

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: P333042-927

Luminaire Tested: **S124RDIW-S575D770U927-4F0-1E-UDD-F1**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P333042-927
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: S124RDIW-S575D770U927-4F0-1E-UDD-F1
Description: DEFINE 4 DIRECT-INDIRECT WALL MOUNT LED LUMINAIRE
DOWNLIGHT 575 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER, REGRESSED
HOUSING
UPLIGHT 770 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3971.5 lumens
Efficiency: N/A
Efficacy: 105.6 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.09 / 1.24
Luminous Opening: Rectangular (W 0.33' x L: 4' x H: 0')
CIE Type: General Diffuse

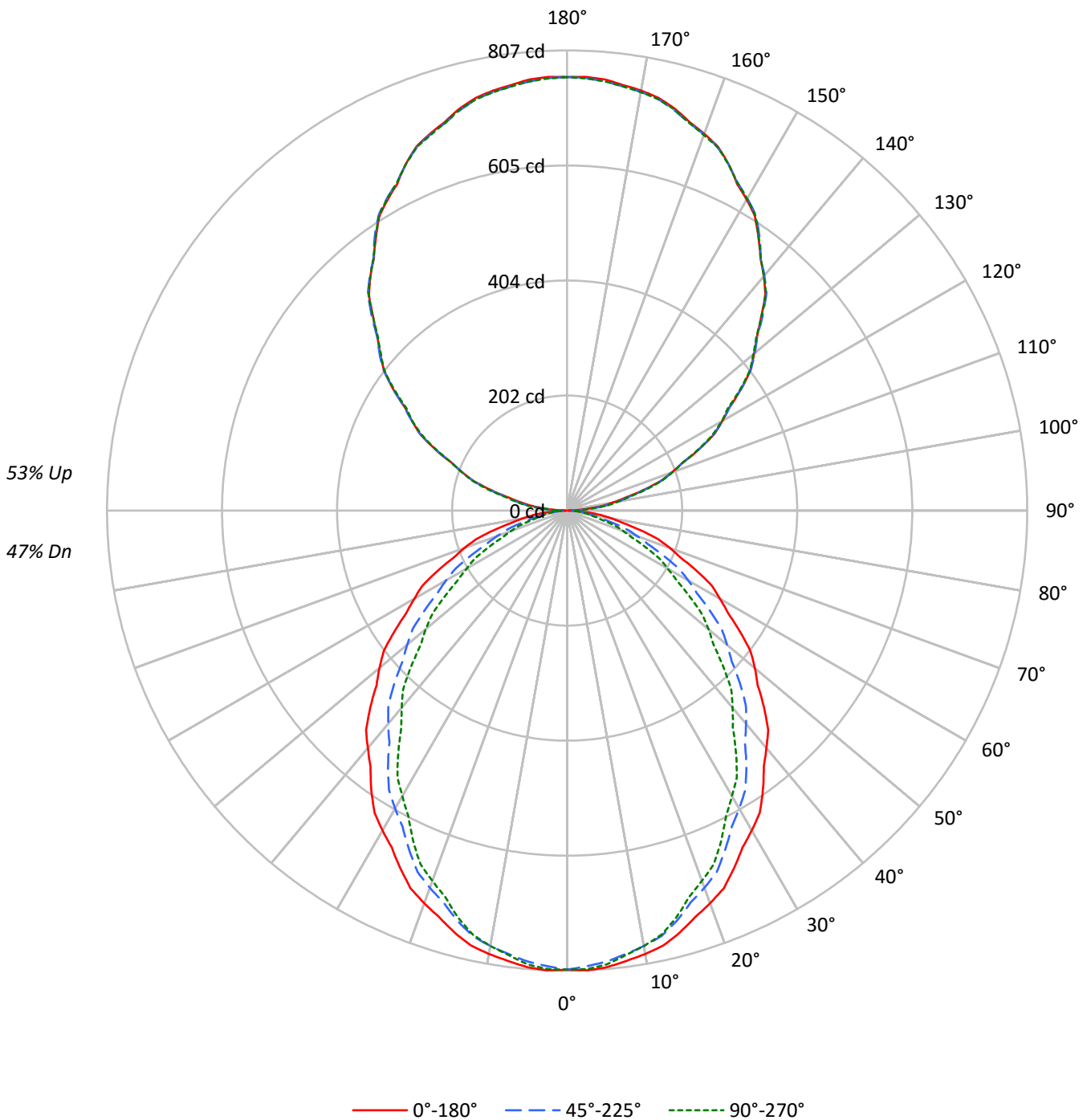
Input Watts (W): 37.6
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P333042-927

