

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: P332256

Luminaire Tested: **S123RDIP-S340D805U835-4F0-1E-UDD-F1**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P332256
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-9,
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S123RDIP-S340D805U835-4F0-1E-UDD-F1
Description: DEFINE 3 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 340 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER, REGRESSED
HOUSING
UPLIGHT 805 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4058.4 lumens
Efficiency: N/A
Efficacy: 130.1 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.06 / 1.22
Luminous Opening: Rectangular (W 0.25' x L: 4' x H: 0')
CIE Type: Semi-Indirect

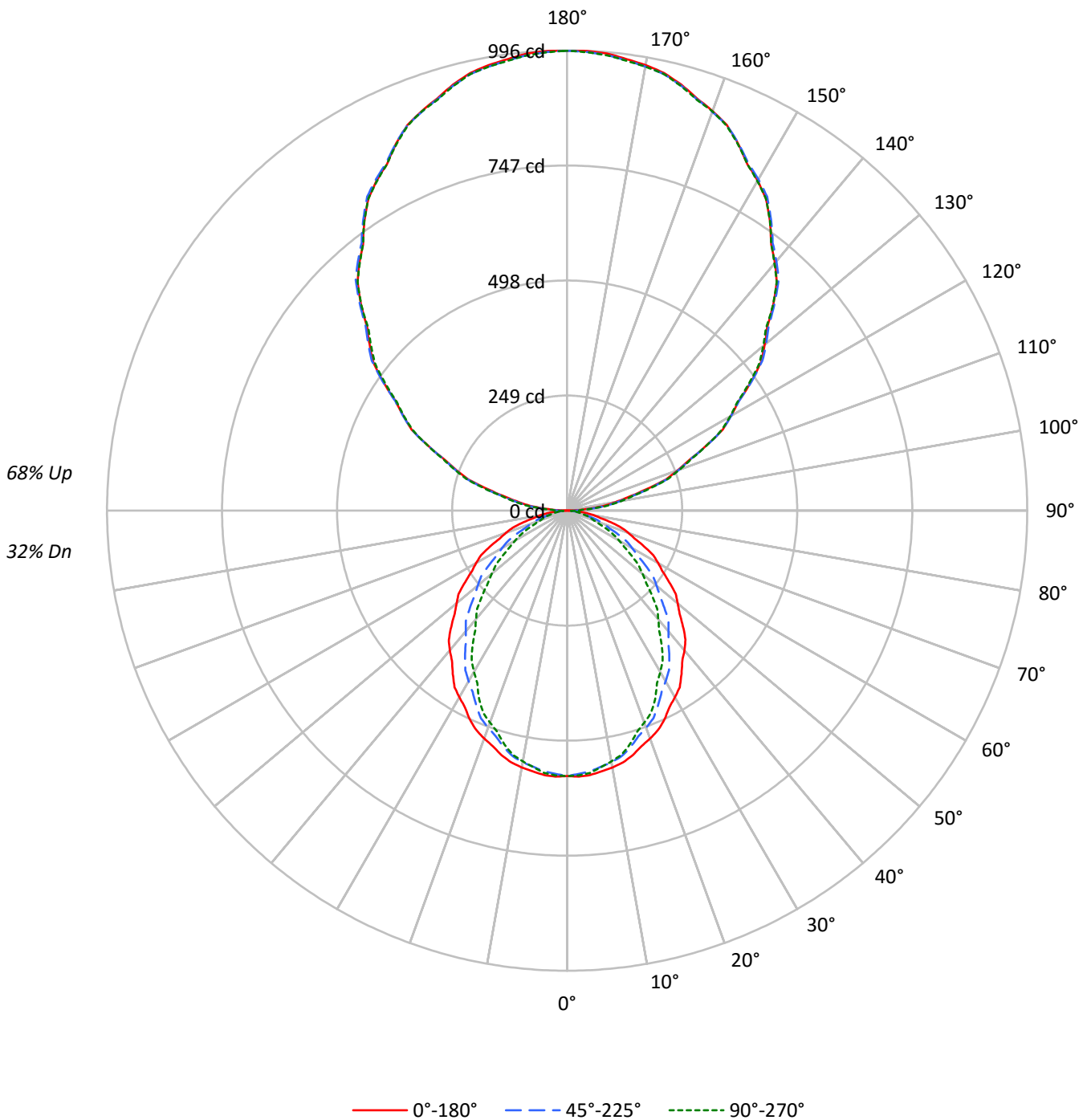
Input Watts (W): 31.2
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P332256

