

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: P332762-930

Luminaire Tested: **S124DIW-S575D1050U930-4F0-1E-UDD-F1**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P332762-930
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-10,
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S124DIW-S575D1050U930-4F0-1E-UDD-F1
Description: DEFINE 4 DIRECT-INDIRECT WALL MOUNT LED LUMINAIRE
DOWNLIGHT 575 LUMENS PER FOOT, FLUSH 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: 4997.9 lumens
Efficiency: N/A
Efficacy: 110.6 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.17 / 1.3
Luminous Opening: Rectangular (W 0.33' x L: 4' x H: 0')
CIE Type: General Diffuse

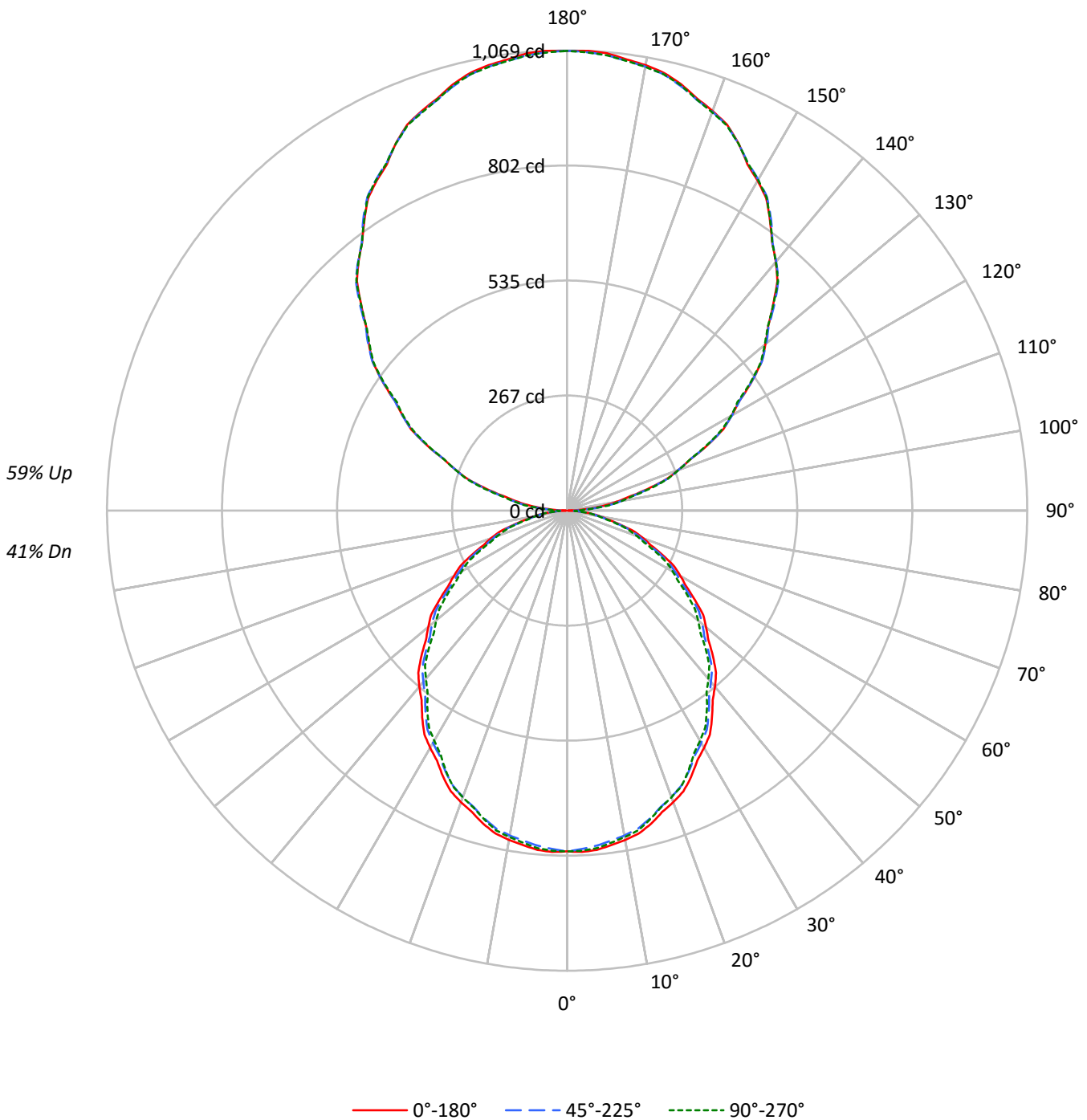
Input Watts (W): 45.2
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	50	30	10	0	
RCR																						
0	105	105	105	105	96	96	96	96	78	78	78	62	62	62	48	48	48	41				
1	96	91	88	84	87	83	80	77	68	66	64	55	53	52	42	41	40	34				
2	87	80	74	69	79	73	68	63	60	56	53	48	45	43	37	35	34	29				
3	79	70	63	57	72	64	58	53	53	48	44	42	39	36	33	31	29	24				
4	73	62	54	48	66	57	50	45	47	42	38	38	34	31	29	27	25	21				
5	67	55	47	41	60	51	44	38	42	37	33	34	30	27	26	24	22	18				
6	61	49	41	36	56	45	38	33	38	32	28	31	27	24	24	21	19	16				
7	57	45	37	31	51	41	34	29	34	29	25	28	24	21	22	19	17	14				
8	52	40	33	27	48	37	30	26	31	26	22	25	21	19	20	17	15	13				
9	49	37	29	24	44	34	27	23	28	23	20	23	19	17	18	16	14	11				
10	46	34	27	22	42	31	25	20	26	21	18	22	18	15	17	14	12	10				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	6391	6391	6391
5°	6412	6334	6380
10°	6370	6283	6314
15°	6294	6193	6209
20°	6192	6082	6088
25°	6075	5956	5940
30°	5931	5808	5754
35°	5784	5653	5577
40°	5630	5476	5376
45°	5469	5302	5200
50°	5291	5148	4987
55°	5098	4947	4787
60°	4907	4721	4579
65°	4690	4508	4327
70°	4447	4223	4057
75°	4077	3877	3780
80°	3626	3477	3394
85°	3168	3057	3001



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	74.6	1.5
10°-20°	210.1	4.2
20°-30°	309.2	6.2
30°-40°	359.5	7.2
40°-50°	359.5	7.2
50°-60°	314.5	6.3
60°-70°	233.5	4.7
70°-80°	132.7	2.7
