

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: P333403-940

Luminaire Tested: **S125DIW-S850D470U940-4F0-1E-UDD-D1**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P333403-940
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-S850D470U940-4F0-1E-UDD-D1
Description: DEFINE 5 DIRECT-INDIRECT WALL MOUNT LED LUMINAIRE
DOWNLIGHT 850 LUMENS PER FOOT, DROP SATIN WHITE DIFFUSER
UPLIGHT 470 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4376.1 lumens
Efficiency: N/A
Efficacy: 116.1 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: Semi-Direct

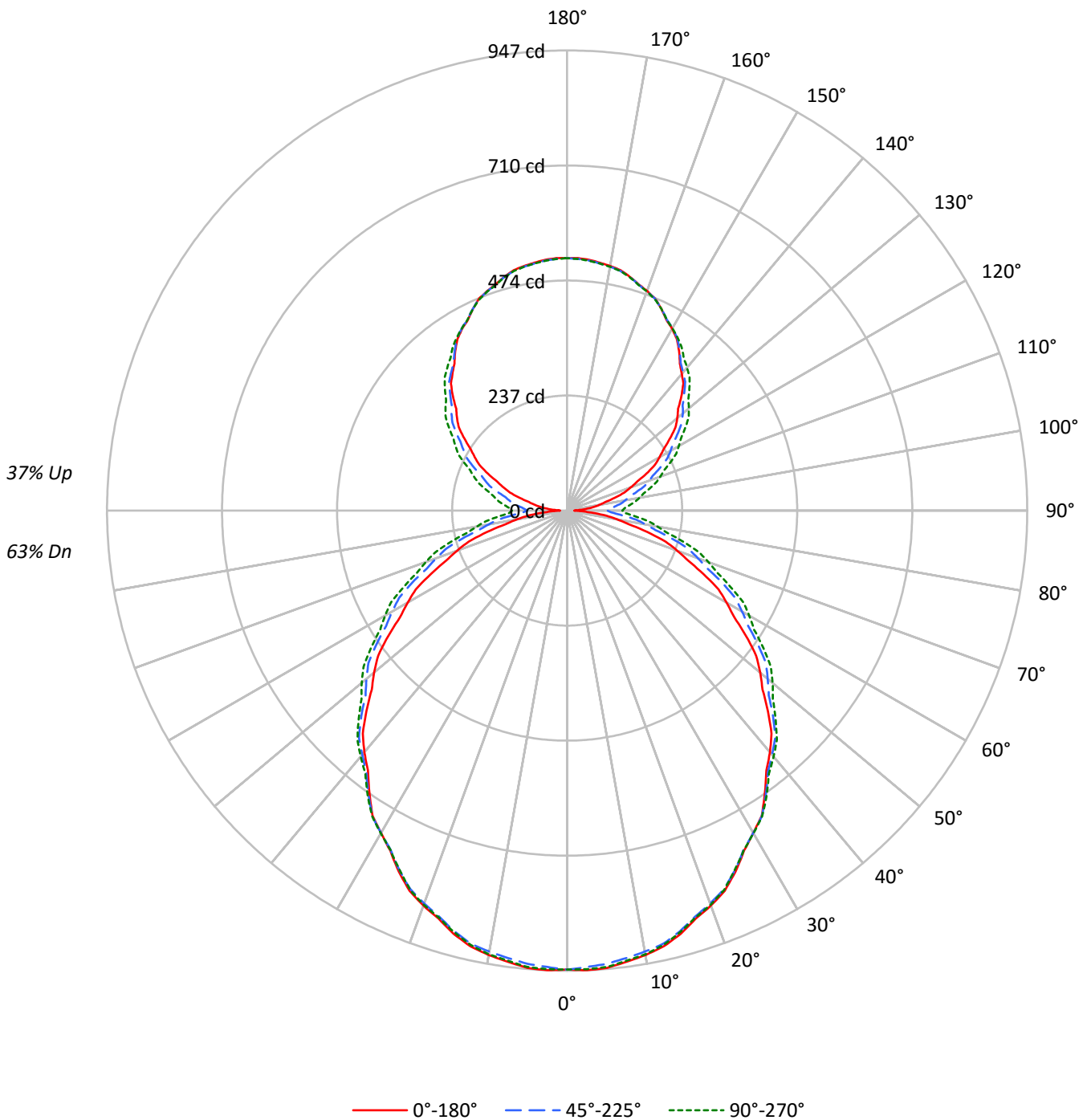
Input Watts (W): 37.7
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
RCR																		
0	110	110	110	110	103	103	103	103	90	90	90	79	79	79	68	68	68	63
1	100	95	91	87	93	89	85	82	78	75	72	68	66	64	59	57	55	51
2	90	82	76	70	84	77	71	66	68	63	59	59	56	53	51	48	46	42
3	82	72	64	58	77	68	61	55	60	54	49	52	48	44	45	42	39	35
4	75	64	55	49	70	60	52	47	53	47	42	46	41	38	40	36	33	30
5	69	57	48	42	64	53	46	40	47	41	36	41	36	32	36	32	29	26
6	64	51	42	36	59	48	40	35	42	36	31	37	32	28	33	28	25	23
7	59	46	38	32	55	43	36	30	39	32	28	34	29	25	30	26	22	20
8	55	42	34	28	51	39	32	27	35	29	25	31	26	22	27	23	20	18
9	51	38	30	25	48	36	29	24	32	26	22	29	24	20	25	21	18	16
10	48	35	28	23	45	33	26	22	30	24	20	26	22	18	23	19	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	2.0
10°-20°	253.6	5.8
20°-30°	377.1	8.6
30°-40°	446.7	10.2
40°-50°	461.8	10.6
50°-60°	425.4	9.7
60°-70°	343.9	7.9
70°-80°	230.3	5.3
80°-90°	120.6	2.8
90°-100°	101.8	2.3
100°-110°	152.1	3.5
110°-120°	207.1	4.7
120°-130°	247.8	5.7
130°-140°	264.8	6.1
140°-150°	253.1	5.8
150°-160°	211.2	4.8
160°-170°	140.4	3.2
170°-180°	49.1	1.1
0°-30°	720.0	16.5
0°-40°	1166.7	26.7
0°-60°	2053.9	46.9
0°-90°	2748.7	62.8
90°-120°	461.0	10.5
90°-150°	1226.7	28.0
90°-180°	1627.0	37.2
0°-180°	4376.1	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°	15	48	82	105	113	11
95°	38	64	99	121	129	38
105°	100	118	148	168	176	107
115°	180	189	213	228	234	178
125°	258	260	278	292	297	231
135°	332	334	341	352	356	256
145°	401	402	403	408	410	251
155°	458	458	459	460	458	211
165°	498	498	498	499	497	141
175°	518	517	516	519	516	49
180°	519	519	519	519	519	



