

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: P333229-930

Luminaire Tested: **S125DIP-S850D810U930-4F0-1E-UDD-F**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P333229-930
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-S850D810U930-4F0-1E-UDD-F
Description: DEFINE 5 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 850 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER
UPLIGHT 810 LUMENS PER FOOT, NO LENS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5428.1 lumens
Efficiency: N/A
Efficacy: 118.3 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.18 / 1.31
Luminous Opening: Rectangular (W 0.42' x L: 4' x H: 0')
CIE Type: General Diffuse

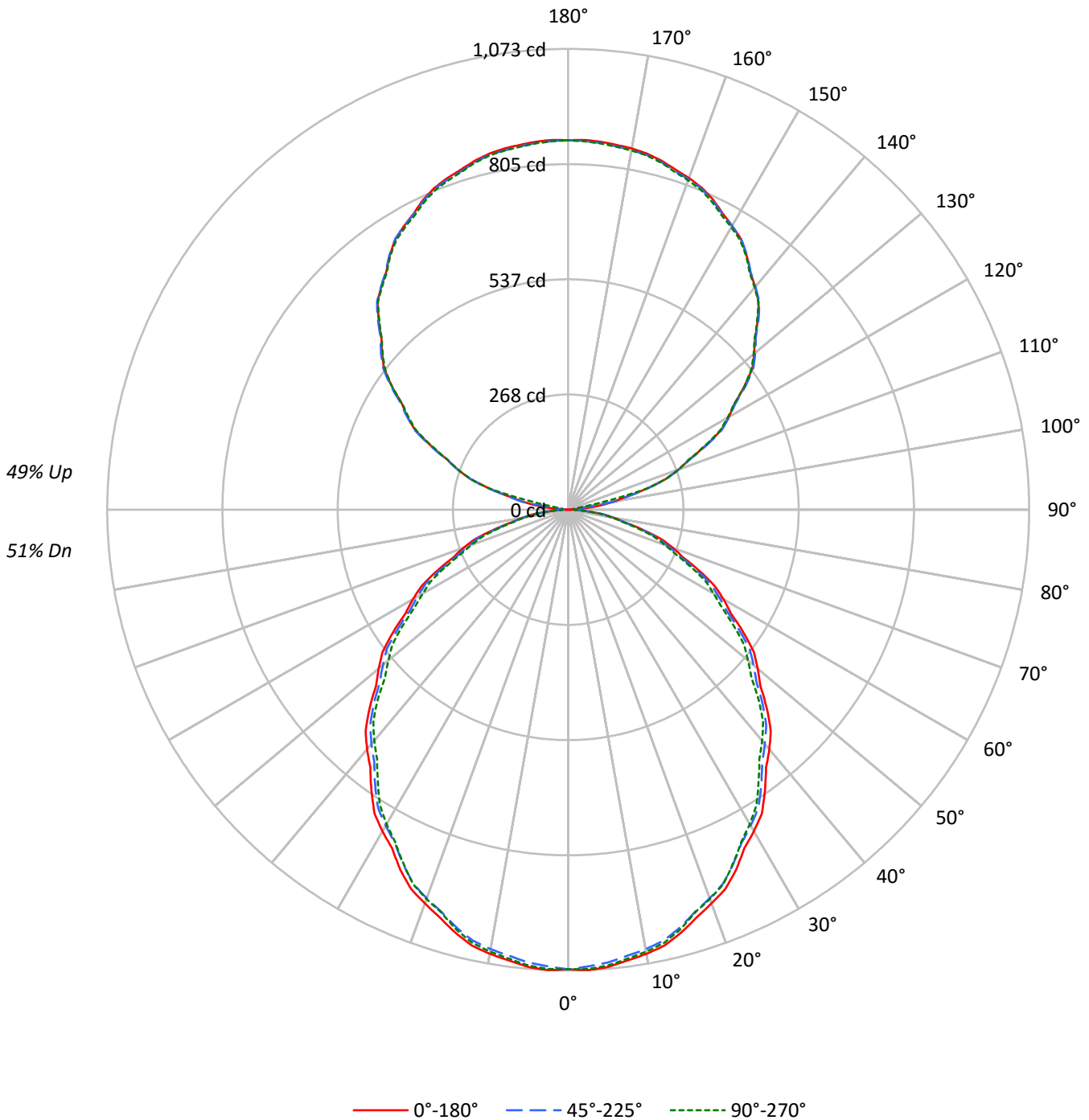
Input Watts (W): 45.9
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P333229-930

