

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: P333408-930

Luminaire Tested: **S125DIW-S850D770U930-4F0-1E-UDD-D**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P333408-930
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-S850D770U930-4F0-1E-UDD-D
Description: DEFINE 5 DIRECT-INDIRECT WALL MOUNT LED LUMINAIRE
DOWNLIGHT 850 LUMENS PER FOOT, DROP SATIN WHITE DIFFUSER
UPLIGHT 770 LUMENS PER FOOT, NO LENS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5179.3 lumens
Efficiency: N/A
Efficacy: 115.1 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

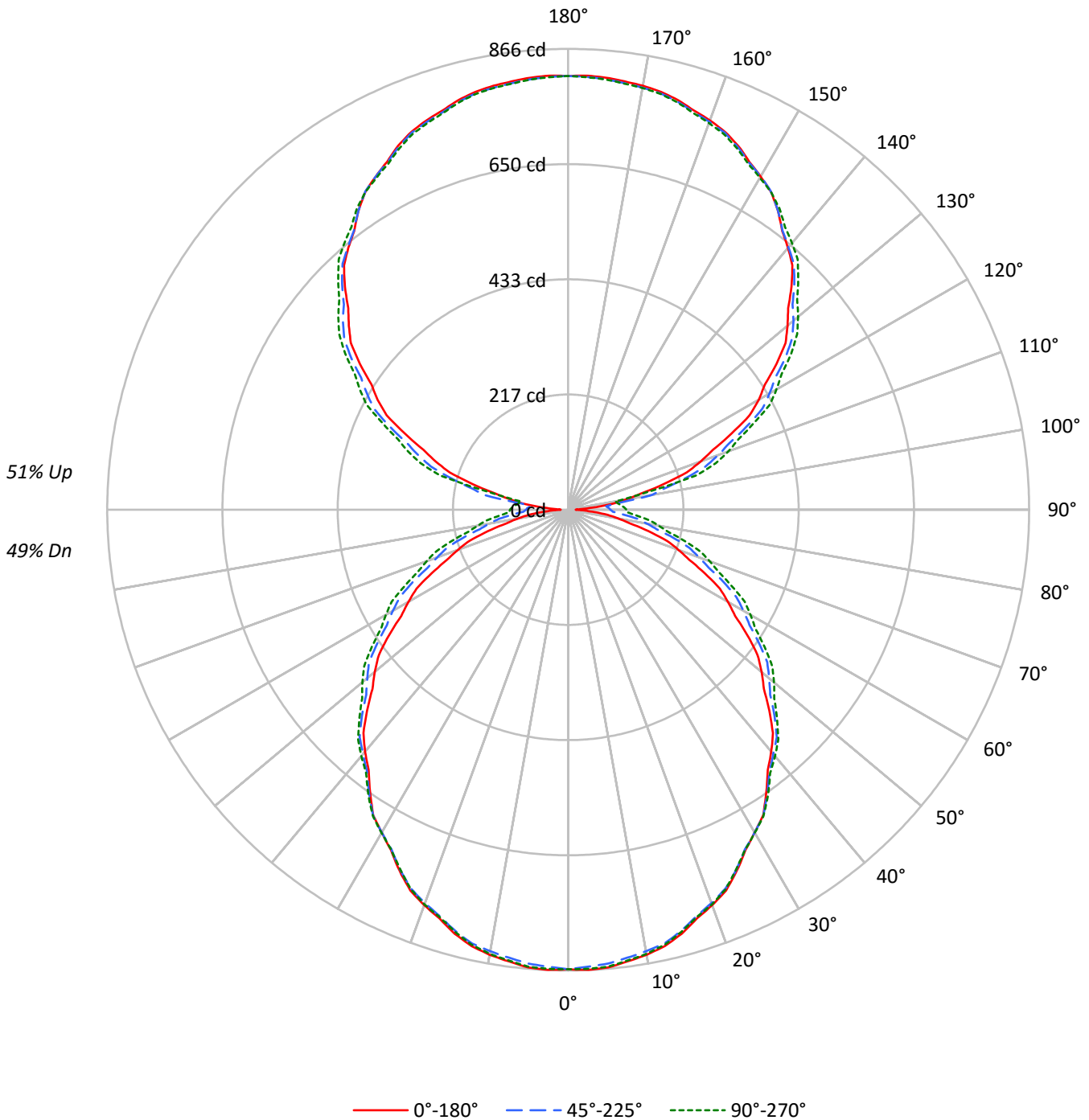
Input Watts (W): 45
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