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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°	29.0	35.7	42.4	49.1	55.9	62.8	69.9	77.0	84.2	91.3	96.1
90°	15.2	22.6	29.9	37.1	44.4	51.9	59.6	67.1	74.8	82.4	87.6
92.5°	23.1	29.7	36.3	42.9	49.5	56.8	64.6	72.6	80.5	88.5	93.6
95°	38.3	43.9	49.4	54.9	60.5	67.1	75.1	82.9	90.9	98.7	103.9
97.5°	54.6	59.5	64.4	69.2	74.1	80.5	88.5	96.6	104.5	112.5	117.4
100°	66.8	71.1	75.4	79.7	84.1	90.1	97.8	105.6	113.3	121.1	126.3
102.5°	79.9	84.3	88.6	93.0	97.4	103.0	110.0	117.1	124.0	131.1	136.1
105°	100.5	104.2	108.0	111.7	115.5	120.6	127.4	134.1	140.8	147.5	152.2
107.5°	123.3	126.5	129.8	133.0	136.3	141.1	147.4	153.7	160.1	166.5	170.8
110°	139.0	142.0	144.9	147.8	150.7	155.2	161.2	167.3	173.3	179.3	183.5



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	155.9	158.1	160.2	162.5	164.7	168.8	174.7	180.7	186.5	192.5	196.4
115°	179.8	181.6	183.3	185.1	187.0	190.6	196.2	201.7	207.2	212.8	216.3
117.5°	203.8	204.8	205.9	207.1	208.1	211.3	216.5	221.8	227.0	232.2	235.8
120°	219.3	220.3	221.4	222.5	223.5	226.4	231.3	236.1	240.9	245.8	249.2
122.5°	235.3	235.8	236.2	236.7	237.1	239.7	244.5	249.3	254.1	259.0	262.2
125°	257.9	258.2	258.6	259.0	259.2	261.5	265.7	269.9	274.1	278.3	281.4
127.5°	281.2	281.3	281.4	281.5	281.6	283.5	287.0	290.4	293.9	297.4	300.3
130°	295.8	296.0	296.3	296.5	296.8	298.5	301.5	304.5	307.6	310.7	313.4
132.5°	309.6	310.3	311.0	311.7	312.4	313.8	316.0	318.2	320.4	322.5	325.4
135°	332.4	332.8	333.1	333.4	333.8	334.7	336.3	337.8	339.3	340.8	343.5
137.5°	353.9	354.3	354.6	355.0	355.3	356.0	356.9	357.8	358.6	359.5	362.1
140°	367.1	367.6	368.0	368.5	368.9	369.3	369.8	370.3	370.8	371.2	373.7
142.5°	381.0	381.2	381.4	381.7	381.8	382.2	382.5	382.9	383.3	383.7	385.8
145°	401.4	401.6	401.7	401.9	402.1	402.3	402.5	402.8	403.1	403.3	404.4
147.5°	419.5	419.6	419.8	420.0	420.3	420.4	420.6	420.9	421.1	421.3	421.9
150°	432.0	431.9	431.9	431.8	431.7	431.9	432.2	432.6	432.9	433.3	433.3
152.5°	442.4	442.6	442.6	442.7	442.9	443.0	443.2	443.4	443.4	443.6	443.8
155°	458.3	458.3	458.3	458.3	458.3	458.3	458.4	458.5	458.6	458.7	459.1
157.5°	472.5	472.3	472.2	472.0	471.7	471.7	471.8	471.9	472.0	472.1	472.4
160°	481.0	480.7	480.4	480.1	479.8	479.7	479.8	479.9	480.0	480.1	480.5
162.5°	488.4	488.2	488.0	487.8	487.6	487.5	487.5	487.5	487.6	487.6	488.0
165°	498.3	498.1	497.9	497.8	497.6	497.6	497.7	497.8	497.8	497.9	498.3
167.5°	506.8	506.4	506.0	505.7	505.3	505.2	505.2	505.2	505.2	505.2	505.7
170°	511.2	510.9	510.5	510.1	509.8	509.6	509.6	509.6	509.6	509.6	510.1
172.5°	514.5	514.2	513.8	513.4	513.1	512.9	512.9	512.9	512.9	512.9	513.4
175°	518.2	517.7	517.4	517.0	516.7	516.5	516.5	516.5	516.5	516.5	517.0
177.5°	520.0	519.7	519.4	519.2	518.8	518.6	518.6	518.5	518.4	518.4	518.8
180°	519.3	519.3	519.3	519.3	519.3	519.3	519.3	519.3	519.3	519.3	519.3



