

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: P333409-940

Luminaire Tested: **S125DIW-S850D770U940-4F0-1E-UDD-D1**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P333409-940
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-11,
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S125DIW-S850D770U940-4F0-1E-UDD-D1
Description: DEFINE 5 DIRECT-INDIRECT WALL MOUNT LED LUMINAIRE
DOWNLIGHT 850 LUMENS PER FOOT, DROP SATIN WHITE DIFFUSER
UPLIGHT 770 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5301.2 lumens
Efficiency: N/A
Efficacy: 117.8 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.21 / 1.34
Luminous Opening: Rectangular w/ Sides (W: 0.42' x L: 4' x H: 0.08')
CIE Type: General Diffuse

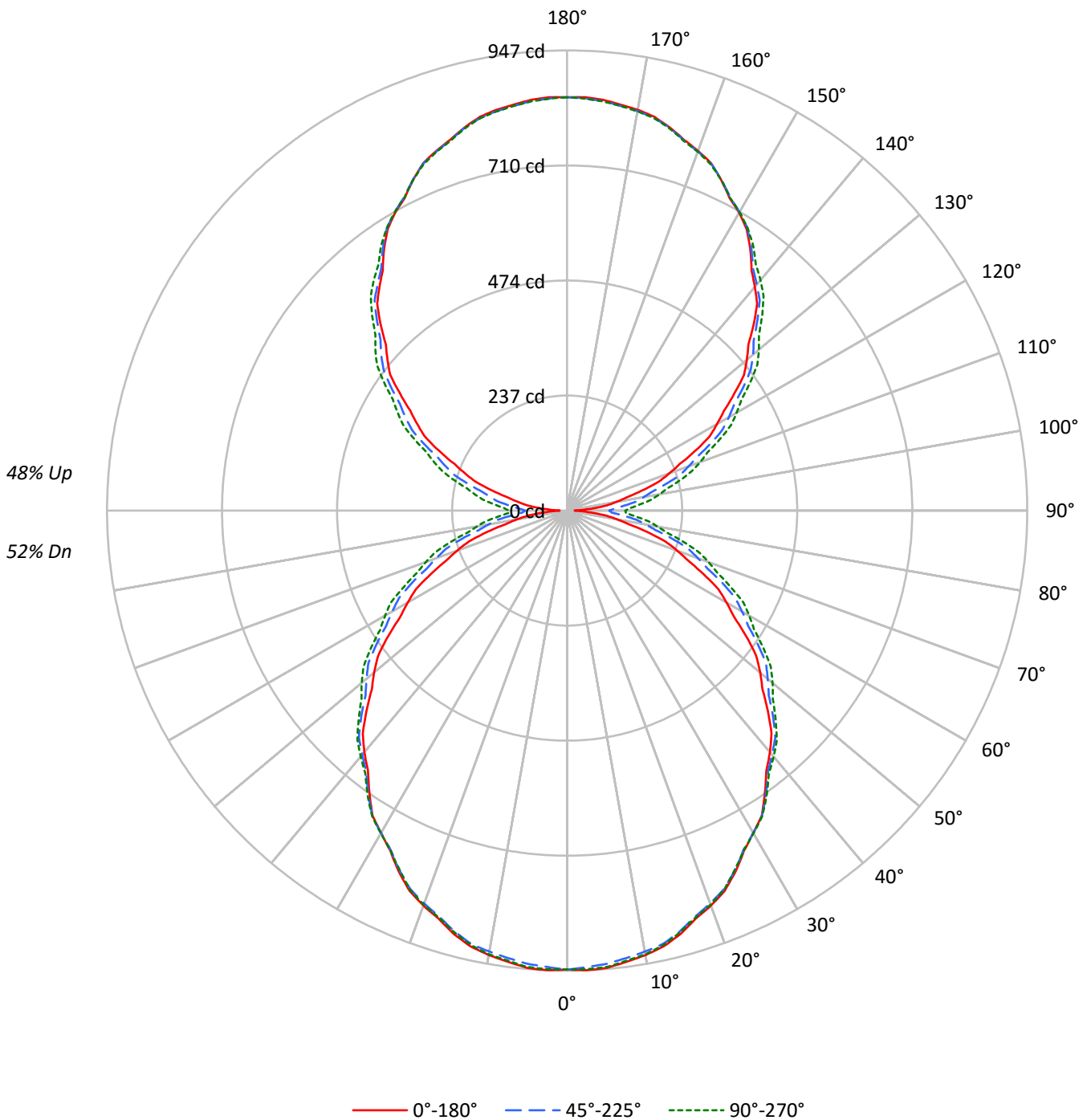
Input Watts (W): 45
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10
RCR																	
0	108	108	108	108	99	99	99	99	84	84	84	71	71	71	58	58	58
1	97	93	89	85	90	86	82	79	73	70	68	61	59	57	50	49	47
2	88	81	74	69	81	75	69	64	63	59	55	53	50	47	43	41	39
3	80	71	63	57	74	65	59	53	56	50	46	47	43	40	38	35	33
4	73	62	54	48	68	58	51	45	49	44	39	41	37	34	34	31	28
5	67	55	47	41	62	51	44	38	44	38	34	37	33	29	31	27	25
6	62	50	41	35	57	46	39	33	40	34	29	33	29	25	28	24	21
7	57	45	37	31	53	42	34	29	36	30	26	30	26	22	25	22	19
8	53	41	33	27	49	38	31	26	33	27	23	28	23	20	23	20	17
9	50	37	29	24	46	35	28	23	30	24	20	26	21	18	21	18	15
10	46	34	27	22	43	32	25	21	28	22	18	24	19	16	20	16	14

