

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: P333402-930

Luminaire Tested: **S125DIW-S850D470U930-4F0-1E-UDD-D**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P333402-930  
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: S125DIW-S850D470U930-4F0-1E-UDD-D  
Description: DEFINE 5 DIRECT-INDIRECT WALL MOUNT LED LUMINAIRE  
DOWNLIGHT 850 LUMENS PER FOOT, DROP SATIN WHITE DIFFUSER  
UPLIGHT 470 LUMENS PER FOOT, NO LENS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4204.0 lumens  
Efficiency: N/A  
Efficacy: 111.5 lumens/watt  
Spacing Criteria (0/90/45): 1.21 / 1.22 / 1.34  
Luminous Opening: Rectangular w/ Sides (W: 0.42' x L: 4' x H: 0.08')  
CIE Type: General Diffuse

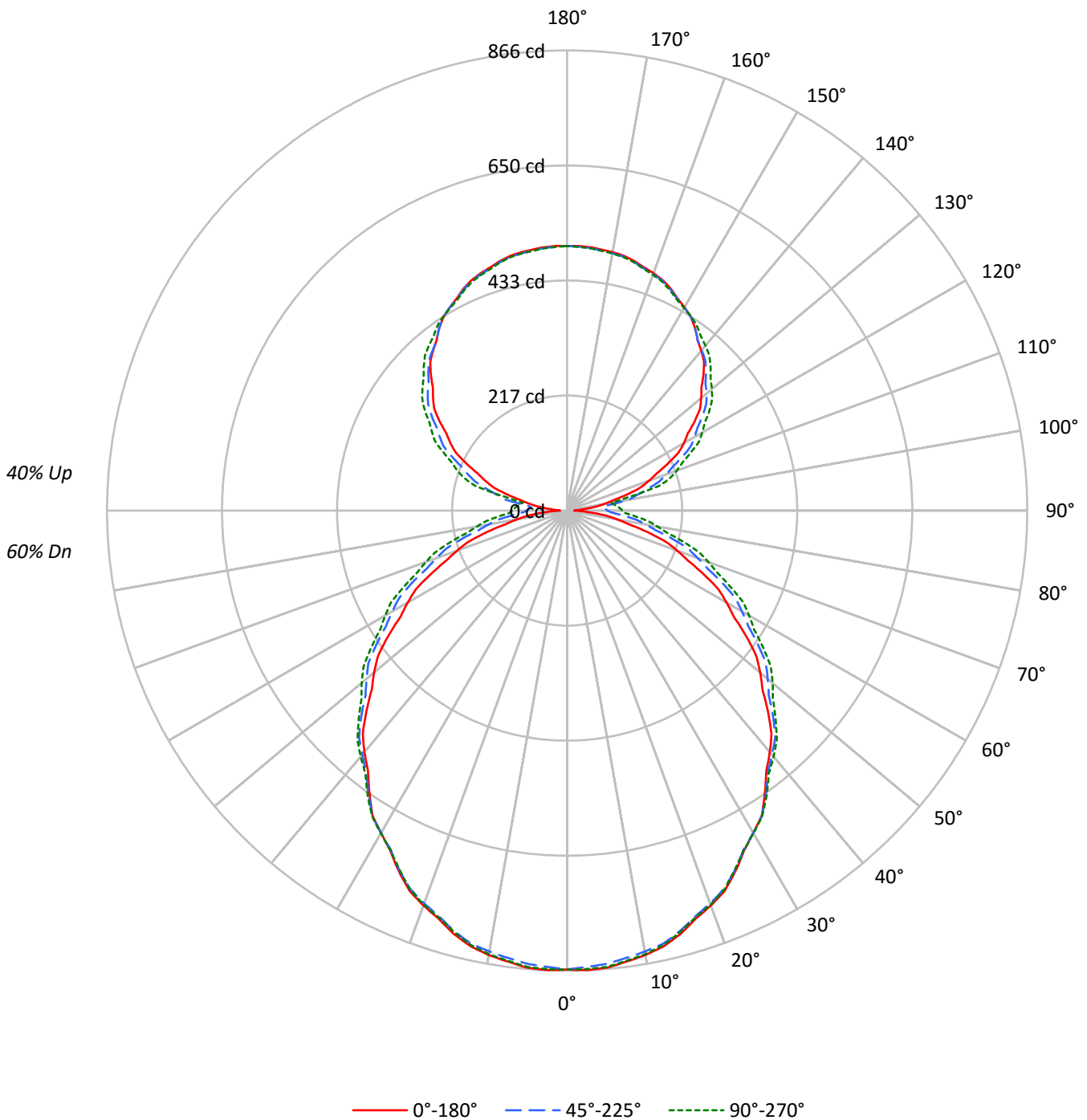
Input Watts (W): 37.7  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



