

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: P333208-940

Luminaire Tested: **S125DIP-S850D365U940-4F0-1E-UDD-D**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P333208-940  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-7,  
Test Lab: INNOVATION CENTER  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: NEO-RAY  
Catalog Number: S125DIP-S850D365U940-4F0-1E-UDD-D  
Description: DEFINE 5 DIRECT-INDIRECT PENDANT LED LUMINAIRE  
DOWNLIGHT 850 LUMENS PER FOOT, DROP SATIN WHITE DIFFUSER  
UPLIGHT 365 LUMENS PER FOOT, NO LENS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4232.4 lumens  
Efficiency: N/A  
Efficacy: 120.9 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

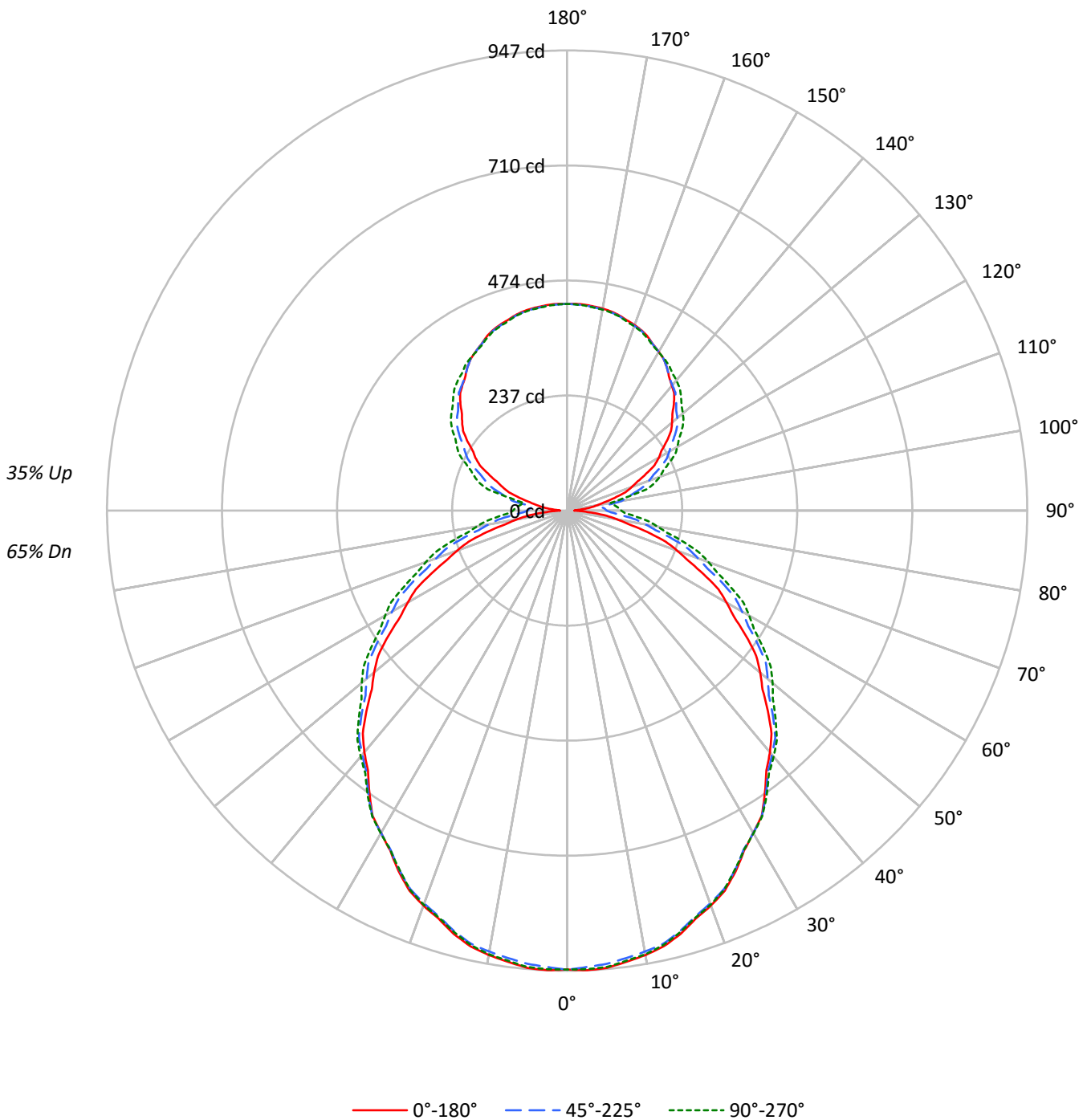
Input Watts (W): 35  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Luminous Intensity Polar Plot