CATALOG NUMBER: S124RDIW-S575D770U927-4F0-1E-UDD-F1

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	106	106	106	106	98	98	98	98	82	82	82	67	67	67	53	53	53	47
1	97	93	89	86	89	86	83	80	72	70	67	59	58	56	47	46	45	40
2	89	82	76	71	81	75	70	66	63	60	56	52	50	47	42	40	39	34
3	81	72	65	59	74	66	60	55	56	51	48	46	43	40	37	35	33	29
4	74	64	56	50	68	59	52	47	50	45	41	41	38	35	34	31	29	25
5	68	57	49	43	63	53	46	40	45	39	35	37	33	30	30	27	25	22
6	63	51	43	37	58	47	40	35	40	35	31	34	30	26	28	25	22	19
7	58	46	38	33	53	43	36	31	37	31	27	31	27	23	25	22	20	17
8	54	42	34	29	50	39	32	27	33	28	24	28	24	21	23	20	18	15
9	50	38	31	26	46	36	29	25	31	25	22	26	22	19	21	18	16	14
10	47	35	28	23	43	33	26	22	28	23	20	24	20	17	20	17	15	13

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	6500	6500	6500
5°	6514	6434	6474
10°	6473	6357	6357
15°	6399	6224	6177
20°	6296	6048	5936
25°	6167	5842	5694
30°	6039	5626	5390
35°	5899	5401	5084
40°	5730	5145	4755
45°	5574	4891	4419
50°	5397	4598	4064
55°	5206	4294	3678
60°	4996	3961	3284
65°	4804	3543	2896
70°	4525	3085	2460
75°	4173	2558	1999
80°	3640	1948	1836
85°	3084	1769	1658



TEST NUMBER: P333042-927

CATALOG NUMBER: S124RDIW-S575D770U927-4F0-1E-UDD-F1

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	75.6	1.9
10°-20°	210.9	5.3
20°-30°	304.5	7.7
30°-40°	345.2	8.7
40°-50°	333.3	8.4
50°-60°	277.2	7.0
60°-70°	191.4	4.8
70°-80°	97.0	2.4
80°-90°	27.2	0.7
90°-100°	50.1	1.3
100°-110°	148.5	3.7
110°-120°	252.1	6.3
120°-130°	332.4	8.4
130°-140°	373.3	9.4
140°-150°	366.9	9.2
150°-160°	308.6	7.8
160°-170°	205.3	5.2
170°-180°	71.9	1.8
0°-30°	591.0	14.9
0°-40°	936.2	23.6
0°-60°	1546.7	38.9
0°-90°	1862.3	46.9
90°-120°	450.8	11.4
90°-150°	1523.4	38.4
90°-180°	2109.0	53.1
0°-180°	3971.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	805	805	805	805	805	
5°	804	801	794	800	799	76
15°	766	760	745	743	739	216
25°	692	680	656	646	639	319
35°	599	578	548	528	516	374
45°	488	465	428	399	387	376
55°	370	344	305	274	261	331
65°	252	224	186	160	152	248
75°	134	111	82	68	64	141
85°	33	22	19	18	18	37
90°	2	8	13	16	18	4
95°	35	40	45	46	46	39
105°	137	138	140	142	144	145
115°	256	256	255	255	254	253
125°	373	373	373	372	370	333
135°	482	485	485	484	482	372
145°	585	587	588	587	586	366
155°	670	670	670	672	670	308
165°	730	728	727	730	728	206
175°	759	756	756	759	756	72
180°	760	760	760	760	760	