TEST NUMBER: P333402-930

CATALOG NUMBER: S125DIW-S850D470U930-4F0-1E-UDD-D

### Luminous Intensity Polar Plot





TEST NUMBER: P333402-930

CATALOG NUMBER: S125DIW-S850D470U930-4F0-1E-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	109	109	109	109	102	102	102	102	89	89	89	76	76	76	65	65	65	60
1	99	94	90	86	92	88	84	81	77	74	71	66	64	62	56	55	53	49
2	90	82	75	70	84	77	71	66	67	62	58	57	54	51	49	46	44	40
3	82	72	64	58	76	67	60	55	58	53	49	50	46	43	43	40	37	33
4	75	63	55	49	69	59	52	46	52	46	41	45	40	36	38	35	32	28
5	69	56	48	42	64	53	45	39	46	40	35	40	35	31	34	31	28	25
6	63	51	42	36	59	47	40	34	42	35	31	36	31	27	31	27	24	21
7	58	46	37	32	54	43	35	30	38	32	27	33	28	24	28	24	21	19
8	54	41	33	28	50	39	32	27	34	28	24	30	25	22	26	22	19	17
9	50	38	30	25	47	36	29	24	32	26	22	28	23	19	24	20	17	15
10	47	35	27	22	44	33	26	21	29	23	19	26	21	18	22	19	16	14

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	5577	5577	5577
5°	5589	5475	5492
10°	5549	5377	5369
15°	5484	5260	5212
20°	5394	5115	5055
25°	5288	4960	4863
30°	5160	4791	4687
35°	5040	4634	4526
40°	4918	4469	4364
45°	4780	4328	4221
50°	4649	4175	4095
55°	4491	4030	3946
60°	4317	3865	3793
65°	4137	3693	3622
70°	3931	3457	3446
75°	3607	3230	3231
80°	3183	2957	2996
85°	2789	2770	2923



TEST NUMBER: P333402-930

CATALOG NUMBER: S125DIW-S850D470U930-4F0-1E-UDD-D

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	81.7	1.9
10°-20°	231.8	5.5
20°-30°	344.8	8.2
30°-40°	408.4	9.7
40°-50°	422.2	10.0
50°-60°	389.0	9.3
60°-70°	314.4	7.5
70°-80°	210.6	5.0
80°-90°	110.2	2.6
90°-100°	79.3	1.9
100°-110°	156.6	3.7
110°-120°	232.4	5.5
120°-130°	276.6	6.6
130°-140°	286.5	6.8
140°-150°	263.4	6.3
150°-160°	211.8	5.0
160°-170°	137.0	3.3
170°-180°	47.3	1.1
0°-30°	658.3	15.7
0°-40°	1066.7	25.4
0°-60°	1877.9	44.7
0°-90°	2513.1	59.8
90°-120°	468.4	11.1
90°-150°	1294.8	30.8
90°-180°	1691.0	40.2
0°-180°	4204.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	864	864	864	864	864	
5°	864	862	856	862	862	82
15°	825	825	820	824	821	232
25°	749	751	747	750	746	345
35°	649	654	652	654	654	406
45°	534	543	548	553	555	412
55°	411	424	438	447	450	367
65°	283	302	323	335	339	280
75°	156	178	205	221	226	165
85°	47	75	104	122	130	50
90°	14	44	75	96	104	10
95°	32	53	68	87	94	35
105°	116	132	156	173	179	123
115°	209	217	239	252	255	207
125°	293	296	312	323	327	261
135°	363	364	369	379	382	280
145°	420	419	419	424	425	262
155°	461	459	460	460	458	212
165°	486	484	485	487	484	137
175°	498	496	496	498	495	47
180°	498	498	498	498	498	



