

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: P333415-927

Luminaire Tested: **S125DIW-S850D1050U927-4F0-1E-UDD-D1**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P333415-927
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-11,
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S125DIW-S850D1050U927-4F0-1E-UDD-D1
Description: DEFINE 5 DIRECT-INDIRECT WALL MOUNT LED LUMINAIRE
DOWNLIGHT 850 LUMENS PER FOOT, DROP SATIN WHITE DIFFUSER
UPLIGHT 1050 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5479.7 lumens
Efficiency: N/A
Efficacy: 104.2 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

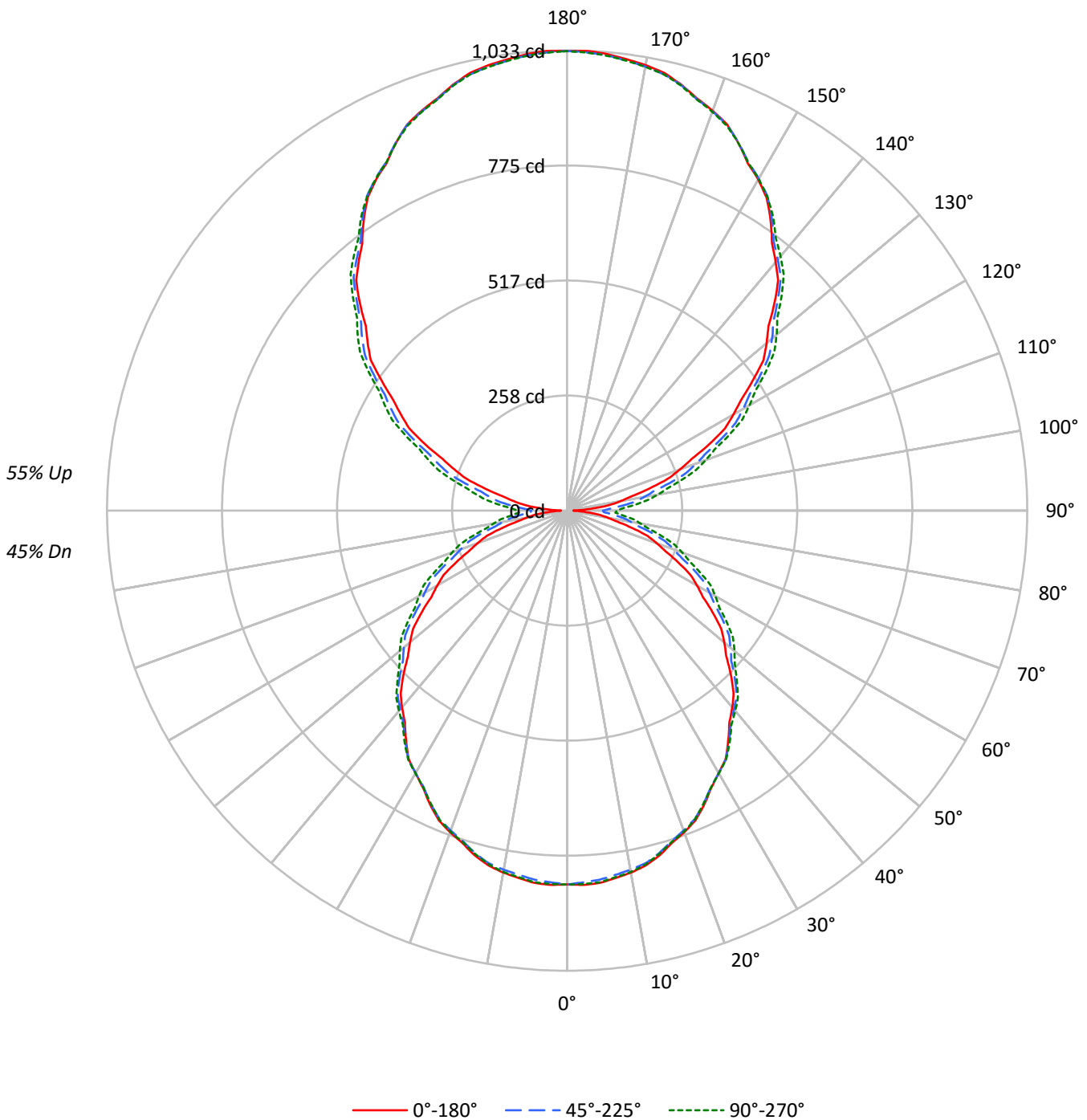
Input Watts (W): 52.6
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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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	106	106	106	106	97	97	97	97	80	80	80	65	65	65	51	51	51	45
1	96	91	87	83	88	84	80	77	69	67	65	56	54	53	44	43	42	36
2	87	79	73	68	79	73	67	63	60	56	53	49	46	44	38	36	35	30
3	79	70	62	56	72	64	57	52	53	48	44	43	40	37	34	31	29	25
4	72	61	53	47	66	56	49	44	47	42	37	38	34	31	30	27	25	21
5	66	55	46	40	60	50	43	37	42	36	32	34	30	27	27	24	22	18
6	61	49	41	35	56	45	38	32	38	32	28	31	27	23	24	21	19	16
7	56	44	36	30	51	41	33	28	34	29	24	28	24	21	22	19	17	14
8	52	40	32	27	48	37	30	25	31	26	22	26	21	18	20	17	15	13
9	49	36	29	24	44	34	27	22	28	23	19	24	19	16	19	16	14	11
10	45	33	26	21	41	31	24	20	26	21	17	22	18	15	18	14	12	10

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	5420	5420	5420
5°	5431	5320	5337
10°	5392	5225	5217
15°	5329	5111	5064
20°	5241	4970	4912
25°	5139	4820	4724
30°	5014	4654	4554
35°	4897	4502	4398
40°	4778	4342	4241
45°	4644	4205	4102
50°	4517	4056	3979
55°	4363	3916	3833
60°	4195	3756	3686
65°	4020	3589	3520
70°	3820	3359	3349
75°	3505	3139	3139
80°	3093	2872	2910
85°	2705	2693	2839



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	79.4	1.4
10°-20°	225.3	4.1
20°-30°	335.0	6.1
30°-40°	396.8	7.2
40°-50°	410.3	7.5
50°-60°	377.9	6.9
60°-70°	305.5	5.6
70°-80°	204.6	3.7
80°-90°	108.4	2.0
90°-100°	128.6	2.3
