

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: P333271-927

Luminaire Tested: **S125DIP-S1090D810U927-4F0-1E-UDD-D**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P333271-927
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-S1090D810U927-4F0-1E-UDD-D
Description: DEFINE 5 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 1090 LUMENS PER FOOT, DROP SATIN WHITE DIFFUSER
UPLIGHT 810 LUMENS PER FOOT, NO LENS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5946.7 lumens
Efficiency: N/A
Efficacy: 109.3 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

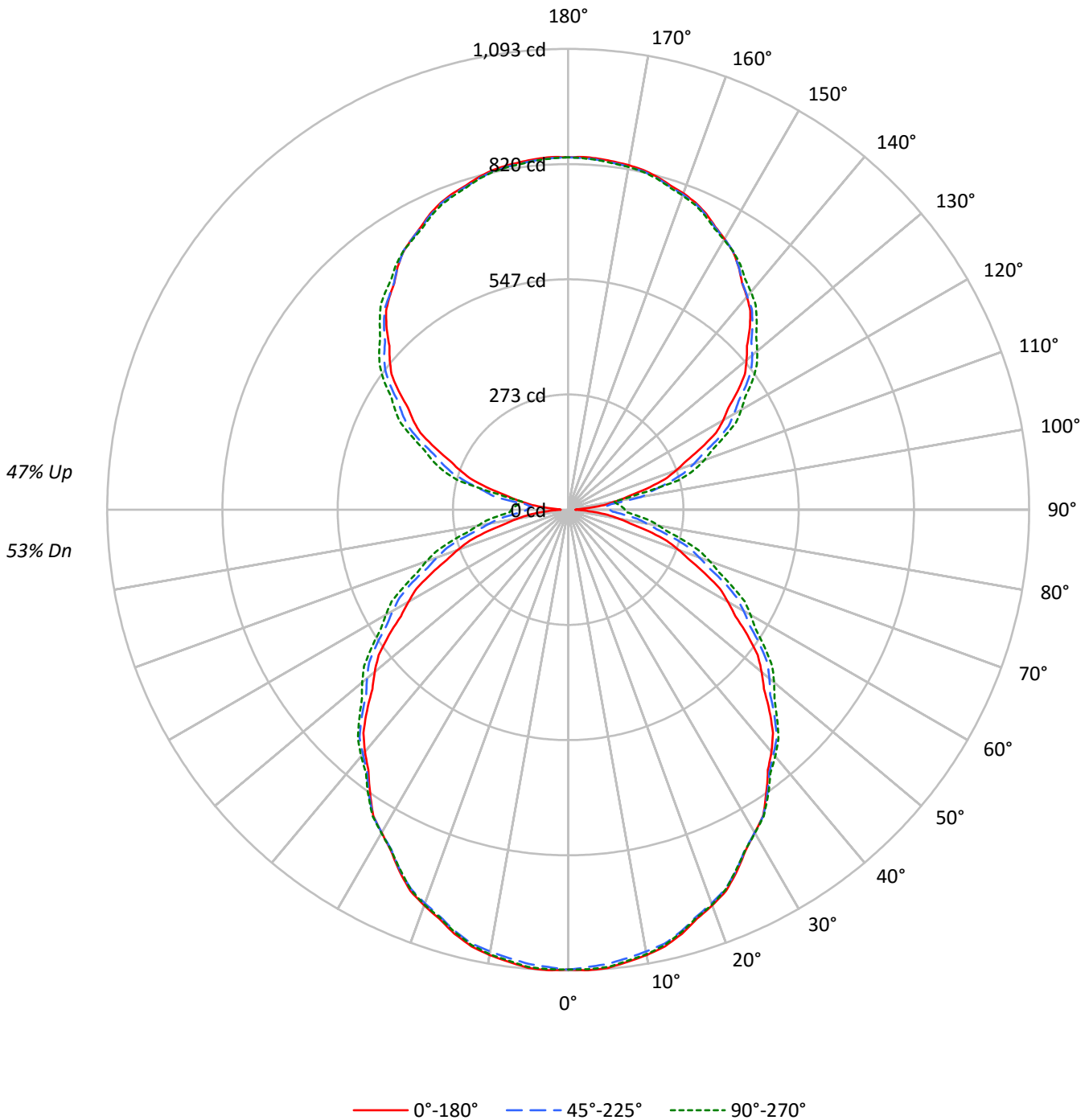
Input Watts (W): 54.4
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P333271-927

