

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: P333402-935

Luminaire Tested: **S125DIW-S850D470U935-4F0-1E-UDD-D**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P333402-935  
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-S850D470U935-4F0-1E-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: 4439.7 lumens  
Efficiency: N/A  
Efficacy: 117.8 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

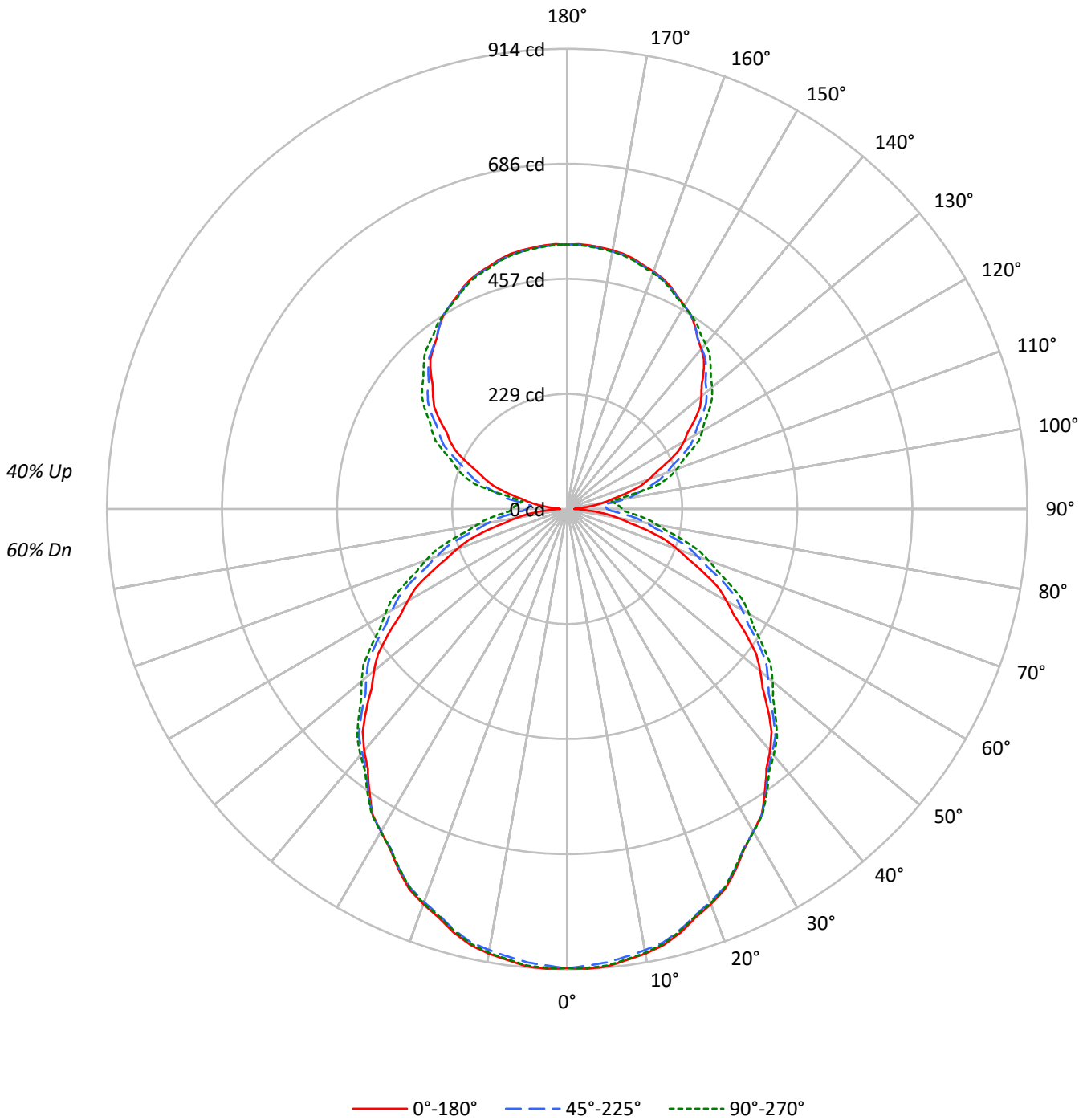
Input Watts (W): 37.7  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Luminous Intensity Polar Plot





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**COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:**