100°-110°	247.9	4.5
110°-120°	375.0	6.8
120°-130°	471.5	8.6
130°-140°	516.8	9.4
140°-150°	500.9	9.1
150°-160°	419.5	7.7
160°-170°	278.8	5.1
170°-180°	97.6	1.8
0°-30°	639.6	11.7
0°-40°	1036.4	18.9
0°-60°	1824.7	33.3
0°-90°	2443.1	44.6
90°-120°	751.5	13.7
90°-150°	2240.7	40.9
90°-180°	3037.0	55.4
0°-180°	5479.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	839	839	839	839	839	
5°	839	837	832	838	838	80
15°	801	802	796	801	798	226
25°	728	730	726	729	725	335
35°	630	636	634	636	636	394
45°	519	528	532	538	539	400
55°	399	412	425	434	438	357
65°	275	294	314	325	329	273
75°	151	173	199	215	220	161
85°	45	72	101	119	126	48
90°	14	47	80	102	111	12
95°	63	87	122	145	153	64
105°	190	208	237	258	267	203
115°	351	361	383	396	401	347
125°	508	513	529	541	544	455
135°	658	662	669	679	680	507
145°	796	799	801	805	806	497
155°	910	910	911	914	910	419
165°	990	988	989	992	987	279
175°	1029	1026	1026	1030	1025	98
180°	1031	1031	1031	1031	1031	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	839.2	839.2	839.2	839.2	839.2	839.2	839.2	839.2	839.2	839.2	839.2
2.5°	841.1	840.9	840.6	840.3	840.0	839.3	838.3	837.3	836.2	835.2	836.2
5°	839.2	838.8	838.4	838.0	837.7	836.9	835.6	834.3	833.1	831.8	833.2
7.5°	831.8	831.6	831.5	831.3	831.2	830.4	829.2	827.8	826.5	825.2	826.5
10°	825.2	825.2	825.2	825.2	825.2	824.5	823.0	821.6	820.1	818.6	819.9
12.5°	815.9	816.1	816.3	816.4	816.6	816.0	814.9	813.7	812.5	811.4	812.4
15°	801.4	801.5	801.7	801.8	802.1	801.5	800.3	799.0	797.6	796.4	797.5
17.5°	782.3	782.6	783.0	783.3	783.7	783.2	782.0	780.7	779.4	778.2	779.0
20°	768.4	768.8	769.1	769.5	769.9	769.4	768.2	766.9	765.6	764.3	764.9
22.5°	752.7	753.3	753.9	754.6	755.3	754.9	753.4	752.0	750.6	749.2	749.9
25°	728.1	728.6	729.2	729.8	730.3	730.0	729.0	727.9	726.7	725.6	726.4
27.5°	700.8	701.6	702.4	703.2	704.0	703.8	702.6	701.3	700.1	698.9	699.3
30°	680.4	681.5	682.6	683.7	684.8	684.8	683.7	682.6	681.5	680.4	680.8
32.5°	661.9	662.9	663.8	664.8	665.7	665.8	665.0	664.2	663.5	662.7	663.0
35°	630.2	631.5	632.8	634.1	635.3	635.7	635.2	634.6	634.1	633.5	634.1