CATALOG NUMBER: S123RDIP-S340D805U835-4F0-1E-UDD-F1

Luminous Intensity Polar Plot





TEST NUMBER: P332256

CATALOG NUMBER: S123RDIP-S340D805U835-4F0-1E-UDD-F1

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	103	103	103	103	93	93	93	93	73	73	73	56	56	56	40	40	40	32
1	94	90	86	83	84	81	78	75	64	62	60	49	48	47	35	35	34	27
2	86	79	73	68	77	71	66	62	57	53	50	44	41	39	31	30	29	23
3	78	69	62	57	70	63	57	52	50	46	42	39	36	33	28	26	25	20
4	72	61	54	48	64	56	49	44	45	40	36	34	31	29	25	23	21	17
5	66	55	47	41	59	49	43	38	40	35	31	31	28	25	23	20	19	15
6	60	49	41	36	54	44	38	33	36	31	27	28	25	22	21	18	17	13
7	56	44	36	31	50	40	33	29	33	28	24	25	22	19	19	16	15	12
8	52	40	33	27	47	36	30	25	30	25	21	23	20	17	17	15	13	11
9	48	36	29	24	43	33	27	23	27	22	19	21	18	15	16	14	12	10
10	45	33	26	22	40	30	24	20	25	20	17	20	16	14	15	13	11	9

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	6184	6184	6184
5°	6207	6122	6158
10°	6172	6045	6025
15°	6107	5904	5841
20°	6015	5727	5593
25°	5922	5529	5352
30°	5797	5299	5009
35°	5670	5070	4696
40°	5552	4799	4308
45°	5398	4532	3958
50°	5228	4228	3565
55°	5054	3883	3200
60°	4895	3511	2799
65°	4689	3110	2397
70°	4428	2609	1936
75°	4051	2054	1822
80°	3608	1822	1674
85°	3051	1606	1494



TEST NUMBER: P332256

CATALOG NUMBER: S123RDIP-S340D805U835-4F0-1E-UDD-F1

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	54.0	1.3
10°-20°	150.1	3.7
20°-30°	216.1	5.3
30°-40°	243.5	6.0
40°-50°	232.9	5.7
50°-60°	190.7	4.7
60°-70°	128.7	3.2
70°-80°	64.7	1.6
80°-90°	20.1	0.5
90°-100°	64.8	1.6
100°-110°	194.1	4.8
110°-120°	330.1	8.1
120°-130°	434.2	10.7
130°-140°	488.0	12.0
140°-150°	479.7	11.8
150°-160°	403.8	10.0
160°-170°	268.8	6.6
170°-180°	94.1	2.3
0°-30°	420.2	10.4
0°-40°	663.7	16.4
0°-60°	1087.3	26.8
0°-90°	1300.8	32.1
90°-120°	589.0	14.5
90°-150°	1990.8	49.1
90°-180°	2758.0	68.0
0°-180°	4058.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	574	574	574	574	574	
5°	574	572	567	570	570	54
15°	548	542	530	527	524	154
25°	499	486	466	456	451	229
35°	432	414	386	366	357	270
45°	355	333	298	272	260	273
55°	269	246	207	181	170	241
65°	184	158	122	100	94	182
75°	97	75	49	45	44	104
85°	25	15	13	12	12	28
90°	1	9	19	22	24	4
95°	46	52	58	61	61	52
105°	176	178	184	185	186	188
115°	332	334	333	334	333	329
125°	486	488	487	484	481	434
135°	631	635	635	632	630	486
145°	765	767	769	768	765	478
155°	876	876	877	880	875	403
165°	955	952	952	956	952	269
175°	993	990	990	994	989	94
180°	995	995	995	995	995	