TEST NUMBER: P333408-930

CATALOG NUMBER: S125DIW-S850D770U930-4F0-1E-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	107	107	107	107	98	98	98	98	83	83	83	68	68	68	55	55	55	49
1	97	92	88	84	89	85	81	78	71	69	66	59	57	55	47	46	45	39
2	88	80	74	68	80	74	68	63	62	58	54	51	48	46	41	39	37	32
3	80	70	62	56	73	65	58	53	54	49	45	45	41	38	36	34	31	27
4	73	62	54	48	67	57	50	44	48	43	38	40	36	33	32	29	27	23
5	67	55	47	41	61	51	43	38	43	37	33	36	31	28	29	26	23	20
6	62	49	41	35	56	46	38	33	39	33	29	32	28	24	26	23	20	17
7	57	44	36	31	52	41	34	29	35	29	25	29	25	22	24	21	18	15
8	53	40	32	27	48	37	30	25	32	26	22	27	22	19	22	19	16	14
9	49	37	29	24	45	34	27	23	29	24	20	25	20	17	20	17	15	12
10	46	34	26	21	42	31	25	20	27	22	18	23	18	16	19	16	13	11

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



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	81.7	1.6
10°-20°	231.8	4.5
20°-30°	344.8	6.7
30°-40°	408.4	7.9
40°-50°	422.2	8.2
50°-60°	389.0	7.5
60°-70°	314.4	6.1
70°-80°	210.6	4.1
80°-90°	110.9	2.1
90°-100°	90.9	1.8
100°-110°	227.7	4.4
110°-120°	361.3	7.0
120°-130°	442.0	8.5
130°-140°	464.5	9.0
140°-150°	430.4	8.3
150°-160°	347.0	6.7
160°-170°	224.4	4.3
170°-180°	77.4	1.5
0°-30°	658.3	12.7
0°-40°	1066.7	20.6
0°-60°	1877.9	36.3
0°-90°	2513.8	48.5
90°-120°	679.9	13.1
90°-150°	2016.8	38.9
90°-180°	2666.0	51.5
0°-180°	5179.3	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	46	79	101	109	10
95°	45	65	72	92	99	53
105°	185	202	227	243	249	196
115°	338	348	370	382	384	336
125°	478	482	498	509	512	426
135°	593	596	601	610	611	457
145°	686	687	687	691	692	429
155°	755	752	753	754	750	348
165°	797	793	794	797	793	225
175°	815	812	812	816	811	78
180°	815	815	815	815	815	



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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°	26.6	32.8	39.0	45.2	51.4	57.9	64.5	71.1	77.6	84.2	88.7
90°	14.2	21.3	28.4	35.5	42.6	49.7	57.1	64.4	71.7	79.1	84.1
92.5°	21.5	26.3	31.1	36.0	40.8	46.9	54.2	61.6	69.0	76.4	81.2
95°	45.4	49.9	54.4	58.9	63.4	66.3	67.6	68.9	70.2	71.5	76.3
97.5°	81.9	87.0	92.1	97.3	102.4	103.0	99.1	95.1	91.2	87.3	87.5
100°	110.2	114.5	118.9	123.3	127.6	133.1	139.7	146.2	152.8	159.3	143.2
102.5°	139.0	143.2	147.3	151.5	155.6	160.9	167.1	173.2	179.4	185.6	185.6
105°	185.2	188.7	192.3	195.8	199.4	204.0	209.7	215.3	220.9	226.6	230.3
107.5°	233.3	235.8	238.4	240.9	243.5	247.6	253.3	259.0	264.7	270.4	274.1
110°	264.5	266.8	269.0	271.3	273.5	277.4	283.0	288.5	294.0	299.5	302.7



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	294.5	296.6	298.7	300.8	303.0	306.6	311.9	317.2	322.5	327.8	330.7
115°	338.5	340.6	342.5	344.5	346.5	350.0	355.1	360.0	365.1	370.1	373.0
117.5°	384.3	385.1	385.9	386.7	387.6	390.5	395.7	400.8	405.9	411.2	413.6
120°	413.2	413.7	414.1	414.5	414.9	417.5	422.2	427.0	431.7	436.4	439.4
122.5°	438.1	439.0	439.7	440.5	441.2	443.8	448.2	452.6	456.9	461.3	464.1
125°	477.6	478.3	479.2	479.9	480.6	482.9	486.7	490.4	494.2	497.9	500.4
127.5°	514.6	515.0	515.5	516.0	516.5	518.3	521.3	524.2	527.3	530.3	532.8
130°	537.8	538.3	538.7	539.2	539.7	541.4	544.1	546.9	549.7	552.4	554.6
132.5°	560.3	561.0	561.7	562.6	563.3	564.5	566.2	567.9	569.7	571.4	574.0
135°	593.1	593.7	594.4	595.0	595.6	596.4	597.5	598.5	599.6	600.6	602.8
137.5°	623.3	623.8	624.4	624.9	625.5	625.9	626.3	626.7	627.1	627.5	629.8
140°	642.4	642.7	642.9	643.2	643.5	643.7	643.7	643.8	643.8	643.8	646.2
142.5°	660.3	660.3	660.3	660.3	660.3	660.5	660.6	660.9	661.1	661.4	663.2
145°	686.5	686.6	686.6	686.7	686.8	686.9	686.9	686.9	686.9	686.9	687.9
147.5°	708.7	708.6	708.5	708.5	708.4	708.5	708.7	708.7	708.9	709.1	709.6
150°	723.1	722.8	722.6	722.3	722.0	722.0	722.3	722.6	722.8	723.1	723.4
152.5°	737.1	736.5	736.0	735.4	734.7	734.6	734.9	735.2	735.4	735.6	736.0
155°	755.1	754.3	753.5	752.7	752.0	751.6	752.0	752.2	752.4	752.7	753.1
157.5°	769.0	768.6	768.1	767.6	767.1	766.9	766.9	767.0	767.0	767.0	767.4
160°	778.7	777.9	777.1	776.2	775.5	775.1	775.3	775.4	775.5	775.7	776.2
162.5°	786.4	785.6	784.8	784.0	783.2	782.9	783.0	783.2	783.3	783.4	784.2
165°	796.8	796.0	795.2	794.4	793.6	793.3	793.4	793.5	793.7	793.8	794.6
167.5°	804.5	803.7	802.9	802.1	801.2	800.9	801.0	801.1	801.3	801.4	802.3
170°	808.9	808.0	807.0	806.1	805.1	804.7	804.9	805.0	805.1	805.3	806.3
172.5°	811.8	810.9	809.9	808.9	808.0	807.7	808.0	808.2	808.5	808.7	809.6
175°	815.0	814.2	813.3	812.5	811.7	811.4	811.5	811.6	811.8	812.0	813.0
177.5°	816.4	815.7	815.1	814.5	813.8	813.5	813.7	813.8	813.8	814.0	814.7
180°	815.0	815.0	815.0	815.0	815.0	815.0	815.0	815.0	815.0	815.0	815.0



