

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: P333237-940

Luminaire Tested: **S125DIP-S850D1035U940-4F0-1E-UDD-D4**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P333237-940  
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-S850D1035U940-4F0-1E-UDD-D4  
Description: DEFINE 5 DIRECT-INDIRECT PENDANT LED LUMINAIRE  
DOWNLIGHT 850 LUMENS PER FOOT, DROP SATIN WHITE DIFFUSER  
UPLIGHT 1035 LUMENS PER FOOT, BATWING OPTIC  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 6239.3 lumens  
Efficiency: N/A  
Efficacy: 120.0 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

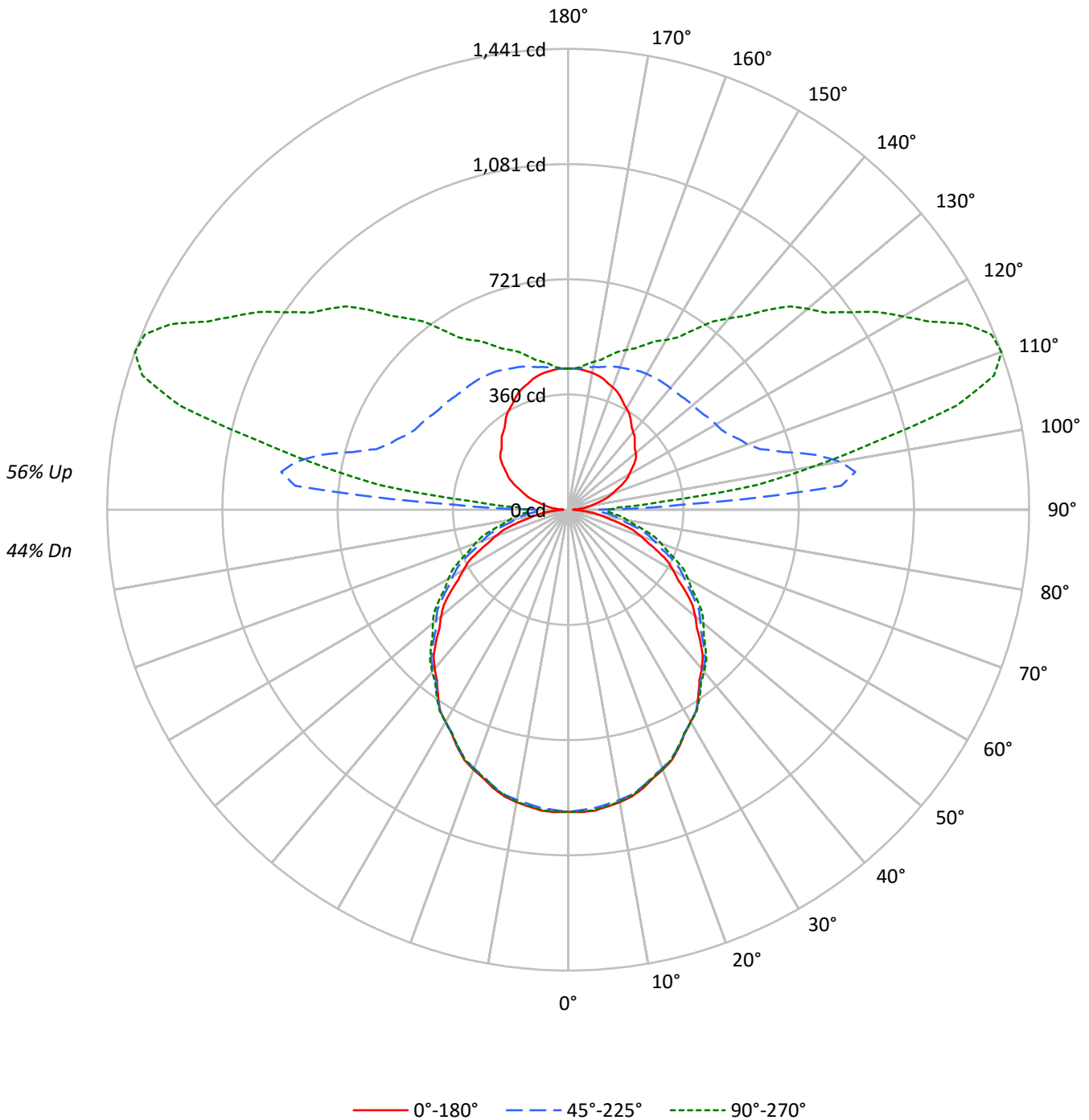
Input Watts (W): 52  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	106	106	106	106	97	97	97	97	80	80	80	65	65	65	51	51	51	44
1	96	91	87	83	87	84	80	77	69	67	64	56	54	53	44	43	41	36
2	87	79	73	68	79	73	67	62	60	56	53	49	46	43	38	36	34	29
3	79	69	62	56	72	64	57	52	53	48	44	43	39	36	34	31	29	25
4	72	61	53	47	66	56	49	44	47	41	37	38	34	31	30	27	25	21
5	66	54	46	40	60	50	43	37	42	36	32	34	30	27	27	24	21	18
6	61	49	41	35	55	45	38	32	38	32	28	31	26	23	24	21	19	16
7	56	44	36	30	51	40	33	28	34	28	24	28	24	20	22	19	17	14
8	52	40	32	27	48	37	30	25	31	25	22	25	21	18	20	17	15	12
9	49	36	29	24	44	34	27	22	28	23	19	23	19	16	19	16	13	11
10	45	33	26	21	41	31	24	20	26	21	17	22	18	15	17	14	12	10