37.5°	598.4	599.6	600.8	602.0	603.2	603.6	603.4	603.2	603.1	602.9	603.6
40°	576.7	578.2	579.6	581.1	582.6	583.2	583.0	582.9	582.7	582.5	583.2
42.5°	553.0	554.9	556.8	558.7	560.6	561.8	562.2	562.6	563.0	563.4	564.3
45°	519.1	521.2	523.2	525.1	527.2	528.6	529.6	530.4	531.4	532.3	533.6
47.5°	484.4	486.3	488.1	490.0	491.9	493.6	495.2	496.8	498.3	499.9	501.8
50°	460.7	462.7	464.8	466.8	468.7	470.8	472.8	474.8	476.8	478.8	480.9
52.5°	435.7	438.2	440.6	443.1	445.5	448.0	450.4	452.9	455.3	457.8	459.9
55°	399.0	402.0	404.9	407.8	410.7	413.7	416.6	419.5	422.4	425.3	427.4
57.5°	361.5	365.0	368.5	372.0	375.6	379.0	382.4	385.7	389.0	392.4	394.7
60°	336.5	340.2	343.8	347.5	351.1	354.8	358.5	362.1	365.8	369.4	372.2
62.5°	312.1	315.8	319.5	323.1	326.8	330.6	334.5	338.5	342.4	346.3	349.4
65°	274.8	279.0	283.2	287.4	291.6	295.9	300.3	304.7	309.1	313.5	316.2
67.5°	239.6	243.7	247.7	251.8	255.8	260.1	264.5	269.0	273.5	277.9	281.2
70°	213.9	218.1	222.3	226.6	230.8	235.2	240.0	244.7	249.5	254.2	257.7
72.5°	188.9	193.2	197.6	201.9	206.3	211.0	216.3	221.5	226.6	231.9	235.6
75°	151.4	156.1	160.9	165.6	170.4	175.7	181.6	187.4	193.2	199.1	202.7
77.5°	115.3	120.8	126.4	131.8	137.3	142.8	148.5	154.1	159.7	165.4	169.4
80°	93.0	98.5	103.9	109.4	114.9	120.7	127.0	133.2	139.4	145.6	149.6
82.5°	72.6	78.3	84.1	89.9	95.7	101.7	108.1	114.5	120.8	127.2	131.1
85°	45.2	51.3	57.4	63.4	69.4	75.6	82.0	88.4	94.8	101.2	105.2
87.5°	25.8	32.0	38.1	44.2	50.4	56.6	63.1	69.6	76.0	82.5	86.9
90°	13.9	21.2	28.5	35.8	43.1	50.5	57.9	65.4	72.9	80.3	85.4
92.5°	31.3	37.7	44.1	50.5	56.9	64.1	71.9	79.9	87.8	95.6	100.9
95°	62.9	68.0	73.1	78.2	83.3	89.8	97.8	105.8	113.8	121.8	127.1
97.5°	96.4	100.8	105.2	109.6	114.1	120.5	129.0	137.4	145.9	154.3	159.4
100°	121.4	125.2	129.1	132.9	136.8	142.8	151.0	159.1	167.3	175.5	180.9
102.5°	148.4	152.7	156.9	161.1	165.4	171.0	177.8	184.7	191.6	198.5	204.0
105°	190.4	194.2	198.0	201.8	205.7	210.9	217.5	223.9	230.5	237.1	241.9
107.5°	236.9	240.3	243.7	247.1	250.5	255.2	261.3	267.4	273.5	279.6	283.7
110°	269.0	272.1	275.2	278.3	281.4	285.7	291.4	297.1	302.7	308.4	312.4



