

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: P333228-940

Luminaire Tested: **S125DIP-S850D810U940-4F0-1E-UDD-D4**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P333228-940
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-19,
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S125DIP-S850D810U940-4F0-1E-UDD-D4
Description: DEFINE 5 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 850 LUMENS PER FOOT, DROP SATIN WHITE DIFFUSER
UPLIGHT 810 LUMENS PER FOOT, BATWING OPTIC
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5521.1 lumens
Efficiency: N/A
Efficacy: 120.3 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

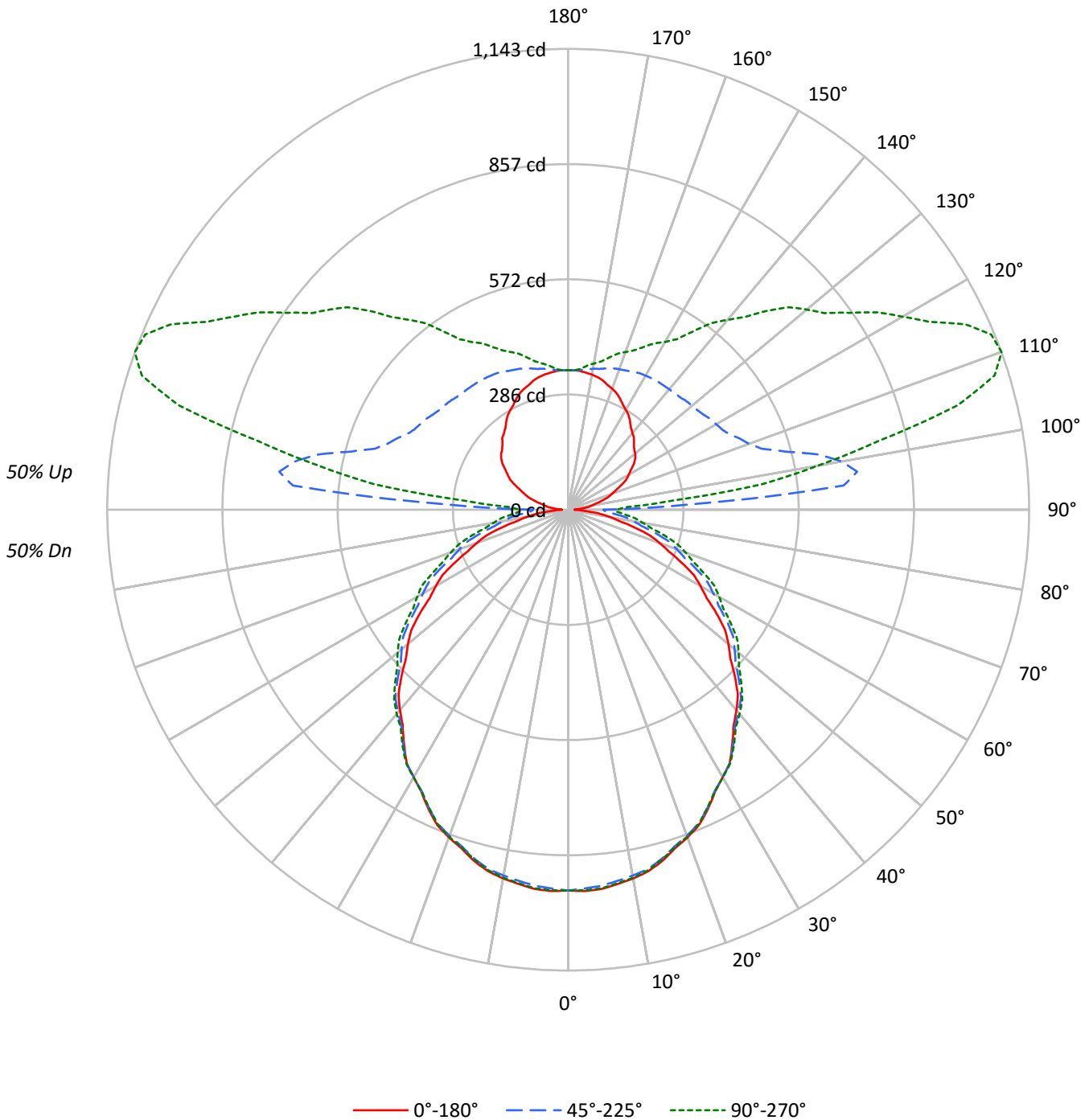
Input Watts (W): 45.9
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P333228-940