80°-90°	41.5	0.8
90°-100°	70.4	1.4
100°-110°	208.7	4.2
110°-120°	354.2	7.1
120°-130°	467.0	9.3
130°-140°	524.5	10.5
140°-150°	515.4	10.3
150°-160°	433.5	8.7
160°-170°	288.4	5.8
170°-180°	101.0	2.0
0°-30°	593.9	11.9
0°-40°	953.4	19.1
0°-60°	1627.3	32.6
0°-90°	2035.0	40.7
90°-120°	633.2	12.7
90°-150°	2140.1	42.8
90°-180°	2963.0	59.3
0°-180°	4997.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	792	792	792	792	792	
5°	791	788	782	788	787	75
15°	753	750	741	744	743	212
25°	682	677	669	669	667	314
35°	587	582	574	569	566	367
45°	479	474	464	458	456	369
55°	362	360	352	344	340	324
65°	246	242	236	230	226	243
75°	131	128	124	122	121	139
85°	34	34	33	33	32	38
90°	2	11	18	23	25	5
95°	50	57	63	65	65	55
105°	192	193	197	199	202	204
115°	360	360	358	358	357	355
125°	524	524	524	522	520	467
135°	676	681	681	680	677	523
145°	822	825	826	825	823	514
155°	942	942	941	944	941	433
165°	1025	1023	1021	1025	1022	289
175°	1066	1062	1061	1066	1061	101
180°	1068	1068	1068	1068	1068	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	791.7	791.7	791.7	791.7	791.7	791.7	791.7	791.7	791.7	791.7	791.7
2.5°	793.8	793.4	793.1	792.8	792.5	791.7	790.4	789.2	787.9	786.7	787.8
5°	791.2	790.6	790.0	789.5	788.9	787.8	786.3	784.7	783.2	781.6	783.2
7.5°	783.7	783.2	782.7	782.1	781.5	780.4	778.7	777.0	775.2	773.5	774.8
10°	777.1	776.7	776.1	775.5	774.9	773.7	771.9	770.1	768.3	766.4	767.5
12.5°	768.6	768.0	767.4	766.9	766.3	765.1	763.1	761.2	759.2	757.2	758.5
15°	753.1	752.5	752.0	751.4	750.8	749.5	747.4	745.3	743.1	741.0	741.8
17.5°	734.4	733.7	733.0	732.3	731.6	730.3	728.2	726.3	724.2	722.3	722.8
20°	720.7	720.0	719.3	718.6	717.9	716.5	714.4	712.2	710.1	708.0	708.4
22.5°	706.0	705.1	704.2	703.2	702.3	700.7	698.6	696.5	694.4	692.3	693.1
25°	682.0	681.0	680.0	679.1	678.1	676.6	674.6	672.6	670.7	668.7	668.9
27.5°	654.6	653.6	652.6	651.6	650.5	649.1	647.3	645.5	643.6	641.8	641.5
30°	636.3	635.2	634.1	632.9	631.9	630.3	628.5	626.6	624.8	623.1	622.5
32.5°	617.0	616.0	615.0	614.0	613.0	611.5	609.6	607.6	605.7	603.7	603.1
35°	586.9	585.9	584.9	583.9	582.9	581.4	579.4	577.5	575.5	573.6	572.5