TEST NUMBER: P333208-940

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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	111	111	111	111	104	104	104	104	92	92	92	80	80	80	70	70	70	65
1	100	95	91	87	94	90	86	82	79	76	73	69	67	65	60	59	57	53
2	91	83	76	70	85	78	72	67	69	64	60	60	57	54	52	50	47	43
3	83	72	65	58	77	68	61	55	60	55	50	53	49	45	46	43	40	36
4	76	64	56	49	71	60	53	47	53	47	42	47	42	38	41	37	34	31
5	69	57	48	42	65	54	46	40	48	41	37	42	37	33	37	33	30	27
6	64	51	43	36	60	48	41	35	43	37	32	38	33	29	33	29	26	23
7	59	46	38	32	55	44	36	31	39	33	28	35	29	26	31	26	23	21
8	55	42	34	28	51	40	32	27	36	29	25	32	27	23	28	24	21	18
9	51	38	31	25	48	36	29	24	33	27	22	29	24	20	26	22	19	16
10	48	35	28	23	45	33	27	22	30	24	20	27	22	19	24	20	17	15

**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	2.1
10°-20°	253.6	6.0
20°-30°	377.1	8.9
30°-40°	446.7	10.6
40°-50°	461.8	10.9
50°-60°	425.4	10.1
60°-70°	343.9	8.1
70°-80°	230.3	5.4
80°-90°	120.3	2.8
90°-100°	82.5	1.9
100°-110°	144.7	3.4
110°-120°	205.8	4.9
120°-130°	240.5	5.7
130°-140°	246.6	5.8
140°-150°	225.4	5.3
150°-160°	181.0	4.3
160°-170°	117.1	2.8
170°-180°	40.4	1.0
0°-30°	720.0	17.0
0°-40°	1166.7	27.6
0°-60°	2053.9	48.5
0°-90°	2748.4	64.9
90°-120°	432.9	10.2
90°-150°	1145.5	27.1
90°-180°	1484.0	35.1
0°-180°	4232.4	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	47	81	103	111	11
95°	30	53	73	94	101	32
105°	101	118	145	163	170	107
115°	180	188	212	227	231	178
125°	251	253	271	284	288	224
135°	310	312	317	328	331	239
145°	359	358	358	363	365	224
155°	394	392	393	394	391	181
165°	416	414	414	416	414	117
175°	425	424	424	426	423	40
180°	425	425	425	425	425	



TEST NUMBER: P333208-940

CATALOG NUMBER: S125DIP-S850D365U940-4F0-1E-UDD-D

**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	49.0	55.7	62.7	69.7	76.9	83.9	91.0	95.9
90°	15.2	22.3	29.4	36.6	43.7	51.0	58.5	66.0	73.5	81.0	86.1
92.5°	18.2	23.9	29.6	35.3	41.0	47.6	55.2	62.9	70.4	78.0	82.9
95°	30.0	35.1	40.3	45.4	50.6	55.3	59.7	63.9	68.3	72.7	77.5
97.5°	48.4	53.6	58.9	64.0	69.2	72.6	74.0	75.5	77.0	78.5	80.8
100°	62.9	67.3	71.9	76.4	81.0	86.7	93.5	100.4	107.3	114.1	108.0
102.5°	77.5	81.8	86.0	90.2	94.5	100.0	106.5	113.1	119.7	126.3	128.5
105°	101.0	104.6	108.2	111.7	115.3	120.2	126.4	132.5	138.7	144.9	149.0
107.5°	125.5	128.3	131.1	133.8	136.7	141.2	147.2	153.3	159.3	165.4	169.5
110°	141.4	143.8	146.3	148.8	151.2	155.4	161.4	167.3	173.2	179.1	182.8



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	157.0	159.2	161.3	163.5	165.6	169.5	175.2	180.8	186.5	192.3	195.7
115°	179.6	181.4	183.2	184.9	186.7	190.3	195.7	201.2	206.6	212.0	215.4
117.5°	202.9	203.8	204.7	205.7	206.6	209.7	215.1	220.4	225.8	231.0	234.2
120°	218.0	218.6	219.1	219.6	220.3	222.9	227.9	232.8	237.8	242.7	246.1
122.5°	230.7	231.2	231.8	232.3	232.8	235.5	240.1	244.8	249.5	254.1	257.3
125°	251.1	251.5	251.7	252.0	252.3	254.5	258.6	262.7	266.8	270.9	273.9
127.5°	269.9	270.1	270.3	270.4	270.5	272.2	275.6	278.9	282.2	285.6	288.5
130°	282.0	282.2	282.3	282.5	282.6	284.2	287.1	290.1	293.0	296.0	298.6
132.5°	293.4	293.8	294.2	294.5	294.9	296.0	298.2	300.2	302.3	304.3	307.2
135°	310.4	310.7	310.9	311.1	311.3	312.0	313.3	314.7	315.9	317.3	319.8
137.5°	326.1	326.3	326.5	326.6	326.9	327.3	327.8	328.4	329.0	329.6	332.0
140°	335.6	335.8	336.0	336.1	336.3	336.4	336.5	336.6	336.8	336.9	339.3
142.5°	345.0	344.9	344.8	344.7	344.6	344.7	344.8	345.0	345.1	345.3	347.2
145°	358.6	358.6	358.6	358.5	358.4	358.4	358.4	358.4	358.4	358.4	359.4
147.5°	369.7	369.7	369.7	369.6	369.6	369.6	369.7	369.8	369.9	370.0	370.4
150°	377.3	377.2	377.0	376.8	376.7	376.7	376.8	377.0	377.2	377.3	377.5
152.5°	384.6	384.3	384.0	383.7	383.3	383.3	383.4	383.6	383.7	383.9	384.0
155°	394.0	393.6	393.2	392.7	392.4	392.2	392.4	392.4	392.6	392.7	393.0
157.5°	401.3	401.0	400.7	400.5	400.3	400.1	400.1	400.2	400.2	400.2	400.4
160°	406.3	405.9	405.5	405.0	404.7	404.5	404.5	404.6	404.7	404.7	405.0
162.5°	410.4	409.9	409.5	409.0	408.7	408.5	408.6	408.6	408.7	408.8	409.1
165°	415.7	415.4	414.9	414.5	414.1	413.9	413.9	414.0	414.1	414.2	414.6
167.5°	419.8	419.4	418.9	418.5	418.0	417.9	417.9	418.0	418.1	418.1	418.7
170°	422.0	421.6	421.1	420.6	420.1	419.9	420.0	420.0	420.1	420.2	420.7
172.5°	423.6	423.1	422.6	422.1	421.6	421.4	421.5	421.7	421.8	422.0	422.4
175°	425.2	424.8	424.4	423.9	423.6	423.4	423.4	423.5	423.6	423.7	424.2
177.5°	426.0	425.6	425.3	425.0	424.6	424.5	424.5	424.6	424.6	424.7	425.1
180°	425.2	425.2	425.2	425.2	425.2	425.2	425.2	425.2	425.2	425.2	425.2