CATALOG NUMBER: S125DIP-S1090D810U927-4F0-1E-UDD-D

Luminous Intensity Polar Plot





TEST NUMBER: P333271-927

CATALOG NUMBER: S125DIP-S1090D810U927-4F0-1E-UDD-D

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	108	108	108	108	100	100	100	100	85	85	85	72	72	72	59	59	59	53
1	98	93	89	85	90	86	83	79	74	71	68	62	60	58	51	50	48	43
2	89	81	74	69	82	75	69	64	64	60	56	54	51	48	45	42	40	36
3	81	71	63	57	74	66	59	53	56	51	47	47	43	40	39	36	34	30
4	74	62	54	48	68	58	51	45	50	44	40	42	38	34	35	32	29	25
5	68	56	47	41	62	52	44	39	44	39	34	38	33	30	31	28	25	22
6	62	50	41	35	57	46	39	33	40	34	30	34	29	26	28	25	22	19
7	58	45	37	31	53	42	35	29	36	30	26	31	26	23	26	22	20	17
8	53	41	33	27	49	38	31	26	33	27	23	28	24	20	24	20	17	15
9	50	37	30	24	46	35	28	23	30	25	21	26	21	18	22	18	16	14
10	46	34	27	22	43	32	25	21	28	22	19	24	20	16	20	17	14	12

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	7045	7045	7045
5°	7059	6915	6937
10°	7008	6791	6781
15°	6926	6644	6583
20°	6814	6461	6385
25°	6679	6266	6141
30°	6517	6050	5920
35°	6366	5853	5717
40°	6211	5644	5513
45°	6037	5466	5331
50°	5872	5272	5172
55°	5671	5090	4983
60°	5453	4881	4791
65°	5225	4664	4575
70°	4967	4366	4353
75°	4557	4080	4079
80°	4018	3734	3783
85°	3519	3499	3689



TEST NUMBER: P333271-927

CATALOG NUMBER: S125DIP-S1090D810U927-4F0-1E-UDD-D

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	103.1	1.7
10°-20°	292.8	4.9
20°-30°	435.5	7.3
30°-40°	515.8	8.7
40°-50°	533.3	9.0
50°-60°	491.3	8.3
60°-70°	397.1	6.7
70°-80°	265.9	4.5
80°-90°	139.7	2.3
90°-100°	107.8	1.8
100°-110°	244.2	4.1
110°-120°	377.7	6.4
120°-130°	457.4	7.7
130°-140°	478.1	8.0
140°-150°	441.8	7.4
150°-160°	355.8	6.0
160°-170°	230.1	3.9
170°-180°	79.4	1.3
0°-30°	831.4	14.0
0°-40°	1347.2	22.7
0°-60°	2371.8	39.9
0°-90°	3174.5	53.4
90°-120°	729.7	12.3
90°-150°	2106.9	35.4
90°-180°	2772.0	46.6
0°-180°	5946.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1091	1091	1091	1091	1091	
5°	1091	1088	1081	1089	1089	103
15°	1042	1042	1035	1041	1037	293
25°	946	949	943	947	942	435
35°	819	826	824	826	827	512
45°	675	686	692	699	700	521
55°	519	536	553	564	569	463
65°	357	382	407	423	428	354
75°	197	225	259	279	286	209
85°	59	94	132	154	164	63
90°	18	57	98	124	135	13
95°	49	74	88	114	122	56
105°	192	212	243	264	272	203
115°	348	360	387	403	407	345
125°	491	495	515	529	533	438
135°	609	612	618	630	632	469
145°	704	704	704	710	711	440
155°	774	771	772	773	769	357
165°	817	814	814	817	813	231
175°	836	832	833	837	832	80
180°	836	836	836	836	836	