CATALOG NUMBER: S125DIP-S850D810U930-4F0-1E-UDD-F

Luminous Intensity Polar Plot





TEST NUMBER: P333229-930

CATALOG NUMBER: S125DIP-S850D810U930-4F0-1E-UDD-F

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	84	84	84	70	70	70	57	57	57	51
1	98	94	90	86	90	87	83	80	74	71	69	62	60	58	51	49	48	43
2	89	82	76	70	82	76	70	66	64	60	57	54	51	49	44	42	41	36
3	81	72	64	59	75	67	60	55	57	52	48	48	44	41	39	37	35	30
4	74	64	56	50	68	59	52	47	50	45	41	43	38	35	35	32	30	26
5	68	57	48	42	63	53	45	40	45	40	35	38	34	30	32	28	26	23
6	63	51	43	37	58	47	40	35	41	35	31	35	30	27	29	25	23	20
7	58	46	38	32	54	43	36	30	37	31	27	31	27	24	26	23	20	18
8	54	42	34	29	50	39	32	27	34	28	24	29	24	21	24	21	18	16
9	50	38	30	25	46	36	29	24	31	25	21	26	22	19	22	19	16	14
10	47	35	28	23	43	33	26	22	28	23	19	24	20	17	21	17	15	13

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	6912	6912	6912
5°	6928	6862	6906
10°	6885	6813	6852
15°	6811	6731	6760
20°	6704	6616	6628
25°	6589	6480	6475
30°	6447	6334	6302
35°	6296	6176	6089
40°	6139	6004	5918
45°	5971	5847	5731
50°	5785	5657	5488
55°	5606	5444	5291
60°	5391	5227	5043
65°	5136	4968	4800
70°	4893	4670	4509
75°	4457	4312	4162
80°	3968	3905	3812
85°	3453	3520	3320



TEST NUMBER: P333229-930

CATALOG NUMBER: S125DIP-S850D810U930-4F0-1E-UDD-F

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	100.9	1.9
10°-20°	285.1	5.3
20°-30°	420.9	7.8
30°-40°	491.1	9.0
40°-50°	493.3	9.1
50°-60°	433.0	8.0
60°-70°	322.6	5.9
70°-80°	184.5	3.4
80°-90°	55.5	1.0
90°-100°	31.3	0.6
100°-110°	192.6	3.5
110°-120°	349.4	6.4
120°-130°	448.4	8.3
130°-140°	482.3	8.9
140°-150°	452.7	8.3
150°-160°	366.2	6.7
160°-170°	236.8	4.4
170°-180°	81.7	1.5
0°-30°	806.9	14.9
0°-40°	1298.0	23.9
0°-60°	2224.3	41.0
0°-90°	2786.8	51.3
90°-120°	573.3	10.6
90°-150°	1956.6	36.0
90°-180°	2641.0	48.7
0°-180°	5428.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1070	1070	1070	1070	1070	
5°	1069	1066	1058	1066	1065	101
15°	1019	1016	1007	1011	1011	287
25°	925	920	909	911	909	425
35°	798	795	783	779	772	499
45°	654	650	640	630	628	504
55°	498	495	484	476	470	444
65°	336	334	325	318	314	333
75°	179	177	173	170	167	190
85°	47	47	48	46	45	52
90°	1	6	10	13	15	4
95°	36	33	10	13	13	46
105°	187	190	190	190	189	199
115°	352	355	356	353	349	349
125°	500	505	505	502	500	447
135°	624	628	627	625	622	481
145°	724	725	725	725	722	452
155°	797	793	794	796	791	367
165°	841	837	838	841	836	237
175°	860	857	857	861	856	82
180°	860	860	860	860	860	