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	6101	6101	6101
5°	6113	5988	6007
10°	6069	5881	5872
15°	5998	5753	5701
20°	5900	5595	5529
25°	5784	5425	5318
30°	5644	5239	5126
35°	5513	5068	4951
40°	5379	4888	4773
45°	5228	4733	4617
50°	5084	4566	4479
55°	4912	4408	4315
60°	4722	4227	4149
65°	4525	4039	3961
70°	4301	3780	3769
75°	3945	3533	3533
80°	3483	3233	3276
85°	3046	3031	3195



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	89.3	1.7
10°-20°	253.6	4.8
20°-30°	377.1	7.1
30°-40°	446.7	8.4
40°-50°	461.8	8.7
50°-60°	425.4	8.0
60°-70°	343.9	6.5
70°-80°	230.3	4.3
80°-90°	121.3	2.3
90°-100°	124.0	2.3
100°-110°	217.7	4.1
110°-120°	318.1	6.0
120°-130°	393.8	7.4
130°-140°	428.4	8.1
140°-150°	413.5	7.8
150°-160°	345.9	6.5
160°-170°	229.9	4.3
170°-180°	80.5	1.5
0°-30°	720.0	13.6
0°-40°	1166.7	22.0
0°-60°	2053.9	38.7
0°-90°	2749.4	51.9
90°-120°	659.7	12.4
90°-150°	1895.5	35.8
90°-180°	2552.0	48.1
0°-180°	5301.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	945	945	945	945	945	
5°	945	942	936	943	943	90
15°	902	903	896	902	898	254
25°	820	822	817	820	816	377
35°	709	715	713	716	716	444
45°	584	594	599	605	607	451
55°	449	464	479	489	493	401
65°	309	331	353	366	370	307
75°	170	195	224	242	247	181
85°	51	82	114	134	142	54
90°	16	50	86	110	120	12
95°	55	81	119	143	151	55
105°	159	178	209	231	240	170
115°	291	301	325	341	346	288
125°	420	424	442	455	460	376
135°	543	547	554	565	568	419
145°	657	659	661	665	667	410
155°	751	751	751	754	751	346
165°	816	815	816	818	814	230
175°	849	846	846	849	845	81
180°	851	851	851	851	851	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	944.6	944.6	944.6	944.6	944.6	944.6	944.6	944.6	944.6	944.6	944.6
2.5°	946.8	946.6	946.2	945.8	945.5	944.8	943.6	942.4	941.3	940.1	941.3
5°	944.6	944.2	943.8	943.3	943.0	942.0	940.6	939.1	937.7	936.3	937.9
7.5°	936.3	936.1	935.9	935.8	935.6	934.8	933.4	931.8	930.3	928.9	930.3
10°	928.9	928.9	928.9	928.9	928.9	928.1	926.4	924.8	923.1	921.5	922.9
12.5°	918.5	918.6	918.8	919.0	919.2	918.6	917.3	916.0	914.6	913.3	914.4
15°	902.1	902.2	902.4	902.6	902.9	902.2	900.8	899.4	897.9	896.4	897.7
17.5°	880.6	880.9	881.4	881.7	882.2	881.6	880.2	878.8	877.4	875.9	876.8
20°	865.0	865.4	865.8	866.2	866.7	866.1	864.7	863.3	861.7	860.3	860.9
22.5°	847.2	847.9	848.6	849.4	850.2	849.7	848.1	846.5	844.9	843.3	844.1
25°	819.6	820.2	820.8	821.4	822.1	821.7	820.6	819.3	818.1	816.8	817.6