TEST NUMBER: P333402-930

CATALOG NUMBER: S125DIW-S850D470U930-4F0-1E-UDD-D

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	863.6	863.6	863.6	863.6	863.6	863.6	863.6	863.6	863.6	863.6	863.6
2.5°	865.7	865.4	865.1	864.8	864.5	863.8	862.7	861.7	860.6	859.6	860.6
5°	863.6	863.3	862.9	862.5	862.2	861.3	860.0	858.7	857.4	856.1	857.5
7.5°	856.1	855.9	855.7	855.6	855.4	854.7	853.4	852.0	850.6	849.3	850.6
10°	849.3	849.3	849.3	849.3	849.3	848.6	847.0	845.5	844.0	842.5	843.8
12.5°	839.8	839.9	840.1	840.2	840.4	839.8	838.7	837.5	836.3	835.0	836.1
15°	824.8	824.9	825.1	825.2	825.5	824.9	823.6	822.3	820.9	819.6	820.8
17.5°	805.1	805.4	805.8	806.2	806.6	806.1	804.8	803.5	802.2	800.9	801.7
20°	790.8	791.2	791.6	792.0	792.4	791.9	790.6	789.3	787.9	786.6	787.2
22.5°	774.6	775.3	775.9	776.7	777.3	776.9	775.4	774.0	772.5	771.0	771.8
25°	749.3	749.9	750.5	751.1	751.6	751.3	750.2	749.1	748.0	746.8	747.5
27.5°	721.2	722.1	722.9	723.7	724.6	724.3	723.1	721.8	720.5	719.3	719.7
30°	700.3	701.4	702.5	703.6	704.7	704.7	703.6	702.5	701.4	700.3	700.7
32.5°	681.3	682.2	683.2	684.2	685.2	685.3	684.4	683.6	682.8	682.0	682.3
35°	648.6	650.0	651.3	652.6	653.9	654.3	653.7	653.1	652.6	652.0	652.6
37.5°	615.9	617.1	618.3	619.5	620.8	621.3	621.0	620.9	620.7	620.5	621.3
40°	593.5	595.1	596.6	598.1	599.6	600.2	600.1	599.9	599.7	599.5	600.2
42.5°	569.2	571.1	573.1	575.0	577.0	578.2	578.6	579.0	579.4	579.8	580.7
45°	534.3	536.4	538.4	540.5	542.6	544.0	545.0	545.9	546.9	547.8	549.2
47.5°	498.6	500.5	502.4	504.3	506.2	508.0	509.6	511.3	512.8	514.5	516.4
50°	474.2	476.2	478.3	480.4	482.4	484.5	486.6	488.7	490.7	492.8	494.9
52.5°	448.4	450.9	453.5	456.0	458.5	461.1	463.6	466.1	468.6	471.2	473.4
55°	410.7	413.7	416.7	419.7	422.7	425.7	428.8	431.8	434.7	437.7	439.9
57.5°	372.0	375.7	379.3	382.9	386.5	390.0	393.5	397.0	400.4	403.9	406.3
60°	346.3	350.1	353.8	357.6	361.3	365.2	368.9	372.7	376.4	380.2	383.0
62.5°	321.2	325.0	328.8	332.6	336.3	340.2	344.3	348.4	352.4	356.4	359.6
65°	282.8	287.1	291.5	295.8	300.1	304.5	309.1	313.6	318.1	322.6	325.5
67.5°	246.5	250.8	254.9	259.1	263.3	267.7	272.2	276.9	281.4	286.0	289.4
70°	220.1	224.5	228.8	233.2	237.5	242.1	247.0	251.8	256.7	261.6	265.2
72.5°	194.4	198.9	203.3	207.8	212.3	217.2	222.6	228.0	233.3	238.6	242.5
75°	155.8	160.7	165.6	170.5	175.4	180.8	186.9	192.9	198.9	204.9	208.6
77.5°	118.7	124.3	130.0	135.7	141.3	147.0	152.8	158.6	164.4	170.2	174.3
80°	95.7	101.3	107.0	112.6	118.3	124.3	130.7	137.1	143.5	149.9	154.0
82.5°	74.7	80.6	86.6	92.5	98.5	104.7	111.3	117.8	124.3	130.9	134.9
85°	46.6	52.7	59.0	65.2	71.4	77.8	84.4	91.0	97.6	104.1	108.3
87.5°	26.5	32.6	38.8	44.9	51.1	57.4	63.9	70.4	77.0	83.5	87.9
90°	13.9	20.6	27.2	33.9	40.6	47.5	54.4	61.4	68.3	75.3	80.1
92.5°	17.9	23.0	28.1	33.2	38.3	44.4	51.4	58.5	65.6	72.6	77.2
95°	32.0	36.7	41.3	46.0	50.6	54.5	57.9	61.1	64.4	67.8	72.2
97.5°	53.9	58.7	63.6	68.4	73.3	75.7	75.7	75.7	75.7	75.7	77.4
100°	70.9	75.1	79.3	83.5	87.7	92.9	99.3	105.7	112.0	118.4	110.1
102.5°	88.2	92.2	96.1	100.1	104.1	109.1	115.2	121.2	127.3	133.4	134.9
105°	116.1	119.4	122.7	126.0	129.4	133.9	139.6	145.2	150.8	156.5	160.3
107.5°	145.0	147.6	150.1	152.7	155.2	159.3	164.9	170.5	176.0	181.6	185.4
110°	163.8	166.1	168.3	170.6	172.8	176.7	182.1	187.5	193.0	198.4	201.7