37.5°	555.0	554.1	553.2	552.3	551.4	549.9	547.8	545.7	543.6	541.4	540.4
40°	534.2	533.0	531.9	530.8	529.7	528.1	525.9	523.8	521.7	519.6	518.2
42.5°	511.8	511.2	510.5	509.8	509.2	507.6	505.3	503.0	500.6	498.3	496.7
45°	479.0	478.0	477.0	476.1	475.1	473.4	471.2	468.9	466.7	464.4	462.8
47.5°	444.6	443.9	443.3	442.5	441.9	440.5	438.5	436.3	434.2	432.2	430.4
50°	421.3	420.7	420.1	419.6	419.0	417.8	415.8	413.8	411.8	409.9	407.9
52.5°	398.4	397.8	397.1	396.4	395.7	394.4	392.2	390.2	388.1	386.0	384.3
55°	362.2	361.8	361.4	361.0	360.6	359.4	357.4	355.4	353.4	351.5	349.8
57.5°	327.8	327.3	326.8	326.3	325.8	324.7	322.7	320.7	318.8	316.8	315.2
60°	303.9	303.2	302.5	301.7	301.1	299.8	298.0	296.1	294.3	292.4	291.2
62.5°	280.5	280.0	279.3	278.8	278.2	276.9	275.0	273.0	271.1	269.1	268.0
65°	245.5	244.8	244.1	243.4	242.7	241.7	240.3	238.8	237.4	236.0	234.6
67.5°	210.3	209.6	209.0	208.3	207.7	206.7	205.3	204.0	202.6	201.2	199.9
70°	188.4	187.4	186.5	185.5	184.5	183.4	182.3	181.2	180.0	178.9	177.8
72.5°	165.1	164.1	163.1	162.1	161.1	160.2	159.3	158.4	157.5	156.5	155.6
75°	130.7	130.0	129.3	128.6	127.8	127.2	126.5	125.7	125.1	124.3	123.8
77.5°	97.8	97.5	97.2	96.9	96.6	96.1	95.5	94.9	94.2	93.7	93.4
80°	78.0	77.6	77.2	76.8	76.3	76.0	75.7	75.4	75.2	74.8	74.6
82.5°	58.8	58.5	58.4	58.1	58.0	57.8	57.8	57.7	57.6	57.6	57.4
85°	34.2	34.2	34.2	34.2	34.2	34.1	33.8	33.6	33.3	33.0	33.0
87.5°	13.7	14.0	14.3	14.6	14.8	15.1	15.2	15.5	15.7	15.8	16.1
90°	2.4	4.5	6.5	8.6	10.5	12.3	13.8	15.2	16.7	18.2	19.2
92.5°	17.7	20.0	22.3	24.6	26.9	28.6	29.6	30.7	31.7	32.7	33.3
95°	49.6	51.2	52.8	54.5	56.2	57.6	58.9	60.2	61.5	62.8	63.3
97.5°	86.6	87.9	89.2	90.5	91.9	93.3	94.7	96.3	97.8	99.3	100.0
100°	115.6	116.3	117.1	117.8	118.5	119.8	121.4	123.0	124.7	126.4	126.7
102.5°	146.0	146.3	146.6	146.9	147.2	148.1	149.6	151.1	152.6	154.1	154.7
105°	192.4	192.7	192.8	193.0	193.1	193.6	194.4	195.1	195.8	196.6	197.1
107.5°	241.2	241.4	241.6	241.8	242.1	242.2	242.3	242.5	242.6	242.6	243.2
110°	274.2	274.6	274.9	275.3	275.7	275.7	275.6	275.4	275.2	275.0	274.7