TEST NUMBER: P332256

CATALOG NUMBER: S123RDIP-S340D805U835-4F0-1E-UDD-F1

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	574.5	574.5	574.5	574.5	574.5	574.5	574.5	574.5	574.5	574.5	574.5
2.5°	576.4	576.0	575.7	575.4	575.1	574.4	573.4	572.4	571.4	570.4	571.3
5°	574.5	574.0	573.5	573.0	572.4	571.6	570.3	569.1	567.8	566.6	567.5
7.5°	569.2	568.6	568.1	567.5	567.0	565.9	564.3	562.7	561.0	559.4	559.9
10°	564.7	564.0	563.3	562.6	561.8	560.5	558.7	556.8	554.9	553.1	553.2
12.5°	558.4	557.6	556.8	556.0	555.2	553.6	551.3	549.1	546.8	544.5	544.4
15°	548.0	546.8	545.7	544.5	543.4	541.4	538.5	535.6	532.7	529.8	529.3
17.5°	534.8	533.5	532.2	530.8	529.5	527.0	523.3	519.6	516.0	512.3	511.2
20°	525.1	523.5	521.8	520.2	518.5	515.7	511.8	507.8	503.9	500.0	498.6
22.5°	514.3	512.4	510.5	508.6	506.7	503.7	499.5	495.3	491.1	486.9	485.2
25°	498.6	496.0	493.4	490.8	488.2	484.5	479.8	475.0	470.2	465.5	463.3
27.5°	479.5	476.6	473.7	470.9	468.0	464.0	458.7	453.3	448.0	442.7	439.7
30°	466.4	463.3	460.2	457.1	454.0	449.5	443.7	437.9	432.1	426.3	422.8
32.5°	453.4	449.8	446.3	442.8	439.3	434.5	428.3	422.2	416.1	409.9	406.1
35°	431.5	427.7	424.0	420.3	416.6	411.5	405.1	398.6	392.2	385.8	381.4
37.5°	409.3	405.1	401.0	396.9	392.7	387.2	380.4	373.5	366.7	359.8	354.8
40°	395.1	390.6	386.0	381.5	376.9	370.9	363.6	356.2	348.9	341.5	336.2
42.5°	379.1	374.5	370.0	365.4	360.9	354.8	347.2	339.6	332.0	324.4	318.5
45°	354.6	349.9	345.3	340.6	335.9	329.6	321.7	313.7	305.7	297.7	291.8
47.5°	330.1	325.0	319.8	314.7	309.6	303.1	295.1	287.1	279.2	271.2	264.8
50°	312.2	307.3	302.5	297.6	292.7	286.1	277.7	269.3	260.9	252.5	246.1
52.5°	296.2	290.9	285.6	280.3	275.0	268.2	259.9	251.6	243.3	235.0	228.4
55°	269.3	264.2	259.2	254.1	249.0	242.1	233.3	224.5	215.7	206.9	200.9
57.5°	244.5	239.0	233.5	227.9	222.4	215.2	206.4	197.5	188.7	179.9	174.2
60°	227.4	221.7	216.0	210.3	204.6	197.5	188.9	180.3	171.7	163.1	157.5
62.5°	210.2	204.5	198.8	193.2	187.5	180.3	171.7	163.1	154.5	145.9	140.7
65°	184.1	178.4	172.7	167.0	161.3	154.4	146.3	138.2	130.2	122.1	117.0
67.5°	157.9	152.1	146.3	140.6	134.8	128.1	120.3	112.6	104.8	97.1	93.3
70°	140.7	135.1	129.5	123.9	118.4	111.9	104.7	97.4	90.2	82.9	79.3
72.5°	123.6	118.1	112.6	107.0	101.5	95.5	88.9	82.3	75.7	69.1	66.2
75°	97.4	92.4	87.4	82.5	77.5	72.2	66.5	60.8	55.1	49.4	48.4
77.5°	73.5	69.0	64.5	60.0	55.6	51.5	47.8	44.1	40.5	36.8	36.3
80°	58.2	54.0	49.8	45.5	41.3	38.1	35.9	33.7	31.5	29.4	29.0
82.5°	43.7	40.0	36.4	32.7	29.0	26.7	25.7	24.7	23.7	22.6	22.3
85°	24.7	22.4	20.1	17.9	15.6	14.3	14.0	13.7	13.4	13.0	12.8
87.5°	9.1	8.5	8.0	7.4	6.8	6.8	7.2	7.7	8.1	8.6	8.7
90°	0.8	2.5	4.3	6.0	7.7	9.7	12.0	14.2	16.5	18.8	19.5
92.5°	18.9	20.1	21.3	22.5	23.6	24.9	26.2	27.5	28.7	30.0	30.6
95°	46.1	47.3	48.6	49.8	51.0	52.3	53.7	55.1	56.5	57.9	58.6
97.5°	81.9	82.8	83.7	84.6	85.6	86.5	87.5	88.5	89.5	90.5	91.3
100°	106.3	107.4	108.4	109.5	110.5	111.5	112.3	113.2	114.1	114.9	115.5
102.5°	134.5	135.1	135.7	136.4	137.0	137.9	139.0	140.2	141.3	142.5	143.0
105°	175.9	176.3	176.6	177.0	177.3	178.3	179.8	181.4	183.0	184.5	184.5
107.5°	224.1	224.3	224.5	224.7	224.9	225.3	226.0	226.6	227.2	227.8	228.4
110°	254.1	254.4	254.8	255.1	255.5	255.8	256.2	256.5	256.9	257.2	257.9