TEST NUMBER: P333229-930

CATALOG NUMBER: S125DIP-S850D810U930-4F0-1E-UDD-F

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1070.2	1070.2	1070.2	1070.2	1070.2	1070.2	1070.2	1070.2	1070.2	1070.2	1070.2
2.5°	1073.0	1072.5	1072.1	1071.6	1071.1	1070.2	1068.7	1067.2	1065.7	1064.2	1065.7
5°	1068.6	1068.2	1067.8	1067.5	1067.1	1065.9	1064.0	1062.2	1060.3	1058.4	1060.1
7.5°	1058.7	1058.4	1058.0	1057.6	1057.3	1056.1	1053.9	1051.9	1049.9	1047.7	1049.4
10°	1049.9	1049.6	1049.2	1048.8	1048.5	1047.3	1045.1	1043.1	1041.1	1038.9	1040.5
12.5°	1039.1	1038.4	1037.8	1037.1	1036.4	1035.1	1033.2	1031.3	1029.3	1027.4	1028.7
15°	1018.6	1018.1	1017.5	1016.9	1016.4	1015.0	1013.0	1010.9	1008.9	1006.7	1007.7
17.5°	995.1	994.3	993.4	992.6	991.8	990.3	988.1	986.0	983.8	981.7	982.8
20°	975.4	975.1	974.7	974.3	974.0	972.5	970.0	967.6	965.2	962.7	964.1
22.5°	955.8	955.1	954.5	953.7	953.1	951.6	949.3	947.0	944.7	942.4	943.3
25°	924.6	923.7	922.8	921.8	920.9	919.2	916.7	914.3	911.8	909.4	909.8
27.5°	888.2	887.7	887.1	886.6	886.0	884.4	881.9	879.4	876.9	874.3	874.4
30°	864.5	864.0	863.4	862.8	862.3	860.5	857.8	854.9	852.1	849.3	848.9
32.5°	838.8	837.9	837.1	836.2	835.4	833.6	831.1	828.6	826.1	823.5	822.9
35°	798.5	797.7	797.0	796.2	795.5	793.8	791.2	788.5	785.9	783.3	782.3
37.5°	756.7	755.7	754.7	753.8	752.8	751.1	748.7	746.2	743.7	741.3	739.8
40°	728.2	727.2	726.4	725.4	724.4	722.7	720.0	717.4	714.8	712.1	710.5
42.5°	697.7	696.9	696.1	695.4	694.6	692.8	690.2	687.5	684.9	682.3	680.8
45°	653.7	652.9	652.2	651.4	650.7	649.1	646.9	644.7	642.4	640.2	637.9
47.5°	606.3	606.3	606.3	606.3	606.4	605.1	602.3	599.7	597.0	594.3	591.9
50°	575.8	575.2	574.6	574.1	573.6	572.1	569.9	567.6	565.3	563.0	560.6
52.5°	544.6	544.2	543.8	543.4	543.0	541.5	539.2	536.7	534.3	531.9	529.8
55°	497.9	497.3	496.8	496.2	495.6	494.0	491.4	488.8	486.1	483.5	481.8
57.5°	448.6	448.3	448.0	447.7	447.4	446.1	443.9	441.7	439.4	437.2	435.0
60°	417.4	416.7	416.0	415.2	414.4	413.0	410.9	408.9	406.8	404.7	402.8
62.5°	384.9	384.3	383.8	383.1	382.5	381.3	379.6	377.8	376.0	374.2	372.3
65°	336.1	335.7	335.4	335.0	334.7	333.5	331.3	329.3	327.2	325.1	323.4
67.5°	288.9	288.1	287.3	286.5	285.8	284.5	283.1	281.5	280.0	278.4	277.0
70°	259.1	258.1	257.2	256.2	255.4	254.0	252.3	250.6	248.9	247.3	246.1
72.5°	226.6	225.9	225.3	224.7	224.0	223.1	222.1	220.9	219.9	218.8	217.5
75°	178.6	178.3	177.9	177.6	177.2	176.5	175.5	174.6	173.7	172.8	172.2
77.5°	134.4	134.3	134.2	134.0	133.9	133.5	133.0	132.5	131.9	131.4	131.1
80°	106.7	106.7	106.7	106.7	106.7	106.5	106.2	105.7	105.3	105.0	104.8
82.5°	82.3	82.0	81.7	81.4	81.1	80.9	80.8	80.8	80.7	80.6	80.3
85°	46.6	46.8	47.0	47.1	47.3	47.5	47.5	47.5	47.5	47.5	47.2
87.5°	18.4	18.7	18.8	19.1	19.3	19.5	19.5	19.6	19.6	19.6	19.8
90°	0.7	1.8	2.9	4.1	5.1	6.2	7.3	8.2	9.2	10.2	10.9
92.5°	9.8	9.0	8.2	7.4	6.7	6.7	7.6	8.5	9.3	10.2	10.9
95°	36.4	36.0	35.5	35.1	34.7	31.7	26.3	21.0	15.6	10.2	10.9
97.5°	75.9	76.6	77.4	78.2	78.9	74.0	63.3	52.7	42.0	31.4	27.4
100°	106.5	106.9	107.3	107.8	108.2	108.7	109.3	109.8	110.4	111.0	89.8
102.5°	137.6	138.1	138.7	139.2	139.7	140.1	140.6	140.9	141.2	141.5	137.5
105°	187.4	188.0	188.6	189.1	189.7	190.0	190.0	190.0	190.0	190.0	190.0
107.5°	239.2	239.2	239.2	239.2	239.2	239.4	239.6	239.9	240.2	240.5	240.5
110°	272.9	272.9	272.9	272.9	272.9	273.0	273.3	273.6	273.9	274.2	273.8