CATALOG NUMBER: S125DIP-S850D810U940-4F0-1E-UDD-D4

Luminous Intensity Polar Plot





TEST NUMBER: P333228-940

CATALOG NUMBER: S125DIP-S850D810U940-4F0-1E-UDD-D4

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	107	107	107	107	99	99	99	99	83	83	83		69	69	69		56	56	56	50
1	97	92	88	84	89	85	82	78	72	69	67		60	58	56		48	47	46	40
2	88	80	74	68	81	74	68	64	63	58	55		52	49	46		42	40	38	33
3	80	70	63	57	73	65	58	53	55	50	46		46	42	39		37	34	32	28
4	73	62	54	48	67	57	50	45	49	43	39		41	36	33		33	30	27	24
5	67	55	47	41	62	51	44	38	43	38	33		36	32	28		30	26	24	20
6	62	49	41	35	57	46	38	33	39	33	29		33	28	25		27	23	21	18
7	57	45	36	31	52	41	34	29	35	30	25		30	25	22		24	21	18	16
8	53	40	33	27	49	38	30	26	32	27	22		27	23	19		22	19	16	14
9	49	37	29	24	45	34	27	23	29	24	20		25	21	17		21	17	15	13
10	46	34	26	22	42	31	25	20	27	22	18		23	19	16		19	16	13	11

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



TEST NUMBER: P333228-940

CATALOG NUMBER: S125DIP-S850D810U940-4F0-1E-UDD-D4

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	89.3	1.6
10°-20°	253.6	4.6
20°-30°	377.1	6.8
30°-40°	446.7	8.1
40°-50°	461.8	8.4
50°-60°	425.4	7.7
60°-70°	343.9	6.2
70°-80°	230.3	4.2
80°-90°	121.4	2.2
90°-100°	317.7	5.8
100°-110°	588.3	10.7
110°-120°	538.8	9.8
120°-130°	428.6	7.8
130°-140°	337.1	6.1
140°-150°	249.9	4.5
150°-160°	174.7	3.2
160°-170°	103.0	1.9
170°-180°	33.5	0.6
0°-30°	720.0	13.0
0°-40°	1166.7	21.1
0°-60°	2053.9	37.2
0°-90°	2749.5	49.8
90°-120°	1444.8	26.2
90°-150°	2460.4	44.6
90°-180°	2772.0	50.2
0°-180°	5521.1	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°	16	51	87	111	120	11
95°	35	104	685	368	258	34
105°	87	134	556	1064	1000	92
115°	146	183	442	927	1087	144
125°	199	232	410	731	852	176
135°	230	276	394	602	698	179
145°	267	305	388	487	540	167
155°	304	327	378	427	446	140
165°	332	341	363	385	390	93
175°	345	345	348	352	351	33
180°	346	346	346	346	346	