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	308.6	308.7	308.8	308.8	308.8	308.8	308.4	308.1	307.8	307.4	307.4
115°	360.1	360.1	360.1	360.1	360.1	360.0	359.5	359.2	358.8	358.5	358.2
117.5°	408.7	408.8	409.0	409.1	409.3	409.2	409.0	408.7	408.5	408.1	407.6
120°	441.1	441.8	442.5	443.3	444.0	444.1	443.5	443.0	442.5	441.9	441.0
122.5°	474.7	475.1	475.3	475.6	475.9	476.0	475.6	475.4	475.2	474.9	474.3
125°	524.5	524.5	524.5	524.5	524.5	524.4	524.2	524.0	523.8	523.7	523.3
127.5°	569.6	570.1	570.6	571.2	571.8	571.9	571.6	571.3	571.0	570.7	570.4
130°	601.3	601.9	602.3	602.9	603.5	603.7	603.7	603.7	603.7	603.7	603.4
132.5°	633.7	634.1	634.5	634.9	635.3	635.4	635.3	635.1	635.0	634.8	634.5
135°	676.5	677.5	678.7	679.7	680.9	681.4	681.4	681.4	681.4	681.4	681.0
137.5°	723.0	723.5	724.1	724.6	725.0	725.5	725.8	726.1	726.4	726.7	726.2
140°	754.1	754.5	754.8	755.2	755.5	755.7	755.7	755.7	755.7	755.7	755.5
142.5°	782.5	782.9	783.3	783.6	784.0	784.1	783.9	783.7	783.7	783.5	783.4
145°	821.8	822.6	823.3	824.0	824.8	825.2	825.4	825.6	825.7	825.9	825.7
147.5°	860.8	861.7	862.6	863.4	864.3	864.7	864.5	864.4	864.2	864.1	864.0
150°	884.6	885.3	886.1	886.8	887.5	887.9	887.9	887.9	887.9	887.9	887.9
152.5°	907.0	907.5	907.9	908.3	908.8	909.1	909.2	909.4	909.5	909.7	910.1
155°	941.6	941.6	941.6	941.6	941.6	941.5	941.3	941.1	940.9	940.8	941.5
157.5°	970.6	970.3	970.0	969.6	969.3	969.1	969.1	969.1	969.0	969.0	969.6
160°	987.8	987.7	987.4	987.2	987.1	986.9	986.7	986.5	986.3	986.2	986.7
162.5°	1003.6	1003.2	1002.7	1002.2	1001.8	1001.4	1001.3	1001.1	1000.9	1000.7	1001.7
165°	1025.0	1024.4	1023.9	1023.4	1022.8	1022.3	1022.0	1021.6	1021.2	1020.8	1022.0
167.5°	1041.3	1040.6	1039.8	1039.0	1038.3	1037.9	1038.0	1038.0	1038.0	1038.0	1039.1
170°	1050.6	1049.7	1048.7	1047.8	1046.9	1046.5	1046.8	1046.9	1047.1	1047.3	1048.4
172.5°	1057.2	1056.4	1055.6	1054.9	1054.1	1053.8	1053.8	1053.9	1053.9	1053.9	1055.2
175°	1066.2	1065.4	1064.5	1063.6	1062.6	1062.1	1061.8	1061.7	1061.5	1061.4	1062.6
177.5°	1069.3	1068.5	1067.8	1067.1	1066.3	1065.9	1065.9	1065.9	1065.9	1065.9	1067.0