27.5°	788.8	789.8	790.7	791.6	792.5	792.2	790.9	789.4	788.0	786.7	787.2
30°	765.9	767.1	768.4	769.5	770.8	770.8	769.5	768.4	767.1	765.9	766.3
32.5°	745.1	746.2	747.3	748.3	749.4	749.5	748.6	747.7	746.8	745.9	746.3
35°	709.4	710.9	712.3	713.7	715.2	715.6	715.0	714.3	713.7	713.1	713.7
37.5°	673.6	674.9	676.3	677.6	678.9	679.5	679.2	679.0	678.9	678.7	679.5
40°	649.2	650.9	652.5	654.2	655.8	656.5	656.3	656.1	655.9	655.7	656.5
42.5°	622.5	624.6	626.8	628.9	631.1	632.4	632.8	633.3	633.7	634.2	635.2
45°	584.3	586.7	588.9	591.1	593.4	595.0	596.1	597.1	598.2	599.1	600.7
47.5°	545.3	547.4	549.5	551.6	553.7	555.6	557.4	559.2	560.9	562.7	564.8
50°	518.6	520.8	523.2	525.4	527.6	529.9	532.2	534.5	536.7	539.0	541.3
52.5°	490.4	493.2	496.0	498.7	501.5	504.3	507.0	509.8	512.6	515.3	517.7
55°	449.2	452.5	455.8	459.1	462.4	465.7	469.0	472.3	475.5	478.8	481.1
57.5°	406.9	410.9	414.8	418.7	422.8	426.6	430.4	434.2	437.9	441.8	444.3
60°	378.8	382.9	387.0	391.1	395.2	399.4	403.5	407.6	411.7	415.8	418.9
62.5°	351.3	355.4	359.6	363.7	367.8	372.1	376.6	381.0	385.4	389.9	393.3
65°	309.3	314.1	318.8	323.5	328.2	333.1	338.0	343.0	347.9	352.8	356.0
67.5°	269.7	274.3	278.8	283.4	287.9	292.7	297.7	302.8	307.8	312.8	316.6
70°	240.8	245.5	250.2	255.0	259.8	264.7	270.1	275.4	280.8	286.1	290.1
72.5°	212.7	217.5	222.4	227.3	232.2	237.6	243.4	249.3	255.1	261.0	265.2
75°	170.4	175.8	181.1	186.5	191.8	197.8	204.4	211.0	217.5	224.1	228.2
77.5°	129.8	136.0	142.2	148.4	154.5	160.8	167.1	173.4	179.8	186.2	190.6
80°	104.7	110.8	117.0	123.1	129.4	135.9	142.9	149.9	156.9	163.9	168.4
82.5°	81.7	88.2	94.7	101.2	107.7	114.5	121.7	128.9	136.0	143.2	147.6
85°	50.9	57.7	64.6	71.3	78.1	85.1	92.3	99.5	106.7	113.9	118.4
87.5°	29.1	35.8	42.7	49.5	56.3	63.3	70.5	77.8	84.9	92.1	97.0
90°	15.5	23.3	31.0	38.8	46.5	54.4	62.4	70.4	78.5	86.5	92.0
92.5°	29.3	36.3	43.2	50.1	57.0	64.6	73.1	81.5	90.0	98.4	104.0
95°	55.1	60.7	66.3	72.0	77.7	84.7	93.2	101.7	110.1	118.6	124.1
97.5°	82.4	87.4	92.3	97.2	102.2	109.0	117.8	126.5	135.4	144.1	149.5
100°	102.9	107.2	111.5	115.8	120.1	126.5	135.1	143.6	152.0	160.5	166.2
102.5°	124.9	129.5	134.0	138.7	143.2	149.2	156.6	164.0	171.4	178.8	184.4
105°	159.3	163.3	167.3	171.4	175.4	180.9	188.0	195.0	202.1	209.1	214.1
107.5°	197.3	200.9	204.4	207.9	211.5	216.5	223.1	229.8	236.4	243.0	247.4
110°	223.6	226.9	230.0	233.2	236.4	241.1	247.4	253.5	259.8	265.9	270.3