**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	1.4
10°-20°	253.6	4.1
20°-30°	377.1	6.0
30°-40°	446.7	7.2
40°-50°	461.8	7.4
50°-60°	425.4	6.8
60°-70°	343.9	5.5
70°-80°	230.3	3.7
80°-90°	121.9	2.0
90°-100°	387.0	6.2
100°-110°	737.4	11.8
110°-120°	678.8	10.9
120°-130°	542.1	8.7
130°-140°	428.1	6.9
140°-150°	318.6	5.1
150°-160°	223.1	3.6
160°-170°	131.5	2.1
170°-180°	42.8	0.7
0°-30°	720.0	11.5
0°-40°	1166.7	18.7
0°-60°	2053.9	32.9
0°-90°	2750.0	44.1
90°-120°	1803.2	28.9
90°-150°	3092.0	49.6
90°-180°	3489.0	55.9
0°-180°	6239.3	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	53	90	115	124	12
95°	41	123	856	445	304	41
105°	109	164	696	1340	1255	115
115°	185	230	554	1169	1372	182
125°	253	296	518	924	1076	224
135°	294	352	501	764	884	228
145°	341	390	495	621	687	213
155°	388	418	482	545	569	179
165°	424	435	463	491	498	119
175°	441	441	444	450	448	42
180°	442	442	442	442	442	



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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	42.8	49.8	56.6	63.8	71.0	78.3	85.5	92.8	97.8
90°	15.7	23.2	31.6	39.9	48.2	56.9	64.7	73.5	81.4	90.2	95.8
92.5°	24.2	32.6	46.2	63.3	84.7	117.3	173.1	261.8	357.4	360.0	309.9
95°	41.4	47.6	60.1	75.3	100.2	146.4	248.7	451.5	704.2	856.3	843.9
97.5°	59.7	65.6	75.3	90.0	112.4	147.0	216.9	367.1	630.9	905.3	1043.8
100°	72.5	78.6	86.5	100.6	121.8	154.0	212.2	334.5	565.4	863.1	1089.9
102.5°	86.7	91.8	98.6	113.1	132.6	163.8	216.2	319.8	515.6	792.5	1056.9
105°	109.0	112.2	119.9	132.2	149.7	179.3	224.7	310.0	464.9	696.3	955.9
107.5°	130.6	135.2	142.2	152.4	170.0	196.7	240.6	314.3	441.5	629.4	853.8
110°	146.2	150.5	156.5	167.0	182.8	210.1	252.4	319.5	433.0	597.2	795.1



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	162.6	166.4	171.2	181.2	196.5	222.7	263.4	326.9	430.2	577.1	750.7
115°	185.4	188.6	192.7	202.2	217.0	242.6	280.9	337.9	428.6	554.2	701.2
117.5°	205.8	209.5	213.2	222.2	238.3	262.8	299.0	351.1	430.4	540.6	669.7
120°	220.1	223.4	227.5	236.1	251.9	276.8	312.7	360.2	433.5	533.4	651.8
122.5°	234.3	236.5	239.7	248.0	264.8	289.4	325.2	370.3	435.6	526.9	635.8
125°	253.0	254.5	258.8	266.6	283.3	308.4	341.9	384.2	440.1	518.0	613.9
127.5°	266.8	269.3	274.7	284.7	302.5	327.2	358.9	397.5	445.9	511.7	593.3
130°	276.1	278.5	285.4	296.9	315.3	339.7	370.2	407.0	449.9	508.0	580.3
132.5°	282.4	285.8	294.3	307.3	326.6	350.8	380.7	414.6	454.0	505.0	568.8
135°	293.8	297.2	307.6	321.7	340.2	364.8	393.9	424.7	459.1	500.6	554.0
137.5°	308.3	310.8	320.6	334.7	352.8	377.8	403.6	432.5	464.5	498.3	541.4
140°	316.0	318.7	329.4	343.7	360.5	384.7	410.7	437.7	466.3	496.8	534.7
142.5°	326.0	327.8	337.6	351.7	367.7	390.3	414.7	440.1	467.2	496.1	529.3
145°	341.0	342.5	351.2	363.5	379.3	399.7	422.8	445.1	469.1	494.9	522.6
147.5°	355.7	356.8	364.4	376.0	389.9	407.9	428.2	448.3	470.0	492.6	516.5
150°	365.0	366.8	373.0	384.6	397.0	412.1	431.8	450.4	470.0	490.4	511.8
152.5°	375.0	376.0	381.6	391.6	403.4	417.1	435.3	451.8	469.3	487.7	506.8
155°	388.1	388.1	393.4	402.3	411.3	423.7	438.8	453.1	467.3	482.5	498.5
157.5°	399.8	399.7	403.9	411.6	419.5	428.9	441.8	454.0	465.0	477.2	490.6
160°	407.7	406.8	410.4	416.6	423.7	431.8	443.3	454.0	462.9	473.6	484.3
162.5°	414.1	413.2	416.8	422.3	428.0	434.6	444.7	453.3	460.7	469.3	478.6
165°	423.7	422.0	424.6	429.1	432.7	438.0	445.1	452.2	457.5	462.9	470.0
167.5°	430.2	429.3	430.9	433.4	435.9	439.2	445.1	450.0	452.5	456.6	461.6
170°	434.4	433.5	434.4	436.2	438.0	440.6	445.1	448.6	450.4	453.1	456.6
172.5°	437.3	435.7	436.6	438.3	439.3	440.6	444.3	447.2	447.5	448.8	451.7
175°	440.6	438.8	439.7	440.6	440.6	440.6	443.3	445.1	444.2	444.2	445.1
177.5°	442.2	440.8	440.8	441.5	440.8	440.8	442.2	442.9	441.5	441.5	442.2
180°	441.5	441.5	441.5	441.5	441.5	441.5	441.5	441.5	441.5	441.5	441.5