TEST NUMBER: P333271-927

CATALOG NUMBER: S125DIP-S1090D810U927-4F0-1E-UDD-D

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1090.8	1090.8	1090.8	1090.8	1090.8	1090.8	1090.8	1090.8	1090.8	1090.8	1090.8
2.5°	1093.4	1093.0	1092.6	1092.3	1091.9	1091.0	1089.6	1088.3	1087.0	1085.7	1087.0
5°	1090.8	1090.4	1089.9	1089.4	1088.9	1087.8	1086.2	1084.5	1082.8	1081.2	1083.1
7.5°	1081.2	1081.0	1080.8	1080.6	1080.5	1079.5	1077.8	1076.0	1074.4	1072.6	1074.3
10°	1072.6	1072.6	1072.6	1072.6	1072.6	1071.7	1069.8	1067.9	1066.0	1064.1	1065.7
12.5°	1060.7	1060.8	1061.0	1061.2	1061.4	1060.7	1059.2	1057.7	1056.2	1054.6	1056.0
15°	1041.6	1041.9	1042.1	1042.4	1042.6	1041.9	1040.2	1038.6	1036.9	1035.2	1036.6
17.5°	1016.8	1017.2	1017.7	1018.2	1018.7	1018.1	1016.4	1014.8	1013.1	1011.5	1012.6
20°	998.9	999.3	999.8	1000.3	1000.8	1000.1	998.5	996.8	995.1	993.5	994.2
22.5°	978.3	979.1	980.0	980.9	981.8	981.2	979.4	977.6	975.7	973.8	974.7
25°	946.4	947.1	947.8	948.6	949.3	949.0	947.5	946.1	944.7	943.3	944.2
27.5°	910.9	912.0	913.0	914.1	915.1	914.8	913.2	911.6	910.0	908.4	909.0
30°	884.4	885.8	887.2	888.7	890.1	890.1	888.7	887.2	885.8	884.4	884.9
32.5°	860.5	861.7	862.9	864.2	865.4	865.5	864.4	863.4	862.4	861.3	861.8
35°	819.2	820.9	822.5	824.2	825.9	826.3	825.6	824.9	824.2	823.5	824.2
37.5°	777.9	779.4	780.9	782.4	783.9	784.7	784.4	784.2	783.9	783.7	784.7
40°	749.6	751.5	753.4	755.3	757.2	758.1	757.9	757.6	757.4	757.2	758.1
42.5°	718.8	721.4	723.8	726.3	728.7	730.2	730.8	731.3	731.8	732.4	733.5
45°	674.8	677.4	680.0	682.6	685.2	687.1	688.3	689.5	690.7	691.9	693.6
47.5°	629.7	632.1	634.5	636.9	639.4	641.6	643.6	645.7	647.8	649.7	652.2
50°	598.9	601.5	604.1	606.7	609.3	612.0	614.6	617.2	619.8	622.4	625.0
52.5°	566.3	569.6	572.7	575.9	579.1	582.3	585.5	588.7	591.8	595.0	597.9
55°	518.6	522.4	526.2	530.0	533.9	537.7	541.5	545.3	549.1	552.9	555.5
57.5°	469.9	474.4	479.0	483.6	488.1	492.7	497.0	501.4	505.7	510.1	513.1
60°	437.4	442.1	446.9	451.6	456.4	461.1	465.9	470.6	475.4	480.1	483.7
62.5°	405.8	410.5	415.3	420.0	424.8	429.7	434.8	440.0	445.1	450.2	454.2
65°	357.2	362.7	368.1	373.6	379.1	384.6	390.3	396.0	401.7	407.4	411.0
67.5°	311.4	316.7	321.9	327.3	332.5	338.0	343.9	349.7	355.5	361.2	365.6
70°	278.1	283.5	289.0	294.5	299.9	305.7	311.9	318.1	324.2	330.4	334.9
72.5°	245.6	251.2	256.8	262.5	268.2	274.3	281.1	287.9	294.6	301.3	306.3
75°	196.8	203.0	209.1	215.3	221.5	228.4	236.0	243.6	251.2	258.8	263.6
77.5°	150.0	157.1	164.2	171.3	178.5	185.7	193.0	200.3	207.6	214.9	220.1
80°	120.8	127.9	135.1	142.2	149.3	156.9	165.0	173.1	181.2	189.3	194.5
82.5°	94.3	101.8	109.3	116.8	124.4	132.2	140.5	148.8	157.1	165.3	170.4
85°	58.8	66.6	74.5	82.3	90.2	98.2	106.5	114.9	123.2	131.5	136.7
87.5°	33.5	41.4	49.1	57.0	64.8	72.8	81.1	89.4	97.7	105.9	111.5
90°	17.7	26.5	35.2	43.9	52.5	61.4	70.5	79.5	88.6	97.6	103.8
92.5°	25.0	31.2	37.5	43.7	50.0	57.7	66.8	76.0	85.1	94.2	100.1
95°	49.2	55.0	60.8	66.5	72.2	76.6	79.5	82.3	85.2	88.0	93.9
97.5°	86.3	92.7	98.9	105.3	111.5	113.4	110.9	108.3	105.8	103.2	104.3
100°	115.3	120.6	126.0	131.4	136.8	143.6	151.8	159.9	168.1	176.3	160.7
102.5°	144.6	149.7	154.9	160.0	165.2	171.6	179.4	187.0	194.8	202.6	203.5
105°	191.8	196.1	200.5	204.9	209.2	214.9	222.0	229.2	236.3	243.4	248.2
107.5°	240.8	244.0	247.2	250.5	253.7	258.9	266.0	273.1	280.3	287.4	292.1
110°	272.7	275.5	278.4	281.2	284.1	288.9	295.9	302.8	309.7	316.6	320.8