TEST NUMBER: P333228-940

CATALOG NUMBER: S125DIP-S850D810U940-4F0-1E-UDD-D4

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	42.6	49.5	56.4	63.4	70.5	77.8	85.0	92.3	97.1
90°	15.5	22.8	30.8	38.8	46.7	54.9	62.6	71.0	78.7	87.1	92.6
92.5°	21.8	29.8	41.7	56.4	74.5	101.5	146.8	217.8	294.3	297.7	259.5
95°	35.0	41.1	52.0	65.0	85.7	123.3	204.9	365.2	564.7	685.4	676.6
97.5°	49.1	54.8	63.5	76.0	94.6	123.0	179.1	298.3	506.3	722.6	832.1
100°	59.0	64.7	71.8	83.8	101.4	127.8	174.8	272.0	454.3	688.8	867.5
102.5°	70.0	74.8	81.1	93.3	109.3	134.9	177.4	259.8	414.6	632.9	841.0
105°	87.1	90.4	97.2	107.5	121.9	146.2	183.0	251.3	373.9	556.4	760.6
107.5°	103.9	108.1	114.2	122.7	137.1	159.0	194.7	253.7	354.6	503.0	679.8
110°	115.9	119.8	125.1	133.8	146.8	169.0	203.3	257.2	347.3	477.2	633.1



TEST NUMBER: P333228-940

CATALOG NUMBER: S125DIP-S850D810U940-4F0-1E-UDD-D4

CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	128.8	132.2	136.3	144.6	157.0	178.4	211.4	262.3	344.6	460.8	597.6
115°	146.4	149.3	152.8	160.5	172.4	193.2	224.4	270.1	342.4	441.9	557.9
117.5°	162.2	165.2	168.4	175.7	188.4	208.3	237.8	279.6	342.9	430.3	532.2
120°	173.3	176.0	179.5	186.4	198.9	218.9	248.1	286.2	344.7	424.0	517.5
122.5°	184.3	186.2	188.7	195.2	208.5	228.4	257.3	293.6	345.8	418.3	504.3
125°	198.9	200.1	203.4	209.5	222.5	242.5	269.7	303.8	348.4	410.4	486.2
127.5°	209.6	211.4	215.7	223.5	237.4	257.1	282.6	313.6	352.2	404.4	469.1
130°	216.9	218.7	224.1	232.9	247.4	266.8	291.3	320.7	355.0	401.1	458.3
132.5°	221.7	224.3	231.0	241.0	256.2	275.4	299.3	326.3	357.7	398.1	448.7
135°	230.5	233.1	241.3	252.3	266.7	286.1	309.2	333.6	360.9	393.7	436.0
137.5°	241.8	243.7	251.4	262.3	276.5	296.2	316.6	339.3	364.5	391.2	425.4
140°	247.7	249.9	258.2	269.4	282.6	301.6	322.0	343.0	365.6	389.5	419.6
142.5°	255.6	256.9	264.6	275.5	288.1	305.8	324.9	344.7	366.0	388.6	415.1
145°	267.2	268.5	275.2	284.8	297.1	313.1	331.2	348.6	367.5	387.6	409.6
147.5°	278.6	279.5	285.4	294.5	305.4	319.5	335.4	351.2	368.1	385.8	404.6
150°	285.9	287.2	292.1	301.2	310.9	322.8	338.1	352.8	368.1	384.1	400.9
152.5°	293.6	294.5	298.8	306.7	316.0	326.7	340.9	353.9	367.6	381.9	397.0
155°	304.0	304.0	308.2	315.1	322.1	331.9	343.8	354.9	366.0	377.9	390.5
157.5°	313.2	313.1	316.4	322.4	328.5	335.9	346.1	355.6	364.3	373.7	384.3
160°	319.3	318.6	321.5	326.3	331.9	338.1	347.2	355.6	362.6	371.0	379.3
162.5°	324.3	323.7	326.5	330.7	335.2	340.4	348.3	355.0	360.9	367.6	374.8
165°	331.9	330.5	332.6	336.1	338.9	343.0	348.6	354.2	358.4	362.6	368.1
167.5°	336.9	336.2	337.4	339.4	341.3	344.0	348.6	352.5	354.5	357.7	361.6
170°	340.3	339.6	340.3	341.6	343.0	345.1	348.6	351.4	352.8	354.9	357.7
172.5°	342.5	341.3	341.9	343.3	344.1	345.1	348.0	350.3	350.5	351.5	353.7
175°	345.1	343.8	344.5	345.1	345.1	345.1	347.2	348.6	347.9	347.9	348.6
177.5°	346.3	345.3	345.3	345.8	345.3	345.3	346.3	347.0	345.8	345.8	346.3
180°	345.8	345.8	345.8	345.8	345.8	345.8	345.8	345.8	345.8	345.8	345.8