TEST NUMBER: P333402-930

CATALOG NUMBER: S125DIW-S850D470U930-4F0-1E-UDD-D

**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	182.1	184.1	186.1	188.1	190.1	193.7	198.9	204.2	209.4	214.6	217.7
115°	208.7	210.4	212.1	213.9	215.6	218.9	223.9	228.9	233.8	238.8	241.9
117.5°	236.2	237.1	237.9	238.8	239.6	242.6	247.4	252.4	257.3	262.3	265.1
120°	254.0	254.5	254.9	255.4	255.8	258.4	262.9	267.6	272.1	276.7	279.7
122.5°	268.9	269.5	270.0	270.6	271.2	273.6	277.9	282.2	286.5	290.8	293.7
125°	292.9	293.3	293.7	294.1	294.5	296.5	300.3	304.1	307.9	311.6	314.3
127.5°	315.2	315.4	315.6	315.8	316.1	317.7	320.7	323.8	326.8	329.8	332.4
130°	329.3	329.5	329.8	330.0	330.2	331.7	334.4	337.1	339.8	342.6	345.0
132.5°	342.8	343.2	343.7	344.1	344.5	345.7	347.6	349.4	351.2	353.1	355.7
135°	362.8	363.1	363.4	363.7	364.0	364.8	365.9	367.0	368.2	369.3	371.6
137.5°	381.2	381.4	381.6	382.0	382.2	382.6	383.1	383.6	384.1	384.6	386.9
140°	392.6	392.7	392.9	393.1	393.2	393.4	393.5	393.5	393.6	393.8	396.0
142.5°	403.5	403.4	403.3	403.3	403.2	403.3	403.5	403.7	403.7	403.9	405.7
145°	419.5	419.5	419.4	419.4	419.4	419.4	419.4	419.4	419.4	419.4	420.4
147.5°	432.7	432.6	432.6	432.5	432.5	432.5	432.7	432.8	432.8	432.9	433.3
150°	441.5	441.3	441.2	441.0	440.8	440.8	441.0	441.2	441.3	441.5	441.6
152.5°	450.0	449.7	449.3	449.0	448.6	448.5	448.7	448.8	449.0	449.1	449.3
155°	461.1	460.6	460.1	459.6	459.1	458.9	459.1	459.3	459.4	459.6	459.8
157.5°	469.5	469.2	469.0	468.6	468.3	468.2	468.2	468.2	468.2	468.3	468.6
160°	475.4	474.9	474.4	473.9	473.4	473.3	473.4	473.4	473.5	473.6	473.9
162.5°	480.1	479.6	479.2	478.7	478.2	478.0	478.1	478.2	478.3	478.3	478.7
165°	486.5	486.0	485.5	485.0	484.5	484.3	484.4	484.5	484.5	484.6	485.1
167.5°	491.2	490.7	490.2	489.7	489.2	488.9	489.0	489.1	489.2	489.3	489.9
170°	493.9	493.3	492.7	492.1	491.5	491.3	491.4	491.5	491.5	491.6	492.3
172.5°	495.6	495.0	494.5	493.9	493.3	493.2	493.3	493.4	493.6	493.7	494.3
175°	497.6	497.1	496.6	496.1	495.6	495.4	495.5	495.5	495.6	495.7	496.4
177.5°	498.5	498.1	497.7	497.3	496.8	496.7	496.8	496.8	496.9	497.0	497.4
180°	497.6	497.6	497.6	497.6	497.6	497.6	497.6	497.6	497.6	497.6	497.6