180°	1068.0	1068.0	1068.0	1068.0	1068.0	1068.0	1068.0	1068.0	1068.0	1068.0	1068.0



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	791.7	791.7	791.7	791.7	791.7	791.7	791.7	791.7
2.5°	789.0	790.1	791.2	791.7	791.6	791.5	791.4	791.2
5°	784.7	786.3	787.8	788.5	788.1	787.9	787.6	787.3
7.5°	776.0	777.2	778.4	779.0	778.9	778.7	778.5	778.3
10°	768.7	769.8	770.9	771.4	771.0	770.8	770.5	770.2
12.5°	759.8	761.0	762.2	762.6	762.2	761.8	761.5	761.1
15°	742.7	743.6	744.4	744.6	744.2	743.8	743.3	742.9
17.5°	723.3	723.8	724.4	724.5	724.2	723.9	723.7	723.4
20°	708.9	709.3	709.7	709.8	709.5	709.2	709.0	708.7
22.5°	693.8	694.6	695.4	695.5	695.0	694.5	694.0	693.4
25°	669.0	669.1	669.3	669.0	668.5	667.9	667.3	666.8
27.5°	641.2	640.7	640.4	639.9	639.2	638.5	637.8	637.1
30°	621.9	621.3	620.8	620.1	619.4	618.7	618.0	617.3
32.5°	602.3	601.7	601.0	600.3	599.7	598.9	598.2	597.5
35°	571.5	570.5	569.6	568.8	568.0	567.3	566.6	565.9
37.5°	539.3	538.2	537.1	536.1	535.2	534.3	533.4	532.4
40°	516.8	515.4	514.0	512.9	512.2	511.5	510.8	510.1
42.5°	495.0	493.3	491.7	490.6	490.2	489.8	489.3	488.8
45°	461.3	459.7	458.2	457.2	456.8	456.4	455.9	455.5
47.5°	428.7	426.9	425.2	423.8	422.7	421.6	420.5	419.5
50°	405.9	403.9	401.9	400.6	399.7	398.8	398.0	397.1
52.5°	382.5	380.7	379.0	377.6	376.5	375.4	374.4	373.3
55°	348.1	346.4	344.7	343.4	342.6	341.8	340.9	340.1
57.5°	313.6	312.0	310.4	309.2	308.3	307.5	306.7	305.9
60°	289.9	288.7	287.4	286.4	285.7	285.0	284.3	283.6
62.5°	266.8	265.6	264.5	263.6	262.9	262.2	261.5	260.7
65°	233.2	231.8	230.4	229.3	228.6	227.9	227.2	226.5
67.5°	198.5	197.2	195.8	195.0	194.9	194.7	194.4	194.3
70°	176.7	175.5	174.4	173.7	173.2	172.8	172.4	171.9
72.5°	154.7	153.8	153.0	152.3	151.9	151.5	151.1	150.6
75°	123.2	122.6	122.1	121.7	121.6	121.5	121.3	121.2
77.5°	93.3	93.1	92.9	92.7	92.3	92.0	91.6	91.2
80°	74.3	74.0	73.7	73.5	73.4	73.2	73.1	73.0
82.5°	57.2	57.1	56.9	56.7	56.7	56.5	56.3	56.2
85°	33.0	33.0	33.0	32.9	32.8	32.6	32.5	32.4
87.5°	16.2	16.5	16.7	16.9	16.9	17.0	17.0	17.1
90°	20.4	21.4	22.6	23.3	23.6	24.1	24.4	24.8
92.5°	34.0	34.7	35.4	35.8	36.0	36.2	36.4	36.7
95°	63.8	64.4	65.0	65.2	65.2	65.2	65.2	65.2