TEST NUMBER: P333042-927

CATALOG NUMBER: S124RDIW-S575D770U927-4F0-1E-UDD-F1

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	805.1	805.1	805.1	805.1	805.1	805.1	805.1	805.1	805.1	805.1	805.1
2.5°	807.1	806.6	806.2	805.7	805.3	804.5	803.3	802.1	800.8	799.6	800.8
5°	803.8	803.3	802.7	802.2	801.7	800.6	798.9	797.3	795.6	794.0	795.4
7.5°	796.5	796.0	795.4	794.9	794.2	792.9	790.8	788.6	786.5	784.3	785.2
10°	789.6	789.0	788.3	787.6	787.0	785.4	782.9	780.4	777.9	775.5	776.0
12.5°	780.8	780.0	779.2	778.4	777.6	775.8	772.9	769.9	767.1	764.1	764.5
15°	765.6	764.4	763.2	761.9	760.7	758.4	754.9	751.5	748.1	744.7	744.4
17.5°	747.3	745.4	743.7	741.9	740.1	737.2	733.1	729.0	724.8	720.7	720.0
20°	732.9	731.2	729.4	727.6	725.8	722.6	718.0	713.3	708.6	704.0	702.9
22.5°	717.2	715.2	713.2	711.1	709.2	705.7	700.7	695.7	690.7	685.7	684.0
25°	692.3	689.8	687.3	684.8	682.4	678.3	672.7	667.1	661.5	655.9	653.6
27.5°	666.1	663.1	660.0	656.9	653.7	649.2	643.2	637.2	631.2	625.2	622.3
30°	647.8	644.4	641.0	637.6	634.2	629.2	622.8	616.4	609.9	603.5	600.1
32.5°	628.7	624.8	620.9	617.0	613.2	607.9	601.3	594.6	588.0	581.3	577.3
35°	598.6	594.2	589.8	585.4	581.1	575.4	568.5	561.7	554.8	548.0	543.4
37.5°	566.4	561.9	557.4	552.9	548.3	542.2	534.6	527.0	519.5	511.9	506.7
40°	543.7	539.2	534.6	530.1	525.6	519.4	511.7	503.8	496.1	488.2	482.4
42.5°	522.0	517.3	512.5	507.8	503.0	496.6	488.5	480.3	472.2	464.1	458.2
45°	488.2	483.2	478.1	473.0	467.9	461.3	453.0	444.9	436.7	428.4	421.7
47.5°	453.4	448.1	442.8	437.6	432.4	425.5	416.9	408.4	399.9	391.3	384.4
50°	429.7	424.3	419.0	413.6	408.3	401.2	392.4	383.7	374.9	366.1	359.3
52.5°	405.5	400.3	395.1	389.8	384.5	377.5	368.4	359.5	350.5	341.5	334.5
55°	369.9	364.4	358.9	353.4	347.9	340.7	331.8	323.0	314.0	305.1	298.0
57.5°	334.6	328.9	323.2	317.5	311.8	304.6	295.8	287.0	278.3	269.5	262.3
60°	309.4	304.0	298.5	293.0	287.6	280.4	271.6	262.8	254.1	245.3	238.2
62.5°	286.8	281.1	275.4	269.7	264.0	256.7	247.6	238.7	229.7	220.7	214.1
65°	251.5	245.7	239.7	233.9	227.9	220.6	211.8	203.1	194.3	185.5	179.7
67.5°	214.9	209.2	203.6	198.0	192.3	185.4	177.3	169.1	161.1	152.9	147.8
70°	191.7	185.9	180.2	174.4	168.7	161.9	154.1	146.3	138.5	130.7	126.2
72.5°	167.1	161.8	156.6	151.5	146.2	140.0	132.6	125.2	117.8	110.4	106.6
75°	133.8	128.7	123.7	118.6	113.5	107.7	101.3	94.8	88.4	82.0	78.8
77.5°	100.0	95.7	91.4	87.1	82.8	78.0	72.8	67.7	62.4	57.2	55.4
80°	78.3	74.3	70.3	66.4	62.4	58.4	54.3	50.1	46.0	41.9	41.5
82.5°	59.6	55.9	52.3	48.6	45.0	42.0	39.6	37.2	34.9	32.6	32.2
85°	33.3	30.6	27.8	25.0	22.3	20.8	20.4	20.0	19.5	19.1	18.9
87.5°	11.7	11.1	10.5	9.9	9.3	9.1	9.2	9.3	9.4	9.5	9.5
90°	1.7	3.2	4.7	6.1	7.5	8.8	9.8	10.9	11.9	12.9	13.7
92.5°	12.6	14.3	15.8	17.5	19.2	20.4	21.1	21.8	22.6	23.3	23.8
95°	35.3	36.4	37.6	38.8	40.0	41.0	41.9	42.9	43.8	44.7	45.1
97.5°	61.6	62.6	63.5	64.4	65.4	66.4	67.5	68.5	69.6	70.7	71.1
100°	82.3	82.9	83.3	83.9	84.4	85.2	86.4	87.6	88.8	90.0	90.2
102.5°	103.9	104.2	104.3	104.6	104.8	105.4	106.5	107.6	108.6	109.7	110.1
105°	137.0	137.1	137.3	137.4	137.5	137.8	138.4	138.9	139.4	139.9	140.3
107.5°	171.7	171.8	172.0	172.1	172.3	172.5	172.5	172.6	172.7	172.8	173.1
110°	195.2	195.4	195.7	196.0	196.2	196.3	196.1	196.1	195.9	195.7	195.5