TEST NUMBER: P333229-930

CATALOG NUMBER: S125DIP-S850D810U930-4F0-1E-UDD-F

CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	304.5	304.8	305.2	305.6	305.9	306.1	306.3	306.5	306.6	306.8	306.3
115°	352.0	352.7	353.4	354.1	354.8	355.2	355.4	355.5	355.6	355.8	355.2
117.5°	401.0	401.0	401.0	401.0	401.0	401.2	401.7	402.3	402.8	403.3	402.6
120°	431.6	431.5	431.4	431.2	431.0	431.2	431.6	432.1	432.5	432.9	432.7
122.5°	458.7	459.3	459.7	460.3	460.8	461.2	461.4	461.6	461.8	462.0	461.7
125°	500.5	501.5	502.5	503.5	504.5	505.0	505.0	505.0	505.0	505.0	504.4
127.5°	540.5	541.1	541.8	542.6	543.2	543.6	543.5	543.4	543.3	543.2	542.9
130°	564.9	565.7	566.3	567.0	567.8	568.2	568.3	568.4	568.6	568.8	568.3
132.5°	589.4	590.2	591.0	591.8	592.7	593.0	592.6	592.3	592.0	591.7	591.6
135°	624.2	625.1	625.9	626.8	627.6	627.9	627.6	627.3	627.0	626.8	626.5
137.5°	656.2	657.0	657.7	658.4	659.2	659.4	659.2	658.9	658.7	658.4	658.4
140°	677.1	677.4	677.7	678.0	678.2	678.3	678.2	678.1	677.9	677.8	678.1
142.5°	696.0	696.2	696.3	696.5	696.7	696.8	697.1	697.2	697.5	697.7	697.7
145°	723.7	724.0	724.2	724.6	724.8	725.0	725.0	725.0	725.0	725.0	725.1
147.5°	747.9	747.9	747.8	747.7	747.7	747.7	747.9	748.0	748.3	748.4	748.6
150°	763.2	763.0	762.6	762.4	762.1	762.1	762.4	762.6	763.0	763.2	763.5
152.5°	778.0	777.4	776.7	776.2	775.5	775.3	775.6	775.9	776.2	776.5	776.7
155°	797.0	796.1	795.3	794.4	793.6	793.3	793.6	793.9	794.2	794.4	794.8
157.5°	811.6	811.1	810.7	810.2	809.6	809.3	809.4	809.4	809.4	809.5	809.9
160°	821.9	821.0	820.2	819.3	818.5	818.2	818.2	818.4	818.6	818.6	819.2
162.5°	830.1	829.2	828.3	827.4	826.6	826.3	826.4	826.6	826.7	826.9	827.6
165°	841.0	840.2	839.3	838.5	837.6	837.2	837.4	837.6	837.6	837.8	838.7
167.5°	849.1	848.3	847.4	846.5	845.6	845.3	845.4	845.5	845.7	845.9	846.9
170°	853.8	852.7	851.7	850.8	849.8	849.4	849.5	849.6	849.8	849.9	851.1
172.5°	856.8	855.8	854.8	853.9	852.8	852.5	852.7	853.0	853.2	853.5	854.5
175°	860.1	859.2	858.4	857.6	856.7	856.4	856.5	856.6	856.8	857.0	858.1
177.5°	861.7	861.0	860.3	859.7	858.9	858.7	858.8	858.8	859.0	859.1	859.9
180°	860.1	860.1	860.1	860.1	860.1	860.1	860.1	860.1	860.1	860.1	860.1