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	251.1	253.5	255.8	258.2	260.6	264.8	271.0	277.1	283.3	289.4	293.4
115°	290.9	292.9	294.9	296.9	299.0	302.8	308.4	314.1	319.8	325.4	329.0
117.5°	330.7	331.9	333.1	334.3	335.6	338.9	344.1	349.5	354.8	360.2	363.7
120°	356.1	357.5	358.8	360.2	361.5	364.6	369.5	374.4	379.3	384.1	387.7
122.5°	382.9	383.4	384.1	384.6	385.1	387.9	392.8	397.8	402.8	407.7	410.9
125°	420.1	420.7	421.4	422.1	422.8	425.3	429.5	433.8	438.0	442.3	445.3
127.5°	458.9	459.1	459.5	459.8	460.0	462.0	465.6	469.0	472.6	476.2	479.1
130°	482.7	483.2	483.8	484.3	484.8	486.7	489.8	493.0	496.2	499.4	502.1
132.5°	505.8	506.9	508.1	509.3	510.4	512.1	514.2	516.5	518.6	520.8	523.5
135°	543.3	544.0	544.7	545.4	546.1	547.2	548.8	550.4	552.0	553.5	556.2
137.5°	578.6	579.3	580.0	580.7	581.4	582.2	583.3	584.2	585.3	586.3	589.0
140°	600.7	601.4	602.2	602.9	603.6	604.3	604.9	605.6	606.3	606.9	609.5
142.5°	623.4	623.9	624.4	624.8	625.3	625.8	626.3	627.0	627.6	628.2	630.3
145°	656.9	657.3	657.7	658.1	658.4	658.9	659.3	659.8	660.2	660.7	661.6
147.5°	687.0	687.3	687.6	688.0	688.3	688.6	688.9	689.3	689.6	690.0	690.7
150°	707.7	707.5	707.3	707.2	707.0	707.3	707.8	708.5	709.0	709.6	709.6
152.5°	724.6	724.8	725.0	725.2	725.4	725.6	725.9	726.1	726.3	726.6	726.9
155°	750.6	750.6	750.6	750.6	750.6	750.7	750.9	751.0	751.2	751.4	751.9
157.5°	774.0	773.6	773.3	773.0	772.7	772.6	772.8	772.8	773.0	773.2	773.7
160°	787.7	787.3	786.8	786.4	786.0	785.8	786.0	786.1	786.2	786.4	787.0
162.5°	800.0	799.6	799.2	799.0	798.6	798.4	798.5	798.5	798.5	798.6	799.3
165°	816.2	815.9	815.6	815.3	815.0	814.9	815.1	815.2	815.4	815.6	816.1
167.5°	830.0	829.4	828.8	828.2	827.6	827.3	827.3	827.3	827.3	827.3	828.2
170°	837.4	836.8	836.2	835.6	835.0	834.7	834.7	834.7	834.7	834.7	835.6
172.5°	842.7	842.0	841.5	840.9	840.3	840.0	840.0	840.0	840.0	840.0	840.9
175°	848.6	848.0	847.5	846.9	846.2	846.0	846.0	846.0	846.0	846.0	846.9
177.5°	851.7	851.2	850.7	850.2	849.8	849.5	849.4	849.3	849.2	849.0	849.7
180°	850.6	850.6	850.6	850.6	850.6	850.6	850.6	850.6	850.6	850.6	850.6