TEST NUMBER: P333042-927

CATALOG NUMBER: S124RDIW-S575D770U927-4F0-1E-UDD-F1

CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	219.7	219.7	219.8	219.8	219.8	219.8	219.5	219.3	219.0	218.8	218.8
115°	256.4	256.4	256.4	256.4	256.4	256.2	256.0	255.7	255.4	255.2	255.0
117.5°	290.9	291.0	291.1	291.2	291.4	291.3	291.1	291.0	290.7	290.6	290.1
120°	313.9	314.5	315.0	315.5	316.1	316.1	315.8	315.4	315.0	314.6	313.9
122.5°	337.9	338.2	338.3	338.6	338.8	338.8	338.7	338.4	338.3	338.1	337.6
125°	373.4	373.4	373.4	373.4	373.4	373.3	373.1	373.0	372.9	372.7	372.5
127.5°	405.4	405.8	406.2	406.6	407.0	407.1	406.9	406.7	406.5	406.3	406.0
130°	428.0	428.4	428.8	429.2	429.6	429.8	429.8	429.8	429.8	429.8	429.5
132.5°	451.1	451.4	451.6	451.9	452.3	452.3	452.2	452.1	452.0	451.9	451.6
135°	481.6	482.3	483.1	483.9	484.7	485.1	485.1	485.1	485.1	485.1	484.8
137.5°	514.7	515.1	515.4	515.8	516.2	516.4	516.7	516.8	517.1	517.3	516.9
140°	536.8	537.0	537.3	537.6	537.8	538.0	538.0	538.0	538.0	538.0	537.8
142.5°	557.0	557.3	557.5	557.8	558.1	558.2	558.0	557.9	557.9	557.7	557.7
145°	585.0	585.5	586.1	586.6	587.1	587.4	587.6	587.7	587.8	588.0	587.8
147.5°	612.8	613.4	614.0	614.7	615.3	615.5	615.4	615.3	615.2	615.1	615.0
150°	629.7	630.2	630.7	631.3	631.8	632.1	632.1	632.1	632.1	632.1	632.1
152.5°	645.7	646.0	646.3	646.7	647.0	647.1	647.2	647.4	647.5	647.5	647.8
155°	670.3	670.3	670.3	670.3	670.3	670.2	670.0	669.9	669.8	669.7	670.2
157.5°	690.9	690.7	690.5	690.2	690.0	689.9	689.8	689.8	689.8	689.8	690.1
160°	703.2	703.1	702.9	702.8	702.7	702.5	702.4	702.3	702.1	702.0	702.4
162.5°	714.5	714.2	713.8	713.4	713.1	712.9	712.7	712.6	712.5	712.3	713.0
165°	729.7	729.3	728.9	728.5	728.1	727.8	727.5	727.2	727.0	726.7	727.5
167.5°	741.2	740.8	740.2	739.7	739.1	738.8	738.9	738.9	738.9	738.9	739.7
170°	747.9	747.2	746.6	745.9	745.3	745.0	745.1	745.3	745.4	745.5	746.3
172.5°	752.6	752.0	751.5	750.9	750.4	750.1	750.1	750.2	750.2	750.2	751.1
175°	759.1	758.4	757.7	757.1	756.5	756.1	755.9	755.7	755.7	755.5	756.5
177.5°	761.1	760.7	760.1	759.6	759.1	758.8	758.8	758.8	758.8	758.8	759.5
180°	760.2	760.2	760.2	760.2	760.2	760.2	760.2	760.2	760.2	760.2	760.2