RF	20					20						20								20		
RC	80					70						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°	5891	5891	5891
5°	5902	5782	5800
10°	5860	5679	5670
15°	5791	5555	5505
20°	5697	5402	5339
25°	5585	5239	5135
30°	5449	5059	4950
35°	5322	4893	4780
40°	5194	4719	4609
45°	5048	4570	4458
50°	4910	4408	4325
55°	4742	4256	4166
60°	4560	4082	4006
65°	4369	3900	3826
70°	4153	3651	3640
75°	3809	3412	3412
80°	3363	3122	3163
85°	2945	2924	3085



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	86.2	1.9
10°-20°	244.8	5.5
20°-30°	364.1	8.2
30°-40°	431.3	9.7
40°-50°	445.9	10.0
50°-60°	410.8	9.3
60°-70°	332.0	7.5
70°-80°	222.4	5.0
80°-90°	116.4	2.6
90°-100°	83.8	1.9
100°-110°	165.4	3.7
110°-120°	245.4	5.5
120°-130°	292.1	6.6
130°-140°	302.6	6.8
140°-150°	278.2	6.3
150°-160°	223.7	5.0
160°-170°	144.7	3.3
170°-180°	49.9	1.1
0°-30°	695.2	15.7
0°-40°	1126.5	25.4
0°-60°	1983.2	44.7
0°-90°	2654.0	59.8
90°-120°	494.6	11.1
90°-150°	1367.4	30.8
90°-180°	1786.0	40.2
0°-180°	4439.7	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	912	912	912	912	912	
5°	912	910	904	911	910	86
15°	871	872	866	870	867	245
25°	791	794	789	792	788	364
35°	685	691	688	691	691	428
45°	564	574	578	584	586	435
55°	434	448	462	472	476	388
65°	299	319	341	354	358	296
75°	164	188	216	234	239	175
85°	49	79	110	129	137	52
90°	15	46	80	101	110	10
95°	34	56	72	92	99	37
105°	123	139	165	182	189	130
115°	220	229	252	266	270	218
125°	309	312	329	341	345	276
135°	383	385	390	400	403	295
145°	443	443	443	448	449	277
155°	487	485	485	486	483	224
165°	514	512	512	514	511	145
175°	526	523	524	526	523	50
180°	526	526	526	526	526	