TEST NUMBER: P333402-930

CATALOG NUMBER: S125DIW-S850D470U930-4F0-1E-UDD-D

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
0°	863.6	863.6	863.6	863.6	863.6	863.6	863.6	863.6
2.5°	861.7	862.7	863.8	864.3	864.1	864.0	863.8	863.6
5°	859.1	860.5	862.1	862.7	862.5	862.3	862.2	862.0
7.5°	851.9	853.2	854.5	855.1	854.9	854.8	854.5	854.4
10°	845.1	846.4	847.7	848.3	848.2	848.0	847.7	847.6
12.5°	837.1	838.1	839.1	839.4	838.9	838.4	837.9	837.4
15°	821.9	823.0	824.2	824.3	823.6	822.8	822.1	821.3
17.5°	802.6	803.5	804.3	804.5	804.0	803.6	803.2	802.7
20°	787.7	788.3	788.9	789.1	789.1	789.1	789.1	789.1
22.5°	772.5	773.1	773.9	774.0	773.6	773.1	772.7	772.3
25°	748.4	749.1	749.8	749.7	748.8	747.9	746.9	746.0
27.5°	720.2	720.8	721.3	721.5	721.1	720.7	720.4	720.1
30°	701.0	701.4	701.7	701.9	701.6	701.5	701.3	701.1
32.5°	682.7	683.1	683.5	683.5	683.4	683.2	683.0	682.8
35°	653.1	653.7	654.3	654.5	654.5	654.5	654.5	654.5
37.5°	622.0	622.7	623.5	623.9	623.8	623.7	623.6	623.5
40°	601.0	601.8	602.5	603.1	603.4	603.8	604.2	604.5
42.5°	581.6	582.5	583.4	583.9	584.0	584.1	584.2	584.2
45°	550.5	551.8	553.1	553.8	554.1	554.2	554.4	554.6
47.5°	518.3	520.2	522.1	523.3	523.7	524.2	524.6	525.0
50°	496.9	499.0	501.1	502.4	503.0	503.5	504.1	504.7
52.5°	475.6	477.8	480.0	481.4	481.8	482.2	482.6	483.0
55°	441.9	444.0	446.1	447.4	448.2	449.0	449.7	450.5
57.5°	408.6	411.0	413.4	414.8	415.4	416.0	416.5	417.1
60°	385.8	388.7	391.5	393.1	393.7	394.3	394.8	395.4
62.5°	362.7	365.8	369.0	370.9	371.6	372.3	373.0	373.7
65°	328.2	331.1	333.9	335.7	336.5	337.2	337.9	338.7
67.5°	292.9	296.3	299.7	301.9	302.9	303.9	304.8	305.8
70°	268.8	272.4	276.0	278.3	279.4	280.5	281.7	282.8
72.5°	246.4	250.2	254.1	256.5	257.3	258.1	258.9	259.8
75°	212.5	216.2	220.0	222.3	223.2	224.2	225.1	226.1
77.5°	178.5	182.6	186.8	189.2	190.0	190.7	191.4	192.2
80°	158.2	162.3	166.4	168.8	169.7	170.4	171.1	171.9
82.5°	138.8	142.8	146.8	149.5	150.9	152.2	153.6	155.0
85°	112.4	116.6	120.7	123.5	125.1	126.5	128.1	129.6
87.5°	92.3	96.7	101.1	104.0	105.3	106.7	108.1	109.5
90°	84.8	89.5	94.2	97.4	99.0	100.5	102.2	103.7
92.5°	81.8	86.4	91.0	94.0	95.4	96.9	98.2	99.7
95°	76.8	81.4	85.9	88.9	90.2	91.5	92.8	94.1
97.5°	79.0	80.6	82.3	83.7	85.0	86.3	87.6	88.9
100°	101.8	93.6	85.4	81.6	82.4	83.2	84.0	84.8
102.5°	136.3	137.9	139.3	137.9	133.4	129.0	124.5	120.1
105°	164.0	167.8	171.5	174.1	175.3	176.5	177.7	179.0
107.5°	189.1	192.8	196.6	198.9	199.8	200.8	201.7	202.6
110°	205.0	208.4	211.7	214.1	215.5	216.9	218.3	219.6