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	944.6	944.6	944.6	944.6	944.6	944.6	944.6	944.6
2.5°	942.4	943.6	944.8	945.3	945.1	944.9	944.8	944.6
5°	939.6	941.2	942.9	943.6	943.3	943.2	943.0	942.8
7.5°	931.7	933.2	934.6	935.2	935.0	934.9	934.6	934.4
10°	924.3	925.8	927.2	927.8	927.6	927.5	927.2	927.0
12.5°	915.5	916.7	917.7	918.0	917.5	916.9	916.4	915.9
15°	898.9	900.2	901.4	901.6	900.8	899.9	899.1	898.3
17.5°	877.8	878.8	879.7	879.9	879.4	879.0	878.4	878.0
20°	861.6	862.2	862.8	863.1	863.1	863.1	863.1	863.1
22.5°	844.9	845.6	846.4	846.6	846.1	845.6	845.1	844.6
25°	818.5	819.3	820.1	820.0	818.9	818.0	816.9	815.9
27.5°	787.7	788.4	788.9	789.1	788.6	788.3	787.9	787.6
30°	766.7	767.1	767.5	767.7	767.4	767.2	767.0	766.8
32.5°	746.7	747.1	747.5	747.6	747.4	747.3	747.0	746.8
35°	714.3	715.0	715.6	715.9	715.9	715.9	715.9	715.9
37.5°	680.3	681.1	681.9	682.3	682.2	682.2	682.1	682.0
40°	657.3	658.2	659.0	659.6	660.0	660.4	660.8	661.2
42.5°	636.1	637.1	638.1	638.6	638.7	638.8	638.9	639.0
45°	602.1	603.5	604.9	605.7	606.0	606.2	606.4	606.6
47.5°	566.9	569.0	571.1	572.4	572.8	573.3	573.7	574.2
50°	543.5	545.8	548.0	549.5	550.1	550.7	551.3	552.0
52.5°	520.1	522.5	525.0	526.5	526.9	527.4	527.8	528.2
55°	483.3	485.6	487.9	489.4	490.2	491.1	491.9	492.7
57.5°	446.9	449.5	452.1	453.7	454.3	455.0	455.6	456.2
60°	422.0	425.1	428.2	430.0	430.6	431.2	431.9	432.5
62.5°	396.7	400.1	403.6	405.6	406.4	407.2	408.0	408.8
65°	359.0	362.1	365.2	367.1	368.0	368.8	369.6	370.4
67.5°	320.3	324.0	327.8	330.2	331.3	332.3	333.4	334.5
70°	294.0	297.9	301.8	304.3	305.6	306.8	308.1	309.3
72.5°	269.5	273.7	277.9	280.5	281.4	282.3	283.2	284.1
75°	232.4	236.5	240.6	243.2	244.2	245.2	246.2	247.3
77.5°	195.2	199.7	204.3	207.0	207.8	208.6	209.4	210.3
80°	173.0	177.5	182.0	184.7	185.6	186.4	187.2	188.0
82.5°	151.9	156.2	160.6	163.5	165.1	166.5	168.0	169.5
85°	123.0	127.5	132.1	135.1	136.8	138.4	140.1	141.7
87.5°	101.9	106.7	111.6	114.9	116.4	117.9	119.5	121.0
90°	97.5	102.9	108.4	112.1	114.0	115.8	117.7	119.6
92.5°	109.5	115.0	120.6	124.2	126.0	127.7	129.5	131.3
95°	129.7	135.3	140.8	144.5	146.2	147.9	149.6	151.4
97.5°	154.7	160.0	165.3	168.7	170.3	171.9	173.4	175.0
100°	171.8	177.5	183.2	186.7	188.2	189.8	191.3	192.9
102.5°	189.9	195.6	201.2	204.8	206.4	208.0	209.7	211.3
105°	219.2	224.2	229.2	232.6	234.4	236.3	238.3	240.1
107.5°	252.0	256.5	261.0	263.9	265.2	266.4	267.6	268.9
110°	274.6	279.0	283.4	286.1	287.5	288.7	290.1	291.3