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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°	102.7	107.6	112.5	115.9	117.4	118.9	120.5	121.9
90°	101.4	107.1	112.7	117.5	119.0	120.4	122.8	124.2
92.5°	239.9	201.2	177.5	167.3	157.3	156.6	156.8	156.9
95°	716.7	585.9	481.0	409.1	347.4	322.2	316.5	303.6
97.5°	1024.8	934.2	832.0	730.8	677.2	628.7	604.3	594.3
100°	1162.8	1123.6	1036.2	946.4	886.2	823.3	791.6	778.6
102.5°	1207.3	1238.3	1198.5	1138.5	1074.1	1029.7	995.1	985.7
105°	1173.7	1299.8	1343.0	1336.0	1308.9	1281.0	1264.6	1255.4
107.5°	1068.7	1235.6	1340.2	1389.3	1405.0	1406.1	1401.5	1395.7
110°	991.4	1164.4	1293.9	1372.2	1413.6	1432.0	1439.7	1441.2





TEST NUMBER: P333237-940

CATALOG NUMBER: S125DIP-S850D1035U940-4F0-1E-UDD-D4

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	929.7	1094.0	1224.7	1316.5	1376.5	1406.9	1423.9	1431.7
115°	851.8	993.5	1119.1	1218.6	1289.3	1333.3	1359.4	1372.3
117.5°	799.6	922.0	1030.6	1122.0	1192.8	1238.4	1264.5	1273.1
120°	771.0	881.3	982.8	1063.5	1130.5	1174.5	1199.8	1208.1
122.5°	748.5	850.8	941.4	1017.0	1077.0	1117.4	1142.6	1150.3
125°	716.0	810.1	890.8	957.1	1008.0	1045.4	1066.1	1076.0
127.5°	682.8	770.5	845.9	907.9	954.4	987.8	1007.5	1012.6
130°	662.4	743.6	815.9	875.7	921.3	951.7	970.5	976.9
132.5°	641.6	717.8	783.7	841.3	886.7	916.9	934.2	941.1
135°	613.6	677.7	737.4	790.0	830.2	860.6	877.6	884.0
137.5°	590.2	642.3	692.1	736.8	772.7	800.2	815.8	822.5
140°	576.9	621.1	664.3	703.2	737.0	761.0	775.2	780.4
142.5°	565.6	603.0	640.2	674.0	702.7	723.1	736.6	741.1
145°	551.3	579.9	608.5	633.5	655.7	671.6	682.2	686.6
147.5°	538.5	561.2	582.7	601.3	618.6	631.1	637.1	639.1
150°	531.5	551.0	567.9	584.1	597.6	608.5	612.2	613.4
152.5°	524.3	541.7	557.2	569.7	580.9	589.6	593.2	594.1
155°	513.6	527.9	540.4	550.1	559.0	565.3	567.9	568.8
157.5°	502.9	514.7	524.3	532.0	539.0	544.0	546.5	546.4
160°	495.8	504.7	513.6	519.9	526.1	530.6	532.4	531.5
162.5°	488.0	496.1	503.6	509.2	514.0	517.7	518.1	517.9
165°	477.2	483.4	488.7	493.1	496.7	498.5	498.5	498.5
167.5°	466.8	470.9	475.0	478.2	480.0	481.6	480.9	480.7
170°	461.1	463.8	466.5	468.2	470.0	470.9	470.9	470.0
172.5°	454.7	457.4	459.3	460.4	460.7	462.4	460.9	460.0
175°	447.7	447.7	449.5	449.5	449.5	450.4	448.6	447.7
177.5°	442.9	443.6	443.6	443.6	442.9	443.6	441.5	441.5
180°	441.5	441.5	441.5	441.5	441.5	441.5	441.5	441.5

(END OF REPORT)