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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	912.1	912.1	912.1	912.1	912.1	912.1	912.1	912.1	912.1	912.1	912.1
2.5°	914.2	914.0	913.6	913.3	912.9	912.2	911.1	910.0	908.9	907.8	908.9
5°	912.1	911.7	911.3	910.9	910.5	909.6	908.2	906.8	905.4	904.0	905.6
7.5°	904.0	903.9	903.7	903.5	903.4	902.6	901.2	899.7	898.3	896.9	898.3
10°	896.9	896.9	896.9	896.9	896.9	896.1	894.5	892.9	891.3	889.8	891.1
12.5°	886.8	887.0	887.2	887.3	887.5	886.9	885.7	884.4	883.1	881.8	883.0
15°	871.0	871.2	871.3	871.5	871.8	871.2	869.8	868.4	866.9	865.6	866.8
17.5°	850.2	850.6	851.0	851.4	851.8	851.3	849.9	848.5	847.1	845.8	846.6
20°	835.2	835.6	835.9	836.4	836.8	836.3	834.9	833.5	832.1	830.7	831.3
22.5°	818.0	818.7	819.4	820.2	820.9	820.4	818.9	817.3	815.8	814.2	815.0
25°	791.3	791.9	792.6	793.2	793.8	793.4	792.3	791.1	789.9	788.7	789.5
27.5°	761.6	762.6	763.4	764.3	765.2	764.9	763.6	762.2	760.9	759.6	760.1
30°	739.5	740.7	741.9	743.0	744.2	744.2	743.0	741.9	740.7	739.5	739.9
32.5°	719.5	720.5	721.5	722.6	723.6	723.7	722.8	721.9	721.1	720.2	720.6
35°	684.9	686.4	687.8	689.1	690.5	691.0	690.3	689.7	689.1	688.5	689.1
37.5°	650.4	651.7	653.0	654.3	655.6	656.1	655.8	655.7	655.5	655.3	656.1
40°	626.8	628.4	630.0	631.6	633.2	633.9	633.7	633.5	633.3	633.1	633.9
42.5°	601.1	603.1	605.2	607.3	609.3	610.6	611.1	611.5	611.9	612.3	613.3
45°	564.2	566.5	568.6	570.8	573.0	574.5	575.6	576.5	577.6	578.5	580.0
47.5°	526.5	528.6	530.5	532.6	534.6	536.5	538.2	539.9	541.6	543.3	545.4
50°	500.8	502.9	505.1	507.3	509.5	511.7	513.8	516.1	518.2	520.4	522.6
52.5°	473.6	476.2	478.9	481.6	484.2	486.9	489.6	492.2	494.9	497.6	499.9
55°	433.7	436.9	440.1	443.2	446.4	449.6	452.8	456.0	459.1	462.3	464.5
57.5°	392.9	396.7	400.5	404.3	408.2	411.9	415.6	419.2	422.8	426.5	429.0
60°	365.8	369.7	373.7	377.6	381.6	385.6	389.6	393.6	397.5	401.5	404.5
62.5°	339.2	343.2	347.2	351.2	355.2	359.3	363.6	367.9	372.1	376.4	379.8
65°	298.7	303.2	307.8	312.4	316.9	321.6	326.4	331.1	336.0	340.7	343.7
67.5°	260.4	264.8	269.2	273.6	278.0	282.7	287.5	292.4	297.2	302.0	305.7
70°	232.5	237.0	241.6	246.2	250.8	255.6	260.8	266.0	271.1	276.3	280.1
72.5°	205.3	210.0	214.7	219.5	224.2	229.4	235.1	240.7	246.3	252.0	256.1
75°	164.5	169.7	174.9	180.0	185.2	191.0	197.3	203.7	210.0	216.4	220.3
77.5°	125.4	131.3	137.3	143.3	149.2	155.2	161.4	167.5	173.6	179.8	184.1
80°	101.1	107.0	113.0	118.9	124.9	131.2	138.0	144.7	151.5	158.3	162.6
82.5°	78.9	85.2	91.4	97.7	104.0	110.6	117.5	124.4	131.3	138.3	142.5
85°	49.2	55.7	62.3	68.9	75.4	82.1	89.1	96.1	103.1	109.9	114.3
87.5°	28.0	34.4	41.0	47.4	54.0	60.6	67.5	74.4	81.3	88.2	92.8
90°	14.7	21.8	28.8	35.8	42.9	50.1	57.4	64.8	72.2	79.6	84.6
92.5°	18.9	24.3	29.7	35.0	40.5	46.9	54.3	61.8	69.2	76.7	81.5
95°	33.8	38.7	43.7	48.6	53.5	57.6	61.1	64.6	68.0	71.5	76.3
97.5°	56.9	62.0	67.2	72.2	77.4	79.9	80.0	80.0	80.0	80.0	81.7
100°	74.9	79.3	83.8	88.2	92.6	98.2	104.9	111.6	118.3	125.0	116.3
102.5°	93.2	97.4	101.5	105.7	109.9	115.2	121.7	128.0	134.4	140.9	142.4
105°	122.6	126.1	129.6	133.1	136.6	141.4	147.4	153.3	159.3	165.2	169.3
107.5°	153.1	155.8	158.5	161.3	163.9	168.2	174.1	180.0	185.9	191.8	195.8
110°	173.0	175.4	177.7	180.1	182.5	186.6	192.3	198.0	203.8	209.5	213.0



