	518.1	519.2	519.5	519.8	520.1	520.4
35°	495.6	497.8	499.9	501.2	501.7	502.1	502.6	503.1
37.5°	476.3	478.4	480.6	482.0	482.4	483.0	483.4	483.9
40°	462.6	464.9	467.3	468.7	469.3	469.9	470.6	471.2
42.5°	449.2	451.7	454.3	455.8	456.4	456.8	457.4	457.8
45°	428.6	431.1	433.7	435.4	436.2	437.0	437.7	438.5
47.5°	406.6	409.4	412.1	413.8	414.8	415.7	416.7	417.6
50°	391.3	394.4	397.4	399.5	400.4	401.3	402.3	403.1
52.5°	375.8	378.8	381.9	383.9	384.9	385.8	386.6	387.6
55°	352.4	355.5	358.6	360.6	361.5	362.5	363.4	364.3
57.5°	327.9	331.6	335.3	337.5	338.4	339.2	340.1	341.0
60°	311.0	314.6	318.1	320.5	321.7	323.0	324.2	325.5
62.5°	294.4	297.9	301.5	303.8	305.1	306.3	307.6	308.8
65°	268.6	272.5	276.3	278.8	280.1	281.3	282.6	283.8
67.5°	243.3	247.3	251.2	253.7	254.9	256.1	257.3	258.5
70°	225.5	229.7	233.8	236.5	237.6	238.6	239.7	240.8
72.5°	208.6	212.7	216.7	219.3	220.5	221.7	222.9	224.1
75°	182.8	187.1	191.5	194.3	195.6	197.1	198.5	199.8
77.5°	158.8	163.2	167.6	170.5	171.9	173.4	174.9	176.4
80°	143.2	147.8	152.4	155.3	156.6	157.8	159.1	160.3
82.5°	127.9	132.6	137.4	140.4	141.8	143.1	144.5	145.9
85°	106.4	111.0	115.7	118.8	120.3	121.8	123.3	124.9
87.5°	91.7	96.3	100.9	104.0	105.4	106.8	108.3	109.7
90°	94.9	100.2	105.7	109.1	110.7	112.2	113.8	115.3
92.5°	90.7	95.9	101.3	104.5	105.8	107.1	108.4	109.8
95°	85.9	91.0	96.0	99.4	100.9	102.5	104.1	105.6
97.5°	82.8	86.9	91.0	93.8	95.3	96.8	98.3	99.7
100°	86.5	88.0	89.5	91.0	92.1	93.4	94.6	95.9
102.5°	149.0	124.7	100.2	88.7	90.0	91.1	92.4	93.6
105°	273.8	279.1	284.4	284.8	280.4	276.1	271.7	267.4
107.5°	321.9	326.5	330.9	333.9	335.6	337.3	339.1	340.8
110°	354.7	358.6	362.5	365.2	366.9	368.6	370.3	372.0



TEST NUMBER: P332556-940

CATALOG NUMBER: S124DIP-S575D810U940-4F0-1E-UDD-D

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	386.1	389.5	392.8	395.4	397.3	399.0	400.9	402.7
115°	433.3	436.9	440.7	443.0	444.2	445.2	446.3	447.4
117.5°	480.4	483.6	486.7	488.8	490.0	491.2	492.4	493.6
120°	509.3	512.7	516.1	518.4	519.2	520.1	521.1	522.0
122.5°	538.1	541.4	544.7	546.7	547.5	548.3	549.1	549.9
125°	578.5	581.8	585.2	587.5	588.5	589.6	590.7	591.7
127.5°	617.7	620.5	623.1	624.9	625.8	626.8	627.7	628.6
130°	641.7	644.6	647.6	649.4	650.4	651.3	652.2	653.2
132.5°	665.4	668.2	671.0	672.8	673.6	674.4	675.2	676.0
135°	697.1	699.9	702.8	704.7	706.0	707.2	708.5	709.6
137.5°	728.2	730.8	733.3	735.0	735.7	736.4	737.0	737.7
140°	747.4	749.9	752.4	754.1	755.0	756.0	756.9	757.8
142.5°	765.7	767.8	769.9	771.3	772.0	772.7	773.3	774.0
145°	792.1	793.2	794.2	795.3	796.2	797.1	798.1	799.0
147.5°	815.4	815.6	815.9	816.4	817.0	817.6	818.3	818.9
150°	831.1	831.1	831.1	831.2	831.3	831.4	831.6	831.8
152.5°	845.0	845.3	845.4	845.5	845.4	845.3	845.3	845.2
155°	863.7	864.3	865.0	865.0	864.5	864.1	863.6	863.2
157.5°	879.9	880.7	881.5	881.5	880.7	879.9	879.0	878.2
160°	890.1	891.1	892.0	892.0	891.1	890.1	889.2	888.2
162.5°	898.5	899.4	900.4	900.3	899.2	898.1	897.2	896.1
165°	910.3	911.5	912.8	912.7	911.2	909.9	908.5	907.0
167.5°	918.9	920.2	921.6	921.5	920.0	918.4	916.9	915.3
170°	924.2	925.4	926.7	926.5	925.0	923.5	921.9	920.3
172.5°	927.6	928.8	930.1	929.8	928.2	926.5	924.8	923.1
175°	931.5	932.9	934.2	934.1	932.2	930.3	928.4	926.6
177.5°	933.1	934.1	935.0	934.8	933.3	931.8	930.3	928.8
180°	932.2	932.2	932.2	932.2	932.2	932.2	932.2	932.2

(END OF REPORT)