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	302.5	304.7	306.9	309.1	311.3	315.2	320.9	326.5	332.2	337.9	341.4
115°	350.9	352.9	354.9	356.9	358.9	362.4	367.5	372.6	377.7	382.9	386.0
117.5°	399.5	400.7	401.9	403.0	404.2	407.2	412.0	416.8	421.6	426.4	429.7
120°	430.3	431.8	433.2	434.7	436.1	439.0	443.4	447.7	452.2	456.5	459.6
122.5°	463.1	463.7	464.2	464.8	465.4	467.9	472.5	477.0	481.5	486.0	488.9
125°	508.2	509.1	509.9	510.9	511.7	514.1	517.9	521.7	525.6	529.4	532.0
127.5°	555.6	556.0	556.3	556.8	557.2	559.0	562.2	565.5	568.7	571.9	574.4
130°	584.4	585.1	585.8	586.5	587.2	589.1	592.0	594.9	597.8	600.7	603.1
132.5°	612.7	614.1	615.5	617.0	618.4	620.0	621.9	623.8	625.7	627.6	630.0
135°	658.2	659.1	660.0	660.9	661.8	663.0	664.4	665.9	667.3	668.8	671.1
137.5°	701.1	702.0	702.9	703.8	704.6	705.6	706.6	707.7	708.7	709.6	712.0
140°	728.1	729.0	729.8	730.7	731.7	732.5	733.2	733.9	734.6	735.3	737.7
142.5°	755.7	756.3	756.9	757.5	758.1	758.8	759.5	760.2	760.9	761.6	763.5
145°	796.3	796.8	797.3	797.9	798.4	798.9	799.5	800.0	800.6	801.1	802.0
147.5°	833.1	833.5	833.9	834.2	834.6	835.0	835.4	835.8	836.3	836.7	837.4
150°	858.1	857.9	857.7	857.5	857.4	857.6	858.3	859.0	859.8	860.5	860.5
152.5°	878.6	878.8	879.1	879.4	879.6	879.9	880.2	880.4	880.7	881.1	881.5
155°	910.2	910.2	910.2	910.2	910.2	910.3	910.5	910.7	910.9	911.1	911.8
157.5°	938.5	938.1	937.7	937.3	936.9	936.8	937.0	937.2	937.4	937.5	938.3
160°	955.2	954.7	954.1	953.6	953.1	952.9	953.1	953.2	953.4	953.6	954.3
162.5°	969.9	969.6	969.2	968.8	968.4	968.2	968.3	968.3	968.4	968.4	969.2
165°	989.8	989.4	989.0	988.6	988.2	988.2	988.4	988.6	988.7	988.9	989.6
167.5°	1006.4	1005.7	1005.0	1004.2	1003.5	1003.2	1003.2	1003.2	1003.2	1003.2	1004.2
170°	1015.4	1014.7	1014.0	1013.3	1012.6	1012.2	1012.2	1012.2	1012.2	1012.2	1013.3
172.5°	1021.8	1021.1	1020.4	1019.7	1019.0	1018.6	1018.6	1018.6	1018.6	1018.6	1019.7
175°	1029.0	1028.3	1027.6	1026.9	1026.2	1025.8	1025.8	1025.8	1025.8	1025.8	1026.9
177.5°	1032.8	1032.1	1031.6	1031.0	1030.5	1030.1	1029.9	1029.8	1029.7	1029.5	1030.4
180°	1031.4	1031.4	1031.4	1031.4	1031.4	1031.4	1031.4	1031.4	1031.4	1031.4	1031.4