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	192.3	194.4	196.5	198.6	200.8	204.6	210.1	215.6	221.1	226.6	229.9
115°	220.4	222.2	224.0	225.8	227.6	231.2	236.4	241.7	246.9	252.2	255.5
117.5°	249.4	250.4	251.2	252.2	253.0	256.1	261.3	266.6	271.7	277.0	279.9
120°	268.2	268.7	269.1	269.7	270.2	272.9	277.7	282.6	287.4	292.2	295.4
122.5°	284.0	284.6	285.2	285.8	286.4	289.0	293.5	298.0	302.6	307.1	310.1
125°	309.4	309.8	310.1	310.6	311.0	313.1	317.1	321.2	325.1	329.1	331.9
127.5°	332.9	333.0	333.3	333.6	333.8	335.5	338.7	341.9	345.1	348.3	351.0
130°	347.8	348.0	348.3	348.5	348.7	350.3	353.2	356.0	358.9	361.8	364.3
132.5°	362.1	362.5	363.0	363.4	363.9	365.1	367.0	369.0	370.9	372.9	375.7
135°	383.1	383.4	383.7	384.1	384.4	385.2	386.4	387.6	388.8	390.0	392.4
137.5°	402.5	402.8	403.0	403.4	403.6	404.1	404.6	405.1	405.6	406.1	408.5
140°	414.6	414.7	414.9	415.1	415.3	415.4	415.5	415.6	415.7	415.9	418.2
142.5°	426.1	426.0	425.9	425.9	425.9	425.9	426.1	426.3	426.4	426.5	428.4
145°	443.0	443.0	442.9	442.9	442.9	442.9	442.9	442.9	442.9	442.9	443.9
147.5°	456.9	456.8	456.8	456.8	456.8	456.8	456.9	457.0	457.1	457.2	457.6
150°	466.2	466.1	465.9	465.7	465.5	465.5	465.7	465.9	466.1	466.2	466.4
152.5°	475.3	474.9	474.5	474.2	473.7	473.6	473.8	474.0	474.2	474.3	474.5
155°	486.9	486.4	485.9	485.3	484.8	484.7	484.8	485.0	485.2	485.3	485.6
157.5°	495.8	495.5	495.2	494.9	494.6	494.5	494.5	494.5	494.5	494.6	494.8
160°	502.0	501.5	501.0	500.5	500.0	499.8	499.9	500.0	500.1	500.2	500.5
162.5°	507.0	506.5	506.0	505.5	505.0	504.8	504.9	505.0	505.1	505.1	505.6
165°	513.8	513.2	512.7	512.2	511.7	511.4	511.5	511.6	511.7	511.8	512.3
167.5°	518.8	518.2	517.7	517.1	516.6	516.3	516.4	516.5	516.6	516.7	517.4
170°	521.6	521.0	520.3	519.7	519.1	518.8	518.9	519.0	519.1	519.2	519.9
172.5°	523.4	522.8	522.2	521.6	521.0	520.8	520.9	521.1	521.2	521.4	522.0
175°	525.5	525.0	524.4	523.9	523.4	523.1	523.2	523.3	523.4	523.5	524.2
177.5°	526.4	526.0	525.6	525.1	524.7	524.5	524.6	524.7	524.8	524.9	525.3
180°	525.5	525.5	525.5	525.5	525.5	525.5	525.5	525.5	525.5	525.5	525.5



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**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
0°	912.1	912.1	912.1	912.1	912.1	912.1	912.1	912.1
2.5°	910.0	911.1	912.2	912.7	912.6	912.4	912.2	912.1
5°	907.2	908.8	910.4	911.1	910.9	910.7	910.5	910.3
7.5°	899.7	901.0	902.4	903.0	902.8	902.7	902.4	902.2
10°	892.5	893.9	895.3	895.9	895.7	895.5	895.3	895.1
12.5°	884.0	885.1	886.1	886.4	885.9	885.4	884.8	884.3
15°	868.0	869.2	870.4	870.6	869.8	868.9	868.1	867.4
17.5°	847.6	848.5	849.4	849.6	849.1	848.7	848.2	847.7
20°	831.9	832.5	833.1	833.4	833.4	833.4	833.4	833.4
22.5°	815.8	816.5	817.3	817.4	816.9	816.5	816.0	815.5
25°	790.3	791.1	791.9	791.8	790.7	789.8	788.8	787.8
27.5°	760.6	761.2	761.7	761.9	761.5	761.1	760.8	760.4
30°	740.3	740.7	741.1	741.2	741.0	740.8	740.6	740.4
32.5°	721.0	721.3	721.8	721.9	721.7	721.5	721.3	721.1
35°	689.7	690.3	691.0	691.2	691.2	691.2	691.2	691.2
37.5°	656.9	657.6	658.4	658.8	658.8	658.7	658.6	658.5
40°	634.6	635.5	636.3	636.9	637.2	637.7	638.1	638.4
42.5°	614.2	615.2	616.1	616.6	616.7	616.8	616.9	617.0
45°	581.3	582.7	584.1	584.9	585.1	585.3	585.5	585.7
47.5°	547.3	549.4	551.4	552.7	553.1	553.5	554.0	554.4
50°	524.8	527.0	529.2	530.5	531.2	531.8	532.4	533.0
52.5°	502.2	504.5	506.9	508.3	508.8	509.2	509.6	510.1
55°	466.7	468.9	471.1	472.5	473.3	474.2	474.9	475.7
57.5°	431.5	434.0	436.5	438.1	438.7	439.3	439.9	440.5
60°	407.4	410.4	413.5	415.2	415.8	416.4	417.0	417.6
62.5°	383.1	386.3	389.7	391.7	392.4	393.2	393.9	394.7
65°	346.6	349.7	352.6	354.5	355.3	356.1	356.9	357.7
67.5°	309.3	312.9	316.5	318.8	319.9	320.9	321.9	323.0
70°	283.9	287.7	291.4	293.9	295.1	296.3	297.5	298.7
72.5°	260.2	264.2	268.4	270.9	271.7	272.6	273.5	274.3
75°	224.4	228.3	232.3	234.8	235.7	236.8	237.7	238.8
77.5°	188.5	192.9	197.3	199.8	200.6	201.4	202.2	203.0
80°	167.0	171.4	175.7	178.3	179.2	179.9	180.7	181.5
82.5°	146.6	150.8	155.1	157.9	159.4	160.7	162.2	163.7
85°	118.7	123.1	127.5	130.4	132.1	133.6	135.3	136.8
87.5°	97.5	102.1	106.8	109.9	111.2	112.7	114.2	115.6
90°	89.5	94.5	99.5	102.9	104.5	106.2	107.9	109.5
92.5°	86.4	91.3	96.1	99.3	100.7	102.3	103.8	105.3
95°	81.1	85.9	90.7	93.8	95.2	96.6	98.0	99.4
97.5°	83.4	85.2	86.9	88.4	89.8	91.2	92.5	93.8
100°	107.5	98.8	90.1	86.2	87.0	87.8	88.7	89.5
102.5°	144.0	145.6	147.1	145.6	140.9	136.2	131.5	126.8
105°	173.2	177.2	181.2	183.8	185.1	186.4	187.7	189.0
107.5°	199.8	203.6	207.6	210.1	211.0	212.1	213.0	214.0
110°	216.5	220.1	223.6	226.1	227.6	229.0	230.5	232.0