TEST NUMBER: P333409-940

CATALOG NUMBER: S125DIW-S850D770U940-4F0-1E-UDD-D1

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	297.4	301.3	305.2	307.8	309.0	310.1	311.4	312.5
115°	332.5	336.1	339.7	342.0	343.0	344.1	345.2	346.3
117.5°	367.4	371.0	374.6	376.8	377.6	378.4	379.2	380.0
120°	391.2	394.7	398.1	400.3	400.9	401.5	402.2	402.9
122.5°	414.1	417.3	420.5	422.6	423.3	424.1	424.8	425.6
125°	448.3	451.3	454.3	456.2	457.1	458.0	458.9	459.8
127.5°	482.0	484.9	487.8	489.6	490.5	491.5	492.4	493.3
130°	504.8	507.6	510.3	512.0	512.7	513.5	514.2	515.0
132.5°	526.2	529.0	531.7	533.3	533.8	534.2	534.7	535.1
135°	558.8	561.5	564.2	565.8	566.2	566.7	567.1	567.6
137.5°	591.6	594.1	596.7	598.1	598.2	598.2	598.3	598.4
140°	612.0	614.6	617.2	618.4	618.5	618.6	618.7	618.8
142.5°	632.4	634.5	636.6	637.8	637.8	637.9	638.0	638.1
145°	662.7	663.7	664.8	665.5	665.8	666.2	666.6	667.0
147.5°	691.4	692.1	692.8	692.8	692.1	691.5	690.9	690.3
150°	709.6	709.6	709.6	709.5	709.4	709.4	709.3	709.3
152.5°	727.3	727.6	728.0	727.9	727.5	726.9	726.5	725.9
155°	752.5	753.0	753.7	753.6	752.9	752.2	751.4	750.6
157.5°	774.4	774.9	775.5	775.3	774.4	773.4	772.4	771.4
160°	787.6	788.2	788.7	788.7	787.9	787.2	786.5	785.8
162.5°	800.0	800.7	801.4	801.4	800.5	799.6	798.8	797.9
165°	816.7	817.3	817.9	817.7	816.9	816.0	815.1	814.2
167.5°	829.1	830.0	830.8	830.8	829.9	829.0	828.1	827.2
170°	836.5	837.4	838.3	838.2	837.1	836.2	835.1	834.1
172.5°	841.8	842.7	843.6	843.6	842.7	841.7	840.8	839.9
175°	847.7	848.6	849.5	849.4	848.4	847.4	846.3	845.3
177.5°	850.4	851.1	851.9	851.8	851.0	850.2	849.4	848.5
180°	850.6	850.6	850.6	850.6	850.6	850.6	850.6	850.6

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