TEST NUMBER: P333229-930

CATALOG NUMBER: S125DIP-S850D810U930-4F0-1E-UDD-F

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	1070.2	1070.2	1070.2	1070.2	1070.2	1070.2	1070.2	1070.2
2.5°	1067.2	1068.7	1070.2	1070.9	1070.7	1070.6	1070.4	1070.2
5°	1061.8	1063.5	1065.2	1065.9	1065.8	1065.6	1065.4	1065.2
7.5°	1051.1	1052.7	1054.3	1055.1	1054.9	1054.8	1054.5	1054.3
10°	1042.0	1043.5	1045.0	1045.6	1045.5	1045.2	1045.1	1044.9
12.5°	1029.8	1031.0	1032.3	1032.8	1032.8	1032.7	1032.7	1032.7
15°	1008.7	1009.6	1010.6	1011.0	1011.0	1011.0	1011.0	1011.0
17.5°	984.1	985.2	986.3	986.5	985.5	984.6	983.7	982.8
20°	965.4	966.7	968.0	968.2	967.3	966.3	965.4	964.4
22.5°	944.1	945.0	945.9	946.0	945.3	944.7	944.0	943.5
25°	910.1	910.5	910.9	910.8	910.3	909.7	909.1	908.6
27.5°	874.5	874.6	874.7	874.4	873.8	873.3	872.7	872.1
30°	848.6	848.2	847.7	847.3	846.8	846.2	845.6	845.1
32.5°	822.1	821.5	820.8	819.9	819.0	817.9	816.9	816.0
35°	781.4	780.4	779.5	778.3	776.7	775.3	773.7	772.3
37.5°	738.4	737.0	735.6	734.5	733.7	732.8	732.0	731.1
40°	708.7	707.0	705.3	704.2	703.6	703.1	702.5	702.0
42.5°	679.2	677.7	676.1	674.9	674.1	673.2	672.3	671.5
45°	635.6	633.3	631.1	629.7	629.2	628.6	628.0	627.5
47.5°	589.6	587.3	585.1	583.3	582.0	580.7	579.3	578.0
50°	558.2	555.7	553.3	551.4	550.1	548.8	547.5	546.2
52.5°	527.7	525.5	523.3	521.5	520.1	518.6	517.1	515.7
55°	480.1	478.4	476.7	475.2	473.9	472.5	471.2	469.9
57.5°	432.9	430.7	428.5	427.1	426.3	425.7	424.9	424.2
60°	401.0	399.1	397.2	395.6	394.3	393.0	391.7	390.4
62.5°	370.2	368.2	366.2	364.6	363.6	362.6	361.6	360.5
65°	321.8	320.1	318.4	317.2	316.4	315.7	314.9	314.1
67.5°	275.6	274.1	272.7	271.7	271.3	270.8	270.4	269.9
70°	245.0	243.9	242.7	241.8	241.0	240.3	239.5	238.8
72.5°	216.2	215.0	213.7	212.6	211.9	211.2	210.4	209.6
75°	171.6	171.0	170.5	169.8	169.1	168.3	167.5	166.8
77.5°	130.8	130.4	130.0	129.6	129.1	128.6	128.1	127.5
80°	104.6	104.4	104.3	104.0	103.6	103.2	102.8	102.5
82.5°	79.9	79.6	79.2	79.1	79.0	78.9	78.8	78.8
85°	47.0	46.9	46.6	46.4	46.0	45.7	45.2	44.8
87.5°	20.0	20.1	20.2	20.2	20.0	19.7	19.6	19.3
90°	11.7	12.3	13.0	13.6	14.0	14.4	14.8	15.3
92.5°	11.7	12.3	13.0	13.5	13.7	13.9	14.1	14.3
95°	11.7	12.3	13.0	13.4	13.4	13.4	13.4	13.4
97.5°	23.4	19.4	15.4	13.4	13.4	13.4	13.4	13.4
100°	68.7	47.6	26.5	15.7	15.1	14.5	13.9	13.4
102.5°	133.5	129.6	125.6	118.8	109.1	99.5	89.8	80.2
105°	190.0	190.0	190.0	190.0	189.8	189.6	189.5	189.4
107.5°	240.6	240.6	240.6	240.4	240.0	239.5	239.1	238.7
110°	273.3	272.9	272.5	272.3	272.5	272.6	272.7	272.9