TEST NUMBER: P332256

CATALOG NUMBER: S123RDIP-S340D805U835-4F0-1E-UDD-F1

CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	285.4	285.6	285.8	286.0	286.2	286.3	286.4	286.5	286.6	286.6	287.5
115°	332.3	332.8	333.3	333.8	334.4	334.5	334.1	333.8	333.4	333.1	333.2
117.5°	379.5	379.9	380.2	380.5	380.9	380.8	380.4	379.9	379.5	379.0	379.0
120°	408.9	409.9	411.0	412.0	413.1	413.2	412.3	411.4	410.6	409.7	409.5
122.5°	439.6	440.3	441.1	441.8	442.6	442.8	442.3	441.9	441.4	441.0	440.5
125°	486.3	486.8	487.3	487.9	488.4	488.5	488.1	487.8	487.4	487.1	486.4
127.5°	529.5	530.6	531.7	532.8	533.9	534.3	533.9	533.5	533.1	532.7	531.8
130°	558.2	559.6	561.0	562.4	563.8	564.2	563.7	563.2	562.7	562.1	561.4
132.5°	587.0	588.4	589.8	591.2	592.6	593.1	592.7	592.3	591.9	591.5	590.7
135°	630.9	632.0	633.0	634.1	635.1	635.6	635.4	635.2	635.0	634.9	634.2
137.5°	671.6	672.5	673.3	674.2	675.1	675.7	676.2	676.6	677.1	677.5	676.8
140°	699.7	700.6	701.5	702.4	703.2	703.7	703.9	704.1	704.3	704.4	704.3
142.5°	725.4	726.3	727.1	728.0	728.9	729.5	729.8	730.1	730.4	730.7	730.5
145°	765.4	765.8	766.1	766.5	766.8	767.2	767.8	768.3	768.8	769.3	769.2
147.5°	800.5	801.1	801.7	802.3	803.0	803.5	804.0	804.5	805.0	805.5	805.5
150°	824.8	825.2	825.5	825.9	826.2	826.6	826.9	827.3	827.6	828.0	828.0
152.5°	844.9	845.3	845.8	846.3	846.8	847.2	847.4	847.6	847.8	848.0	848.3
155°	876.4	876.4	876.4	876.4	876.4	876.5	876.7	876.9	877.1	877.2	877.9
157.5°	903.3	903.1	902.9	902.7	902.5	902.5	902.6	902.8	902.9	903.0	903.8
160°	920.2	919.9	919.5	919.2	918.8	918.7	918.7	918.7	918.7	918.7	919.5
162.5°	935.2	934.8	934.3	933.8	933.3	933.1	933.3	933.4	933.5	933.7	934.5
165°	954.6	954.1	953.6	953.1	952.5	952.3	952.3	952.3	952.3	952.3	953.3
167.5°	970.1	969.4	968.7	968.0	967.3	967.1	967.2	967.3	967.5	967.6	968.7
170°	978.9	978.2	977.5	976.8	976.1	975.7	975.7	975.7	975.7	975.7	977.0
172.5°	985.7	985.1	984.4	983.7	983.0	982.6	982.6	982.6	982.6	982.6	983.7
175°	992.9	992.2	991.6	990.9	990.2	989.8	989.8	989.8	989.8	989.8	990.9
177.5°	995.9	995.4	994.8	994.2	993.7	993.4	993.4	993.4	993.4	993.4	994.2
180°	995.3	995.3	995.3	995.3	995.3	995.3	995.3	995.3	995.3	995.3	995.3