TEST NUMBER: P333042-927

CATALOG NUMBER: S124RDIW-S575D770U927-4F0-1E-UDD-F1

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	805.1	805.1	805.1	805.1	805.1	805.1	805.1	805.1
2.5°	802.1	803.3	804.5	805.0	804.9	804.8	804.7	804.6
5°	796.7	798.1	799.5	800.0	799.7	799.5	799.2	798.9
7.5°	786.1	787.0	787.9	788.1	787.7	787.2	786.8	786.3
10°	776.6	777.1	777.7	777.7	777.1	776.6	776.0	775.5
12.5°	764.8	765.1	765.5	765.2	764.5	763.7	763.0	762.2
15°	744.1	743.9	743.5	743.0	742.0	741.0	740.1	739.1
17.5°	719.2	718.4	717.6	716.5	715.1	713.7	712.2	710.7
20°	701.8	700.7	699.6	698.2	696.4	694.6	692.8	691.0
22.5°	682.5	680.8	679.1	677.6	676.1	674.7	673.3	671.8
25°	651.3	648.9	646.6	644.8	643.3	642.0	640.6	639.2
27.5°	619.4	616.6	613.7	611.2	609.3	607.3	605.4	603.4
30°	596.7	593.2	589.8	587.0	584.8	582.6	580.4	578.2
32.5°	573.4	569.4	565.4	562.4	560.3	558.3	556.1	554.1
35°	538.7	534.0	529.4	525.9	523.4	520.9	518.4	515.9
37.5°	501.5	496.3	491.1	487.3	484.7	482.3	479.8	477.4
40°	476.7	471.0	465.2	461.1	458.6	456.1	453.7	451.2
42.5°	452.3	446.5	440.6	436.4	433.8	431.3	428.6	426.1
45°	415.0	408.3	401.6	397.0	394.5	392.1	389.6	387.1
47.5°	377.4	370.4	363.5	358.6	355.9	353.2	350.5	347.8
50°	352.4	345.6	338.7	334.1	331.4	328.8	326.2	323.6
52.5°	327.6	320.6	313.7	308.9	306.1	303.4	300.7	298.0
55°	290.9	283.8	276.6	271.8	269.2	266.6	264.0	261.3
57.5°	255.0	247.8	240.6	236.0	234.0	232.0	230.0	228.1
60°	231.1	223.9	216.8	212.2	210.0	207.8	205.7	203.4
62.5°	207.6	201.0	194.4	190.2	188.5	186.7	185.0	183.2
65°	173.8	167.9	162.0	158.2	156.6	155.0	153.3	151.6
67.5°	142.8	137.7	132.6	129.2	127.4	125.6	123.7	121.9
70°	121.7	117.2	112.6	109.6	108.3	106.9	105.5	104.2
72.5°	102.7	98.9	95.0	92.4	91.2	89.9	88.6	87.4
75°	75.7	72.6	69.4	67.4	66.5	65.8	65.0	64.1
77.5°	53.6	51.7	49.8	48.8	48.6	48.3	48.1	47.8
80°	41.1	40.7	40.2	40.0	39.8	39.7	39.6	39.5
82.5°	31.9	31.6	31.4	31.1	31.0	30.8	30.7	30.6
85°	18.5	18.3	18.0	17.9	17.9	17.9	17.9	17.9
87.5°	9.6	9.7	9.7	9.8	10.0	10.1	10.3	10.5
90°	14.5	15.3	16.1	16.6	16.9	17.1	17.3	17.7
92.5°	24.2	24.7	25.2	25.5	25.7	25.8	26.0	26.1
95°	45.5	45.9	46.3	46.4	46.4	46.4	46.4	46.4
97.5°	71.6	72.1	72.6	72.8	72.8	72.8	72.8	72.8
100°	90.5	90.7	91.0	91.1	91.1	91.1	91.1	91.1
102.5°	110.4	110.8	111.1	111.4	111.5	111.6	111.7	111.9
105°	140.7	141.1	141.5	141.9	142.3	142.7	143.1	143.5
107.5°	173.5	173.8	174.2	174.4	174.4	174.4	174.3	174.3
110°	195.3	195.0	194.7	194.8	195.2	195.6	196.0	196.4