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	839.2	839.2	839.2	839.2	839.2	839.2	839.2	839.2
2.5°	837.3	838.3	839.3	839.8	839.6	839.5	839.3	839.2
5°	834.7	836.1	837.7	838.3	838.0	837.9	837.7	837.6
7.5°	827.8	829.0	830.3	830.8	830.7	830.5	830.3	830.1
10°	821.2	822.4	823.7	824.3	824.1	823.9	823.7	823.6
12.5°	813.3	814.4	815.3	815.6	815.1	814.6	814.1	813.7
15°	798.6	799.7	800.8	801.0	800.3	799.5	798.8	798.0
17.5°	779.8	780.7	781.5	781.7	781.3	780.9	780.4	780.0
20°	765.4	766.0	766.5	766.8	766.8	766.8	766.8	766.8
22.5°	750.6	751.2	751.9	752.1	751.6	751.2	750.8	750.4
25°	727.1	727.9	728.6	728.5	727.5	726.7	725.7	724.8
27.5°	699.8	700.4	700.8	701.0	700.6	700.3	700.0	699.7
30°	681.1	681.5	681.8	682.0	681.8	681.6	681.4	681.2
32.5°	663.4	663.7	664.1	664.2	664.0	663.8	663.6	663.5
35°	634.6	635.2	635.7	636.0	636.0	636.0	636.0	636.0
37.5°	604.4	605.1	605.8	606.2	606.1	606.0	605.9	605.9
40°	583.9	584.7	585.4	586.0	586.3	586.7	587.1	587.4
42.5°	565.1	566.0	566.9	567.4	567.4	567.5	567.6	567.7
45°	534.9	536.1	537.4	538.1	538.4	538.5	538.7	538.9
47.5°	503.6	505.5	507.3	508.5	508.9	509.3	509.7	510.1
50°	482.8	484.9	486.9	488.1	488.7	489.3	489.8	490.4
52.5°	462.1	464.2	466.4	467.7	468.1	468.5	468.9	469.3
55°	429.4	431.4	433.4	434.7	435.5	436.3	437.0	437.7
57.5°	397.0	399.3	401.6	403.1	403.6	404.2	404.7	405.3
60°	374.9	377.6	380.4	382.0	382.5	383.1	383.7	384.2
62.5°	352.4	355.5	358.5	360.4	361.1	361.8	362.4	363.1
65°	318.9	321.7	324.4	326.1	326.9	327.6	328.4	329.1
67.5°	284.6	287.9	291.2	293.3	294.3	295.2	296.2	297.1
70°	261.2	264.7	268.2	270.4	271.5	272.6	273.7	274.8
72.5°	239.4	243.1	246.9	249.2	250.0	250.8	251.6	252.4
75°	206.4	210.1	213.7	216.0	216.9	217.9	218.7	219.7
77.5°	173.4	177.4	181.5	183.9	184.6	185.3	186.0	186.8
80°	153.7	157.7	161.7	164.1	164.9	165.6	166.3	167.0
82.5°	134.9	138.8	142.7	145.3	146.6	147.9	149.2	150.6
85°	109.2	113.3	117.3	120.0	121.5	122.9	124.5	125.9
87.5°	91.3	95.7	100.1	103.0	104.3	105.8	107.1	108.5
90°	90.5	95.6	100.7	104.2	106.0	107.8	109.6	111.4
92.5°	106.2	111.4	116.6	120.0	121.8	123.4	125.1	126.7