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CATALOG NUMBER: S125DIW-S850D770U930-4F0-1E-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°	93.2	97.6	102.1	105.0	106.4	107.8	109.2	110.6
90°	89.1	94.1	99.1	102.5	104.2	105.9	107.6	109.3
92.5°	86.1	90.9	95.8	99.0	100.4	102.0	103.5	105.0
95°	81.1	85.9	90.7	93.8	95.1	96.4	97.8	99.1
97.5°	87.6	87.8	88.0	88.7	89.9	91.2	92.5	93.8
100°	127.2	111.1	95.1	87.4	88.0	88.5	89.1	89.8
102.5°	185.6	185.6	185.6	181.6	173.7	165.7	157.7	149.7
105°	234.2	237.9	241.7	244.1	245.3	246.5	247.7	248.8
107.5°	277.9	281.6	285.4	287.6	288.4	289.2	289.9	290.7
110°	305.9	309.1	312.3	314.5	316.0	317.5	318.9	320.3



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CATALOG NUMBER: S125DIW-S850D770U930-4F0-1E-UDD-D

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	333.6	336.6	339.4	341.4	342.6	343.7	344.9	346.0
115°	375.9	378.6	381.5	383.1	383.4	383.8	384.1	384.4
117.5°	416.1	418.7	421.1	422.8	423.8	424.7	425.6	426.6
120°	442.3	445.2	448.2	449.9	450.3	450.8	451.2	451.7
122.5°	466.8	469.6	472.4	473.9	474.3	474.7	475.0	475.4
125°	502.9	505.3	507.8	509.3	509.9	510.4	510.9	511.5
127.5°	535.2	537.8	540.2	541.5	541.6	541.8	541.8	541.9
130°	556.8	559.1	561.3	562.6	562.9	563.1	563.4	563.7
132.5°	576.6	579.1	581.6	583.0	583.1	583.3	583.3	583.5
135°	605.0	607.2	609.4	610.5	610.6	610.7	610.9	611.0
137.5°	632.1	634.4	636.6	637.8	637.8	637.9	638.0	638.0
140°	648.6	650.9	653.2	654.4	654.3	654.3	654.2	654.1
142.5°	665.0	666.8	668.6	669.5	669.4	669.4	669.4	669.3
145°	689.0	690.1	691.2	691.7	691.6	691.5	691.5	691.5
147.5°	710.0	710.5	710.9	710.9	710.2	709.6	709.0	708.3
150°	723.7	723.9	724.2	723.9	723.0	722.1	721.2	720.3
152.5°	736.2	736.5	736.8	736.5	735.5	734.6	733.6	732.7
155°	753.5	753.9	754.3	754.0	752.9	751.9	750.8	749.7
157.5°	767.8	768.3	768.7	768.3	767.3	766.2	765.2	764.1
160°	776.7	777.3	777.8	777.6	776.5	775.4	774.4	773.2
162.5°	784.9	785.6	786.4	786.2	785.1	783.8	782.7	781.5
165°	795.4	796.2	797.0	796.9	795.8	794.8	793.7	792.6
167.5°	803.3	804.3	805.3	805.2	804.0	802.7	801.5	800.3
170°	807.4	808.5	809.6	809.5	808.3	807.1	805.8	804.7
172.5°	810.6	811.5	812.5	812.4	811.2	810.0	808.8	807.6
175°	814.1	815.1	816.2	816.1	815.0	813.8	812.5	811.3
177.5°	815.5	816.2	817.0	816.9	816.0	815.2	814.3	813.5
180°	815.0	815.0	815.0	815.0	815.0	815.0	815.0	815.0

(END OF REPORT)