TEST NUMBER: P333229-930

CATALOG NUMBER: S125DIP-S850D810U930-4F0-1E-UDD-F

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	305.7	305.2	304.7	304.3	304.1	303.9	303.7	303.5
115°	354.7	354.1	353.5	352.8	352.0	351.1	350.3	349.4
117.5°	401.9	401.1	400.4	399.8	399.5	399.1	398.8	398.4
120°	432.4	432.1	431.8	431.3	430.6	429.9	429.2	428.4
122.5°	461.5	461.1	460.9	460.3	459.5	458.7	457.9	457.1
125°	503.9	503.3	502.7	502.2	501.8	501.3	500.9	500.5
127.5°	542.6	542.3	542.0	541.3	540.3	539.2	538.2	537.1
130°	567.9	567.4	567.0	566.5	565.7	565.1	564.4	563.6
132.5°	591.5	591.4	591.3	590.9	590.3	589.5	588.8	588.2
135°	626.2	625.9	625.7	625.1	624.2	623.4	622.5	621.7
137.5°	658.5	658.5	658.6	658.3	657.5	656.8	656.1	655.3
140°	678.3	678.7	678.9	678.7	677.8	676.9	676.0	675.2
142.5°	697.8	697.8	697.9	697.5	696.7	695.8	695.0	694.1
145°	725.2	725.4	725.5	725.1	724.3	723.5	722.6	721.8
147.5°	748.8	748.9	749.1	748.7	747.6	746.7	745.6	744.6
150°	763.8	764.1	764.3	763.9	762.8	761.7	760.5	759.4
152.5°	777.1	777.3	777.6	777.2	776.2	775.2	774.2	773.1
155°	795.3	795.7	796.1	795.8	794.7	793.5	792.4	791.2
157.5°	810.4	810.9	811.3	811.0	809.8	808.7	807.6	806.4
160°	819.8	820.4	820.9	820.7	819.5	818.4	817.3	816.1
162.5°	828.4	829.2	830.0	829.8	828.5	827.3	826.1	824.8
165°	839.5	840.3	841.2	841.1	839.9	838.8	837.6	836.5
167.5°	847.9	848.9	849.9	849.8	848.5	847.3	846.0	844.7
170°	852.2	853.3	854.4	854.4	853.1	851.8	850.5	849.3
172.5°	855.5	856.6	857.6	857.5	856.1	854.9	853.6	852.3
175°	859.2	860.3	861.4	861.4	860.1	858.8	857.6	856.3
177.5°	860.7	861.4	862.3	862.3	861.3	860.4	859.5	858.6
180°	860.1	860.1	860.1	860.1	860.1	860.1	860.1	860.1

(END OF REPORT)