TEST NUMBER: P333228-940

CATALOG NUMBER: S125DIP-S850D810U940-4F0-1E-UDD-D4

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°	102.0	106.8	111.7	115.1	116.5	118.0	119.6	121.0
90°	98.0	103.3	108.8	113.3	114.8	116.2	118.3	119.8
92.5°	205.6	176.4	158.7	151.4	143.9	143.7	144.2	144.5
95°	578.0	476.5	395.3	339.7	291.7	272.2	268.0	258.3
97.5°	818.2	748.2	669.0	590.4	548.8	511.1	492.2	484.7
100°	925.5	895.6	828.1	758.4	711.6	662.6	638.0	628.1
102.5°	959.6	984.8	954.5	908.1	857.9	823.4	796.7	789.5
105°	932.1	1031.7	1066.5	1061.7	1040.7	1019.2	1006.7	999.8
107.5°	848.9	980.4	1063.3	1102.3	1114.9	1116.1	1112.8	1108.5
110°	787.6	924.0	1026.2	1088.2	1121.0	1135.7	1142.0	1143.4



TEST NUMBER: P333228-940

CATALOG NUMBER: S125DIP-S850D810U940-4F0-1E-UDD-D4

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	738.6	868.1	971.3	1043.7	1091.0	1115.3	1128.8	1135.2
115°	676.6	788.4	887.6	966.1	1021.7	1056.4	1077.2	1087.4
117.5°	634.6	731.3	817.1	889.2	945.0	981.0	1001.7	1008.8
120°	611.6	698.7	779.0	842.7	895.5	930.2	950.3	957.1
122.5°	593.3	674.1	745.8	805.5	852.7	884.7	904.7	911.0
125°	566.9	641.2	705.2	757.6	797.6	827.2	843.6	851.6
127.5°	539.8	609.2	668.9	718.0	754.6	781.0	796.7	800.9
130°	523.3	587.5	644.8	692.1	727.9	752.0	767.0	772.1
132.5°	506.4	566.7	618.9	664.5	700.2	724.1	737.8	743.3
135°	483.4	534.1	581.5	623.0	654.8	678.8	692.4	697.6
137.5°	464.2	505.5	545.1	580.4	608.8	630.4	642.8	648.3
140°	453.3	488.3	522.6	553.5	580.1	599.1	610.4	614.7
142.5°	443.9	473.6	503.1	529.9	552.6	568.7	579.5	583.3
145°	432.2	454.9	477.5	497.3	514.9	527.5	536.0	539.7
147.5°	422.0	439.8	456.7	471.4	484.9	494.8	499.6	501.2
150°	416.3	431.6	444.8	457.4	468.1	476.7	479.7	480.6
152.5°	410.6	424.4	436.5	446.2	455.0	461.8	464.7	465.4
155°	402.3	413.5	423.2	430.9	437.8	442.7	444.8	445.5
157.5°	394.0	403.1	410.6	416.7	422.1	426.1	428.1	427.9
160°	388.3	395.3	402.3	407.2	412.1	415.5	417.0	416.3
162.5°	382.2	388.6	394.5	398.8	402.6	405.5	405.8	405.6
165°	373.7	378.6	382.8	386.3	389.1	390.5	390.5	390.5
167.5°	365.6	368.8	372.0	374.5	375.9	377.2	376.7	376.5
170°	361.1	363.3	365.3	366.8	368.1	368.8	368.8	368.1
172.5°	356.1	358.2	359.8	360.6	360.9	362.1	361.1	360.3
175°	350.7	350.7	352.1	352.1	352.1	352.8	351.4	350.7
177.5°	347.0	347.5	347.5	347.5	347.0	347.5	345.8	345.8
180°	345.8	345.8	345.8	345.8	345.8	345.8	345.8	345.8

(END OF REPORT)