TEST NUMBER: P333271-927

CATALOG NUMBER: S125DIP-S1090D810U927-4F0-1E-UDD-D

CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	303.4	306.0	308.6	311.2	313.8	318.5	325.0	331.7	338.3	344.9	348.7
115°	348.4	350.8	353.1	355.5	357.8	362.1	368.4	374.8	381.1	387.4	391.1
117.5°	395.1	396.1	397.1	398.2	399.3	403.0	409.4	415.7	422.2	428.5	431.8
120°	424.8	425.3	425.9	426.5	427.1	430.3	436.2	442.0	447.9	453.8	457.6
122.5°	450.2	451.1	451.9	452.7	453.6	456.8	462.2	467.7	473.2	478.6	482.2
125°	490.6	491.3	492.0	492.8	493.5	496.2	501.0	505.7	510.5	515.2	518.5
127.5°	528.3	528.8	529.2	529.7	530.1	532.3	536.1	539.9	543.7	547.5	550.7
130°	552.1	552.5	553.0	553.4	553.9	555.9	559.4	562.8	566.3	569.7	572.7
132.5°	575.0	575.8	576.6	577.3	578.1	579.6	581.8	584.1	586.4	588.6	591.8
135°	608.6	609.3	609.8	610.5	611.0	612.0	613.4	614.7	616.2	617.6	620.4
137.5°	639.5	640.1	640.6	641.1	641.7	642.2	642.8	643.3	643.9	644.4	647.3
140°	659.0	659.3	659.6	659.8	660.1	660.3	660.4	660.5	660.6	660.7	663.6
142.5°	677.3	677.3	677.3	677.2	677.2	677.3	677.6	677.8	678.1	678.3	680.6
145°	704.3	704.3	704.3	704.3	704.4	704.4	704.4	704.4	704.4	704.4	705.8
147.5°	726.7	726.7	726.6	726.5	726.5	726.5	726.7	726.8	727.1	727.2	727.8
150°	741.6	741.3	741.0	740.8	740.5	740.5	740.8	741.0	741.3	741.6	741.9
152.5°	756.0	755.3	754.7	754.2	753.5	753.4	753.6	753.9	754.2	754.5	754.7
155°	774.4	773.6	772.8	771.9	771.1	770.8	771.1	771.3	771.7	771.9	772.3
157.5°	788.6	788.1	787.7	787.2	786.6	786.4	786.5	786.5	786.5	786.6	787.0
160°	798.6	797.7	796.9	796.1	795.3	795.0	795.0	795.2	795.4	795.4	796.0
162.5°	806.5	805.6	804.9	804.0	803.2	802.9	803.0	803.1	803.3	803.4	804.1
165°	817.1	816.3	815.5	814.7	813.8	813.5	813.7	813.8	813.9	814.0	814.9
167.5°	825.1	824.3	823.4	822.5	821.7	821.3	821.4	821.6	821.7	821.9	822.8
170°	829.6	828.5	827.6	826.6	825.7	825.3	825.4	825.5	825.7	825.9	827.0
172.5°	832.5	831.6	830.6	829.7	828.6	828.3	828.5	828.8	829.0	829.3	830.3
175°	835.8	834.9	834.1	833.3	832.4	832.1	832.2	832.3	832.5	832.7	833.8
177.5°	837.3	836.5	835.9	835.3	834.6	834.3	834.4	834.5	834.6	834.7	835.5
180°	835.8	835.8	835.8	835.8	835.8	835.8	835.8	835.8	835.8	835.8	835.8