TEST NUMBER: P332256

CATALOG NUMBER: S123RDIP-S340D805U835-4F0-1E-UDD-F1

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	574.5	574.5	574.5	574.5	574.5	574.5	574.5	574.5
2.5°	572.2	573.1	574.1	574.4	574.3	574.1	573.9	573.8
5°	568.5	569.4	570.3	570.7	570.5	570.3	570.1	569.9
7.5°	560.5	561.0	561.5	561.6	561.2	560.9	560.5	560.2
10°	553.3	553.4	553.5	553.3	552.8	552.3	551.7	551.2
12.5°	544.4	544.3	544.3	543.9	543.3	542.7	542.1	541.5
15°	528.7	528.2	527.7	527.1	526.4	525.6	524.9	524.2
17.5°	510.1	509.0	507.9	506.8	505.7	504.6	503.6	502.5
20°	497.3	495.9	494.6	493.3	492.0	490.8	489.6	488.3
22.5°	483.6	481.9	480.2	478.8	477.6	476.5	475.3	474.2
25°	461.1	459.0	456.8	455.1	454.0	452.9	451.7	450.6
27.5°	436.7	433.7	430.7	428.3	426.5	424.8	423.1	421.3
30°	419.3	415.8	412.3	409.7	408.0	406.4	404.7	403.0
32.5°	402.2	398.4	394.5	391.7	390.0	388.3	386.5	384.8
35°	376.9	372.4	368.0	364.8	363.0	361.1	359.2	357.4
37.5°	349.7	344.6	339.6	335.9	333.6	331.3	329.0	326.7
40°	330.8	325.4	320.0	316.1	313.7	311.4	309.0	306.6
42.5°	312.6	306.8	300.9	296.9	294.7	292.6	290.5	288.3
45°	285.9	280.0	274.1	269.9	267.5	265.0	262.5	260.0
47.5°	258.3	251.9	245.5	241.2	239.0	236.8	234.5	232.3
50°	239.7	233.3	226.9	222.5	220.1	217.7	215.3	212.9
52.5°	221.7	215.0	208.4	204.0	201.8	199.7	197.6	195.4
55°	194.9	188.9	182.9	178.8	176.8	174.7	172.6	170.5
57.5°	168.5	162.8	157.2	153.4	151.7	149.9	148.2	146.4
60°	151.9	146.3	140.7	137.0	135.3	133.5	131.8	130.0
62.5°	135.4	130.2	124.9	121.3	119.5	117.7	115.8	114.0
65°	111.9	106.9	101.8	98.7	97.5	96.4	95.3	94.1
67.5°	89.5	85.7	81.9	79.4	78.2	77.0	75.8	74.6
70°	75.7	72.1	68.4	66.1	64.9	63.8	62.6	61.5
72.5°	63.2	60.3	57.3	55.6	55.1	54.6	54.2	53.7
75°	47.3	46.3	45.2	44.6	44.4	44.2	44.0	43.8
77.5°	35.7	35.1	34.6	34.2	34.0	33.8	33.6	33.4
80°	28.7	28.4	28.1	27.9	27.6	27.4	27.2	27.0
82.5°	22.0	21.7	21.4	21.2	21.2	21.1	21.1	21.1
85°	12.6	12.4	12.2	12.1	12.1	12.1	12.1	12.1
87.5°	8.7	8.8	8.8	8.8	8.8	8.8	8.8	8.8
90°	20.2	20.8	21.5	22.1	22.4	22.8	23.1	23.5
92.5°	31.1	31.7	32.2	32.4	32.2	32.0	31.8	31.6
95°	59.2	59.9	60.6	61.0	61.0	61.0	61.0	61.0
97.5°	92.1	92.9	93.7	94.1	94.0	94.0	93.9	93.8
100°	116.0	116.5	117.0	117.5	117.8	118.1	118.5	118.8
102.5°	143.5	144.0	144.5	144.8	144.7	144.6	144.6	144.5
105°	184.5	184.5	184.5	184.7	185.0	185.4	185.7	186.1
107.5°	228.9	229.5	230.1	230.2	230.0	229.8	229.6	229.4
110°	258.6	259.3	260.0	260.2	259.8	259.5	259.1	258.8