95°	132.4	137.7	143.0	146.4	148.1	149.6	151.3	153.0
97.5°	164.4	169.4	174.4	177.7	179.1	180.5	182.0	183.5
100°	186.3	191.8	197.3	200.7	202.2	203.6	205.0	206.5
102.5°	209.4	214.8	220.3	223.8	225.4	227.0	228.6	230.2
105°	246.5	251.3	256.0	259.3	261.1	262.9	264.7	266.6
107.5°	287.9	292.0	296.2	298.8	299.9	301.0	302.1	303.2
110°	316.4	320.4	324.4	326.9	328.0	329.2	330.3	331.4



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CATALOG NUMBER: S125DIW-S850D1050U927-4F0-1E-UDD-D1

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	345.0	348.6	352.1	354.4	355.4	356.3	357.3	358.2
115°	389.1	392.2	395.3	397.4	398.2	399.2	400.1	401.0
117.5°	432.9	436.2	439.4	441.3	441.9	442.4	442.9	443.5
120°	462.8	465.9	469.0	470.7	471.1	471.5	471.9	472.3
122.5°	491.6	494.5	497.3	499.0	499.5	500.0	500.6	501.1
125°	534.6	537.1	539.7	541.4	542.1	542.8	543.6	544.3
127.5°	576.9	579.5	582.0	583.6	584.3	585.0	585.7	586.5
130°	605.5	607.8	610.2	611.7	612.3	612.8	613.4	613.9
132.5°	632.4	634.8	637.2	638.5	638.7	639.1	639.3	639.5
135°	673.5	675.9	678.3	679.6	679.8	680.0	680.2	680.4
137.5°	714.4	716.8	719.1	720.3	720.1	719.9	719.8	719.6
140°	740.1	742.4	744.8	745.8	745.7	745.5	745.4	745.2
142.5°	765.5	767.4	769.4	770.2	770.1	769.9	769.8	769.6
145°	802.9	803.8	804.7	805.3	805.5	805.6	805.9	806.0
147.5°	838.1	838.9	839.6	839.6	838.6	837.7	836.9	836.0
150°	860.5	860.5	860.5	860.4	860.2	860.1	859.8	859.7
152.5°	881.9	882.3	882.7	882.6	882.0	881.5	880.8	880.2
155°	912.5	913.2	913.9	913.8	912.9	912.0	911.2	910.2
157.5°	939.0	939.7	940.4	940.2	939.0	937.8	936.6	935.5
160°	955.1	955.8	956.5	956.3	955.5	954.6	953.7	952.8
162.5°	970.1	970.9	971.8	971.7	970.7	969.6	968.6	967.6
165°	990.3	991.0	991.7	991.6	990.5	989.4	988.4	987.3
167.5°	1005.4	1006.4	1007.5	1007.5	1006.4	1005.3	1004.2	1003.1
170°	1014.3	1015.4	1016.4	1016.4	1015.1	1013.9	1012.6	1011.4
172.5°	1020.7	1021.8	1022.9	1022.9	1021.8	1020.6	1019.5	1018.4
175°	1027.9	1029.0	1030.2	1030.0	1028.8	1027.5	1026.3	1025.0
177.5°	1031.3	1032.1	1032.9	1032.8	1031.9	1030.9	1029.9	1028.9
180°	1031.4	1031.4	1031.4	1031.4	1031.4	1031.4	1031.4	1031.4

(END OF REPORT)