TEST NUMBER: P333271-927

CATALOG NUMBER: S125DIP-S1090D810U927-4F0-1E-UDD-D

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	1090.8	1090.8	1090.8	1090.8	1090.8	1090.8	1090.8	1090.8
2.5°	1088.3	1089.6	1091.0	1091.5	1091.4	1091.2	1091.0	1090.8
5°	1085.0	1086.9	1088.8	1089.6	1089.4	1089.2	1088.9	1088.7
7.5°	1075.9	1077.6	1079.3	1080.0	1079.7	1079.5	1079.3	1079.0
10°	1067.4	1069.1	1070.7	1071.4	1071.2	1071.0	1070.7	1070.5
12.5°	1057.2	1058.5	1059.8	1060.1	1059.5	1058.9	1058.3	1057.6
15°	1038.1	1039.5	1040.9	1041.2	1040.2	1039.3	1038.3	1037.4
17.5°	1013.7	1014.7	1015.8	1016.1	1015.5	1014.9	1014.4	1013.8
20°	994.9	995.6	996.3	996.7	996.7	996.7	996.7	996.7
22.5°	975.7	976.5	977.4	977.6	977.0	976.4	975.9	975.3
25°	945.2	946.1	947.1	946.9	945.7	944.5	943.3	942.1
27.5°	909.7	910.4	911.0	911.2	910.7	910.3	909.8	909.4
30°	885.3	885.8	886.3	886.5	886.2	886.0	885.7	885.5
32.5°	862.3	862.8	863.2	863.3	863.1	862.8	862.6	862.4
35°	824.9	825.6	826.3	826.6	826.6	826.6	826.6	826.6
37.5°	785.6	786.6	787.5	787.9	787.8	787.7	787.6	787.5
40°	759.1	760.0	761.0	761.7	762.2	762.6	763.1	763.6
42.5°	734.6	735.8	736.9	737.5	737.6	737.7	737.8	737.9
45°	695.2	696.9	698.5	699.5	699.7	700.0	700.2	700.4
47.5°	654.7	657.0	659.5	660.9	661.5	662.0	662.5	663.1
50°	627.6	630.3	632.9	634.5	635.3	636.0	636.7	637.4
52.5°	600.6	603.4	606.3	607.9	608.4	609.0	609.5	610.0
55°	558.1	560.7	563.3	565.1	566.1	567.0	568.0	568.9
57.5°	516.1	519.1	522.1	523.9	524.7	525.4	526.1	526.8
60°	487.3	490.8	494.4	496.5	497.3	498.0	498.7	499.4
62.5°	458.1	462.1	466.0	468.4	469.4	470.2	471.1	472.1
65°	414.5	418.1	421.7	424.0	424.9	425.9	426.8	427.8
67.5°	369.9	374.2	378.6	381.4	382.5	383.8	385.0	386.3
70°	339.5	344.0	348.5	351.5	352.9	354.3	355.8	357.2
72.5°	311.2	316.1	320.9	323.9	325.0	326.0	327.0	328.1
75°	268.3	273.1	277.8	280.7	281.9	283.1	284.3	285.5
77.5°	225.4	230.6	235.8	238.9	239.9	240.8	241.8	242.7
80°	199.7	204.9	210.2	213.3	214.2	215.2	216.1	217.1
82.5°	175.4	180.5	185.4	188.9	190.6	192.3	194.0	195.7
85°	142.0	147.2	152.4	156.0	157.9	159.8	161.7	163.6
87.5°	117.2	122.7	128.3	132.1	133.8	135.5	137.3	139.0
90°	109.9	116.1	122.2	126.4	128.4	130.5	132.5	134.7
92.5°	106.1	112.1	118.0	121.9	123.8	125.6	127.5	129.4
95°	99.8	105.8	111.6	115.4	117.1	118.7	120.4	122.1
97.5°	105.4	106.5	107.7	109.0	110.6	112.3	113.8	115.4
100°	145.2	129.7	114.2	106.9	107.7	108.6	109.5	110.4
102.5°	204.4	205.3	206.2	202.7	194.8	186.9	178.9	171.0
105°	252.9	257.7	262.4	265.6	267.1	268.6	270.1	271.7
107.5°	296.8	301.6	306.3	309.2	310.2	311.3	312.4	313.5
110°	324.9	329.0	333.0	336.0	337.8	339.6	341.4	343.3