TEST NUMBER: P333402-930

CATALOG NUMBER: S125DIW-S850D470U930-4F0-1E-UDD-D

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	220.8	223.9	227.1	229.2	230.4	231.6	232.8	234.0
115°	244.9	248.0	251.0	252.9	253.6	254.2	254.9	255.4
117.5°	267.8	270.6	273.4	275.3	276.4	277.4	278.5	279.6
120°	282.7	285.8	288.9	290.7	291.4	292.1	292.9	293.6
122.5°	296.6	299.5	302.3	304.1	304.8	305.4	306.1	306.7
125°	317.0	319.7	322.3	324.0	324.7	325.4	326.1	326.8
127.5°	335.0	337.6	340.2	341.8	342.3	342.8	343.2	343.7
130°	347.3	349.7	352.1	353.6	354.1	354.7	355.1	355.7
132.5°	358.3	360.9	363.5	364.9	365.3	365.7	366.1	366.5
135°	373.9	376.2	378.5	379.8	380.3	380.7	381.2	381.6
137.5°	389.1	391.3	393.6	394.8	395.2	395.5	395.8	396.2
140°	398.3	400.5	402.7	404.0	404.2	404.5	404.7	405.0
142.5°	407.5	409.4	411.2	412.1	412.4	412.7	412.9	413.2
145°	421.4	422.4	423.5	424.1	424.4	424.6	424.9	425.2
147.5°	433.7	434.1	434.6	434.6	434.4	434.1	433.8	433.6
150°	441.8	442.0	442.1	442.0	441.6	441.1	440.6	440.1
152.5°	449.5	449.6	449.8	449.6	449.1	448.5	448.0	447.4
155°	460.1	460.3	460.6	460.3	459.7	459.0	458.4	457.7
157.5°	468.8	469.0	469.3	469.1	468.5	467.8	467.2	466.5
160°	474.3	474.6	474.9	474.7	474.1	473.4	472.8	472.1
162.5°	479.2	479.7	480.1	480.0	479.3	478.6	477.8	477.1
165°	485.7	486.2	486.7	486.6	485.9	485.2	484.5	483.9
167.5°	490.5	491.1	491.6	491.6	490.8	490.1	489.3	488.6
170°	492.9	493.7	494.3	494.2	493.5	492.8	492.0	491.3
172.5°	494.9	495.5	496.1	496.0	495.3	494.6	493.8	493.1
175°	497.0	497.7	498.3	498.3	497.6	496.8	496.1	495.4
177.5°	497.9	498.3	498.8	498.8	498.2	497.7	497.2	496.7
180°	497.6	497.6	497.6	497.6	497.6	497.6	497.6	497.6

(END OF REPORT)