TEST NUMBER: P333042-927

CATALOG NUMBER: S124RDIW-S575D770U927-4F0-1E-UDD-F1

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	218.7	218.6	218.6	218.6	218.7	218.8	218.9	219.0
115°	254.9	254.8	254.6	254.5	254.4	254.3	254.1	254.0
117.5°	289.7	289.2	288.8	288.4	288.2	287.9	287.6	287.4
120°	313.2	312.6	312.0	311.7	312.0	312.3	312.5	312.8
122.5°	337.2	336.8	336.3	335.8	335.3	334.9	334.5	334.0
125°	372.2	372.0	371.7	371.5	371.2	370.9	370.7	370.4
127.5°	405.8	405.5	405.2	405.0	404.8	404.6	404.3	404.2
130°	429.3	429.0	428.7	428.3	427.9	427.3	426.7	426.3
132.5°	451.4	451.1	450.8	450.6	450.4	450.2	450.0	449.8
135°	484.5	484.3	484.0	483.7	483.3	482.9	482.5	482.1
137.5°	516.6	516.3	515.9	515.8	515.9	515.9	516.0	516.1
140°	537.7	537.6	537.4	537.3	537.2	537.0	536.9	536.8
142.5°	557.7	557.6	557.6	557.6	557.5	557.5	557.5	557.5
145°	587.7	587.6	587.4	587.2	586.8	586.4	586.0	585.6
147.5°	614.9	614.8	614.7	614.6	614.4	614.3	614.2	614.0
150°	632.1	632.1	632.1	632.0	631.8	631.7	631.6	631.4
152.5°	648.2	648.5	648.8	648.8	648.5	648.2	647.8	647.5
155°	670.7	671.2	671.8	671.8	671.2	670.7	670.2	669.7
157.5°	690.5	690.9	691.3	691.3	690.9	690.5	690.0	689.5
160°	702.8	703.2	703.6	703.5	702.8	702.1	701.5	700.8
162.5°	713.8	714.5	715.2	715.2	714.5	713.9	713.3	712.6
165°	728.3	729.0	729.8	730.0	729.4	728.9	728.4	727.9
167.5°	740.5	741.2	742.0	742.0	741.2	740.5	739.7	738.8
170°	747.1	747.9	748.7	748.6	747.7	746.8	745.8	745.0
172.5°	752.0	752.9	753.8	753.8	752.8	751.9	751.0	750.1
175°	757.3	758.3	759.1	759.1	758.3	757.3	756.5	755.5
177.5°	760.3	761.0	761.8	761.7	760.8	760.0	759.1	758.4
180°	760.2	760.2	760.2	760.2	760.2	760.2	760.2	760.2

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