TEST NUMBER: P333271-927

CATALOG NUMBER: S125DIP-S1090D810U927-4F0-1E-UDD-D

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	352.5	356.3	360.1	362.8	364.2	365.8	367.2	368.7
115°	394.8	398.5	402.3	404.5	405.0	405.7	406.3	406.9
117.5°	435.1	438.5	441.8	444.1	445.4	446.6	447.8	449.1
120°	461.4	465.1	468.9	471.1	471.8	472.6	473.3	474.0
122.5°	485.8	489.3	492.9	495.0	495.7	496.3	496.9	497.6
125°	521.7	525.0	528.2	530.3	531.1	531.8	532.6	533.4
127.5°	554.0	557.1	560.4	562.1	562.5	562.8	563.2	563.6
130°	575.5	578.5	581.4	583.1	583.6	584.1	584.6	585.1
132.5°	595.1	598.3	601.6	603.3	603.6	604.0	604.3	604.6
135°	623.2	626.0	628.8	630.4	630.7	631.1	631.4	631.8
137.5°	650.1	653.0	655.8	657.4	657.7	657.9	658.1	658.4
140°	666.5	669.4	672.2	673.8	673.9	674.0	674.1	674.2
142.5°	682.9	685.2	687.5	688.6	688.8	688.9	689.0	689.2
145°	707.0	708.4	709.7	710.4	710.6	710.7	710.8	710.9
147.5°	728.3	728.8	729.4	729.4	728.8	728.3	727.7	727.1
150°	742.1	742.4	742.7	742.4	741.5	740.6	739.8	738.9
152.5°	755.0	755.3	755.6	755.2	754.3	753.4	752.4	751.5
155°	772.8	773.2	773.6	773.2	772.1	771.0	769.9	768.8
157.5°	787.4	787.9	788.3	788.0	786.9	785.8	784.7	783.5
160°	796.5	797.1	797.6	797.4	796.3	795.2	794.1	793.0
162.5°	804.9	805.7	806.4	806.3	805.0	803.8	802.6	801.5
165°	815.7	816.5	817.4	817.2	816.1	815.0	813.9	812.8
167.5°	823.9	824.8	825.9	825.7	824.4	823.2	822.0	820.8
170°	828.0	829.1	830.2	830.1	828.9	827.7	826.4	825.2
172.5°	831.2	832.3	833.3	833.1	831.9	830.7	829.4	828.1
175°	834.8	835.9	837.0	836.9	835.8	834.5	833.3	832.0
177.5°	836.3	837.0	837.8	837.8	836.9	836.0	835.1	834.2
180°	835.8	835.8	835.8	835.8	835.8	835.8	835.8	835.8

(END OF REPORT)