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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°	100.9	105.8	110.6	113.8	115.3	116.7	118.2	119.8
90°	92.7	97.9	103.2	106.6	108.3	110.0	111.7	113.4
92.5°	98.8	104.0	109.1	112.5	114.1	115.8	117.4	119.1
95°	109.1	114.2	119.3	122.7	124.4	126.0	127.6	129.2
97.5°	122.3	127.2	132.2	135.4	136.9	138.4	139.9	141.4
100°	131.3	136.5	141.6	144.9	146.3	147.8	149.2	150.5
102.5°	141.2	146.2	151.2	154.4	156.0	157.5	158.9	160.4
105°	156.9	161.5	166.1	169.3	171.0	172.7	174.4	176.2
107.5°	175.1	179.5	183.8	186.6	187.9	189.1	190.4	191.6
110°	187.7	191.9	196.0	198.9	200.2	201.5	202.9	204.2



TEST NUMBER: P333403-940

CATALOG NUMBER: S125DIW-S850D470U940-4F0-1E-UDD-D1

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	200.3	204.1	208.0	210.6	211.9	213.1	214.5	215.7
115°	220.0	223.6	227.2	229.6	230.7	231.8	233.0	234.2
117.5°	239.3	242.9	246.5	248.8	249.9	250.9	251.9	253.0
120°	252.7	256.3	259.8	261.9	262.8	263.7	264.6	265.5
122.5°	265.5	268.8	272.0	274.1	275.0	276.0	277.0	277.9
125°	284.5	287.7	290.8	292.8	293.7	294.7	295.6	296.6
127.5°	303.3	306.2	309.2	311.2	312.2	313.2	314.2	315.2
130°	316.2	319.1	321.8	323.7	324.5	325.4	326.2	327.1
132.5°	328.1	330.9	333.8	335.5	336.1	336.6	337.2	337.9
135°	346.2	348.8	351.5	353.2	353.9	354.5	355.3	355.9
137.5°	364.6	367.2	369.7	371.1	371.6	371.9	372.3	372.6
140°	376.1	378.6	381.0	382.5	382.8	383.2	383.5	384.0
142.5°	387.7	389.8	391.8	393.1	393.4	393.8	394.1	394.6
145°	405.4	406.4	407.4	408.2	408.8	409.4	409.9	410.5
147.5°	422.4	422.9	423.5	423.7	423.4	423.1	422.9	422.7
150°	433.3	433.3	433.3	433.3	433.3	433.3	433.4	433.4
152.5°	444.1	444.3	444.4	444.4	444.2	443.9	443.6	443.3
155°	459.4	459.8	460.1	460.1	459.7	459.2	458.8	458.3
157.5°	472.8	473.1	473.5	473.4	472.8	472.2	471.6	471.0
160°	480.9	481.3	481.6	481.5	481.1	480.6	480.2	479.7
162.5°	488.5	488.8	489.3	489.3	488.7	488.2	487.7	487.1
165°	498.6	499.0	499.4	499.3	498.7	498.2	497.7	497.1
167.5°	506.2	506.8	507.3	507.3	506.7	506.1	505.6	505.1
170°	510.7	511.2	511.8	511.8	511.1	510.5	509.9	509.3
172.5°	514.0	514.5	515.1	515.1	514.4	513.9	513.4	512.8
175°	517.5	518.2	518.7	518.6	518.0	517.4	516.7	516.1
177.5°	519.2	519.7	520.1	520.0	519.6	519.1	518.5	518.1
180°	519.3	519.3	519.3	519.3	519.3	519.3	519.3	519.3

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