97.5°	100.6	101.3	101.9	102.2	102.2	102.2	102.2	102.2
100°	127.1	127.4	127.8	128.0	128.0	128.0	128.0	128.0
102.5°	155.2	155.6	156.2	156.5	156.6	156.8	156.9	157.1
105°	197.7	198.2	198.8	199.3	199.9	200.4	201.0	201.5
107.5°	243.7	244.2	244.8	244.9	244.9	244.9	244.8	244.8
110°	274.3	273.9	273.5	273.7	274.2	274.8	275.3	275.9



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CATALOG NUMBER: S124DIW-S575D1050U930-4F0-1E-UDD-F1

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	307.3	307.2	307.1	307.1	307.3	307.4	307.4	307.6
115°	358.1	357.9	357.8	357.5	357.3	357.2	357.0	356.8
117.5°	406.9	406.3	405.7	405.2	404.8	404.5	404.1	403.7
120°	440.0	439.1	438.2	437.9	438.3	438.6	439.0	439.4
122.5°	473.7	473.0	472.4	471.7	471.1	470.4	469.8	469.1
125°	522.9	522.5	522.2	521.8	521.5	521.1	520.7	520.3
127.5°	570.0	569.6	569.2	568.9	568.6	568.3	568.0	567.8
130°	603.0	602.7	602.3	601.8	601.0	600.3	599.6	598.8
132.5°	634.1	633.7	633.3	633.0	632.8	632.4	632.1	631.9
135°	680.7	680.3	680.0	679.5	678.9	678.3	677.8	677.3
137.5°	725.7	725.2	724.7	724.6	724.6	724.8	724.9	725.0
140°	755.4	755.2	755.0	754.8	754.6	754.5	754.2	754.1
142.5°	783.4	783.3	783.3	783.3	783.3	783.3	783.2	783.2
145°	825.6	825.4	825.2	824.8	824.3	823.7	823.2	822.6
147.5°	863.8	863.6	863.5	863.3	863.2	863.0	862.7	862.6
150°	887.9	887.9	887.9	887.8	887.6	887.5	887.2	887.0
152.5°	910.5	911.0	911.4	911.4	910.9	910.4	910.0	909.5
155°	942.2	943.0	943.7	943.7	943.0	942.2	941.5	940.8
157.5°	970.1	970.6	971.2	971.2	970.5	969.9	969.3	968.7
160°	987.2	987.8	988.4	988.1	987.2	986.3	985.5	984.5
162.5°	1002.7	1003.6	1004.7	1004.7	1003.8	1002.9	1001.9	1001.0
165°	1023.0	1024.2	1025.2	1025.4	1024.7	1023.9	1023.2	1022.5
167.5°	1040.2	1041.3	1042.4	1042.4	1041.3	1040.2	1039.0	1037.9
170°	1049.5	1050.6	1051.7	1051.6	1050.4	1049.0	1047.7	1046.4
172.5°	1056.4	1057.6	1058.9	1058.8	1057.6	1056.3	1055.0	1053.7
175°	1063.9	1065.2	1066.5	1066.5	1065.2	1063.9	1062.6	1061.4
177.5°	1068.0	1069.0	1070.1	1070.0	1068.8	1067.6	1066.5	1065.3
180°	1068.0	1068.0	1068.0	1068.0	1068.0	1068.0	1068.0	1068.0

(END OF REPORT)