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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°	100.7	105.4	110.2	113.4	114.9	116.4	117.8	119.3
90°	91.1	96.2	101.3	104.7	106.3	108.0	109.7	111.3
92.5°	87.8	92.7	97.7	100.9	102.5	104.0	105.6	107.1
95°	82.4	87.3	92.2	95.3	96.8	98.2	99.6	101.1
97.5°	83.2	85.5	87.8	89.7	91.1	92.6	93.9	95.3
100°	101.9	95.8	89.6	87.0	88.0	89.0	90.0	90.9
102.5°	130.6	132.9	135.0	134.3	130.8	127.2	123.8	120.2
105°	153.1	157.2	161.3	164.1	165.4	166.8	168.2	169.5
107.5°	173.5	177.6	181.7	184.3	185.4	186.5	187.5	188.6
110°	186.5	190.2	193.9	196.4	198.0	199.5	201.0	202.5





TEST NUMBER: P333208-940

CATALOG NUMBER: S125DIP-S850D365U940-4F0-1E-UDD-D

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	199.2	202.7	206.2	208.6	209.9	211.2	212.6	213.9
115°	218.8	222.3	225.7	227.8	228.6	229.4	230.2	231.0
117.5°	237.4	240.5	243.6	245.8	247.0	248.3	249.4	250.7
120°	249.4	252.8	256.2	258.3	259.1	260.0	260.9	261.8
122.5°	260.6	263.8	266.9	268.9	269.7	270.5	271.4	272.2
125°	277.0	280.0	283.0	284.9	285.7	286.5	287.4	288.2
127.5°	291.4	294.3	297.1	298.9	299.6	300.3	301.0	301.7
130°	301.3	304.0	306.7	308.4	309.0	309.7	310.4	311.0
132.5°	310.0	312.9	315.8	317.4	317.9	318.4	319.0	319.4
135°	322.4	324.9	327.4	329.0	329.6	330.2	330.8	331.4
137.5°	334.5	336.9	339.4	340.8	341.3	341.8	342.2	342.7
140°	341.7	344.1	346.5	347.9	348.3	348.7	349.1	349.6
142.5°	349.2	351.2	353.1	354.3	354.7	355.1	355.5	355.9
145°	360.6	361.7	362.7	363.6	363.9	364.4	364.7	365.2
147.5°	370.8	371.2	371.7	371.8	371.7	371.5	371.4	371.2
150°	377.6	377.7	377.8	377.7	377.4	377.0	376.7	376.3
152.5°	384.1	384.2	384.4	384.2	383.8	383.3	382.9	382.4
155°	393.2	393.3	393.6	393.4	392.9	392.3	391.7	391.2
157.5°	400.6	400.8	401.1	400.9	400.4	399.8	399.2	398.7
160°	405.3	405.6	405.8	405.7	405.1	404.6	404.0	403.5
162.5°	409.6	409.9	410.4	410.2	409.6	408.9	408.4	407.8
165°	415.0	415.4	415.9	415.8	415.3	414.6	414.1	413.6
167.5°	419.2	419.6	420.2	420.1	419.5	418.8	418.2	417.6
170°	421.2	421.9	422.4	422.4	421.8	421.2	420.4	419.8
172.5°	422.9	423.5	423.9	423.9	423.3	422.6	422.0	421.3
175°	424.7	425.3	425.9	425.9	425.2	424.5	423.9	423.3
177.5°	425.5	425.9	426.2	426.2	425.8	425.3	424.9	424.5
180°	425.2	425.2	425.2	425.2	425.2	425.2	425.2	425.2

(END OF REPORT)