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CATALOG NUMBER: S125DIW-S850D470U935-4F0-1E-UDD-D

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	233.2	236.4	239.8	242.0	243.3	244.6	245.8	247.1
115°	258.6	261.9	265.1	267.1	267.8	268.5	269.1	269.8
117.5°	282.8	285.8	288.7	290.8	291.9	293.0	294.1	295.2
120°	298.6	301.8	305.1	307.0	307.7	308.5	309.3	310.0
122.5°	313.2	316.2	319.3	321.2	321.8	322.5	323.2	323.9
125°	334.8	337.6	340.4	342.2	342.9	343.6	344.4	345.1
127.5°	353.8	356.5	359.3	360.9	361.4	362.0	362.5	363.0
130°	366.8	369.3	371.9	373.4	373.9	374.5	375.1	375.7
132.5°	378.4	381.1	383.8	385.4	385.8	386.2	386.6	387.0
135°	394.9	397.3	399.7	401.1	401.6	402.1	402.5	403.0
137.5°	410.9	413.3	415.7	417.0	417.3	417.7	418.0	418.4
140°	420.6	422.9	425.2	426.6	426.9	427.1	427.4	427.7
142.5°	430.3	432.3	434.2	435.2	435.5	435.8	436.1	436.4
145°	445.1	446.1	447.2	447.9	448.2	448.4	448.7	449.0
147.5°	458.1	458.5	458.9	459.0	458.7	458.5	458.1	457.9
150°	466.6	466.7	466.9	466.7	466.3	465.8	465.3	464.8
152.5°	474.7	474.8	475.0	474.8	474.2	473.6	473.1	472.5
155°	485.9	486.1	486.4	486.1	485.4	484.7	484.1	483.4
157.5°	495.1	495.3	495.6	495.4	494.7	494.0	493.4	492.7
160°	500.8	501.2	501.5	501.4	500.7	500.0	499.3	498.6
162.5°	506.1	506.6	507.0	507.0	506.2	505.4	504.6	503.9
165°	512.9	513.4	513.9	513.8	513.2	512.4	511.7	511.0
167.5°	518.0	518.6	519.2	519.2	518.3	517.5	516.8	516.0
170°	520.6	521.3	522.0	521.9	521.2	520.4	519.6	518.8
172.5°	522.6	523.2	523.9	523.8	523.1	522.3	521.5	520.7
175°	524.9	525.6	526.2	526.2	525.5	524.7	523.9	523.1
177.5°	525.8	526.2	526.8	526.8	526.2	525.6	525.0	524.5
180°	525.5	525.5	525.5	525.5	525.5	525.5	525.5	525.5

(END OF REPORT)