TEST NUMBER: P332256

CATALOG NUMBER: S123RDIP-S340D805U835-4F0-1E-UDD-F1

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	288.3	289.1	290.0	290.3	290.3	290.2	290.1	290.1
115°	333.4	333.6	333.8	333.8	333.6	333.4	333.2	333.1
117.5°	379.0	378.9	378.9	378.6	378.2	377.7	377.2	376.7
120°	409.3	409.2	409.0	408.7	408.4	408.0	407.7	407.3
122.5°	440.1	439.6	439.2	438.7	438.2	437.7	437.2	436.7
125°	485.7	485.0	484.3	483.6	482.9	482.2	481.5	480.8
127.5°	530.8	529.8	528.9	528.0	527.2	526.4	525.6	524.8
130°	560.8	560.1	559.4	558.4	557.2	556.0	554.8	553.5
132.5°	589.9	589.0	588.2	587.3	586.4	585.4	584.5	583.6
135°	633.5	632.8	632.1	631.6	631.2	630.9	630.5	630.2
137.5°	676.1	675.4	674.6	673.9	673.3	672.6	672.0	671.3
140°	704.1	703.9	703.7	703.1	701.8	700.6	699.4	698.2
142.5°	730.4	730.2	730.0	729.5	728.5	727.6	726.6	725.7
145°	769.0	768.8	768.6	768.2	767.5	766.8	766.1	765.4
147.5°	805.5	805.5	805.5	804.9	803.9	802.8	801.8	800.8
150°	828.0	828.0	828.0	827.5	826.4	825.4	824.3	823.3
152.5°	848.5	848.8	849.1	848.8	847.9	847.0	846.1	845.2
155°	878.6	879.3	880.0	879.7	878.5	877.3	876.1	874.9
157.5°	904.5	905.2	905.9	905.8	904.9	903.9	902.9	901.9
160°	920.4	921.3	922.1	922.2	921.5	920.8	920.1	919.4
162.5°	935.4	936.3	937.2	937.0	935.9	934.8	933.7	932.6
165°	954.4	955.4	956.5	956.4	955.2	953.9	952.7	951.5
167.5°	969.8	970.8	971.9	971.9	970.8	969.8	968.7	967.6
170°	978.2	979.4	980.6	980.6	979.4	978.2	977.0	975.7
172.5°	984.8	985.9	986.9	986.9	985.6	984.4	983.2	982.0
175°	991.9	992.9	994.0	993.9	992.7	991.5	990.2	989.0
177.5°	995.1	995.9	996.7	996.7	995.7	994.7	993.8	992.8
180°	995.3	995.3	995.3	995.3	995.3	995.3	995.3	995.3

(END OF REPORT)