

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: P332558-940

Luminaire Tested: **S124DIP-S575D810U940-4F0-1E-UDD-D4**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P332558-940
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-18,
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S124DIP-S575D810U940-4F0-1E-UDD-D4
Description: DEFINE 4 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 575 LUMENS PER FOOT, DROP SATIN WHITE DIFFUSER
UPLIGHT 810 LUMENS PER FOOT, BATWING OPTIC
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4695.4 lumens
Efficiency: N/A
Efficacy: 122.3 lumens/watt
Spacing Criteria (0/90/45): 1.23 / 1.28 / 1.39
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 4' x H: 0.08')
CIE Type: General Diffuse

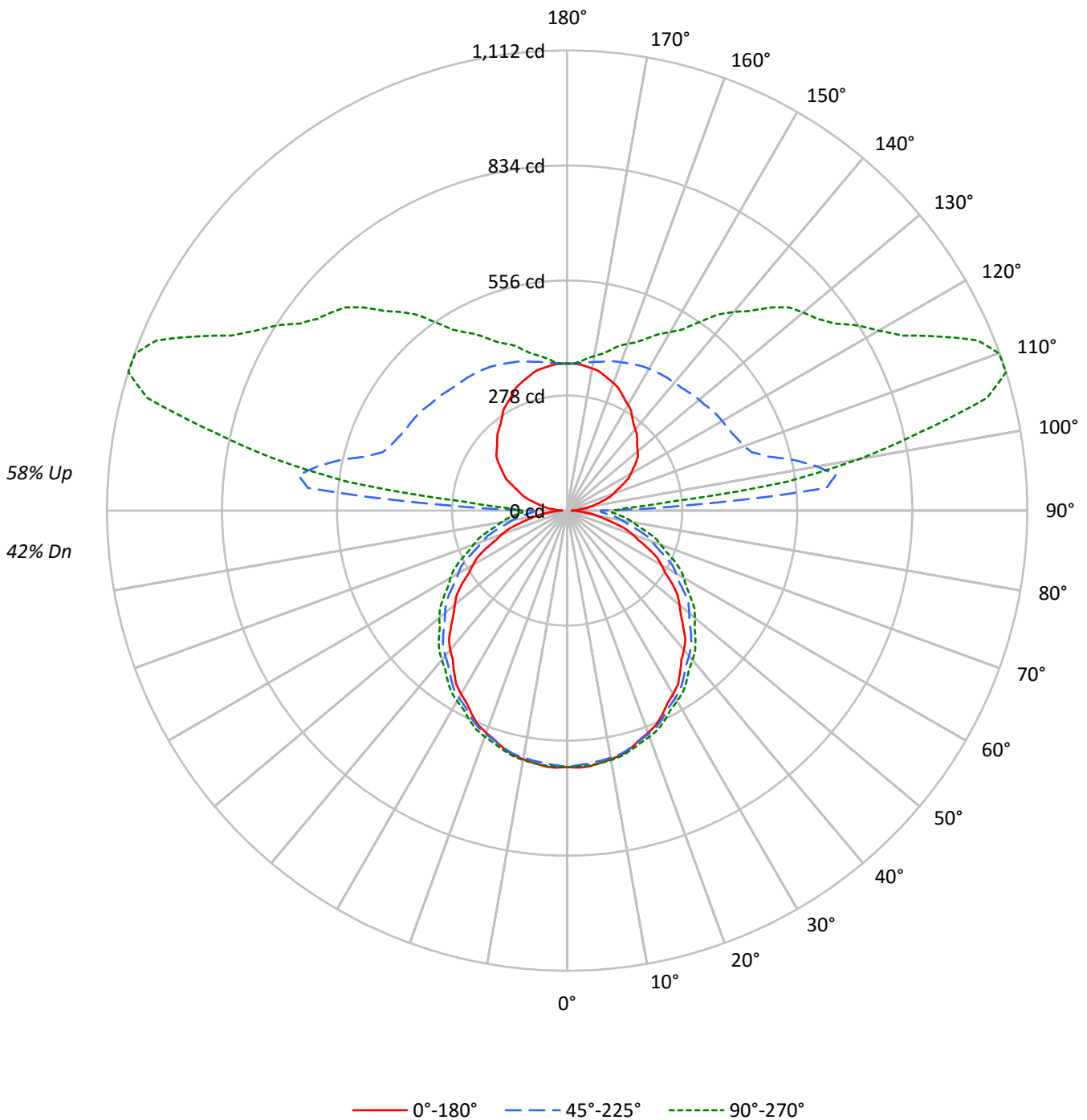
Input Watts (W): 38.4
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	50	30	10	0		
RCR																										
0	105	105	105	105	96	96	96	96	79	79	79	63	63	63	48	48	48	42					42			
1	95	90	86	83	86	82	79	76	68	65	63	54	52	51	41	40	39	33					33			
2	86	78	72	67	78	72	66	61	59	55	51	47	44	42	36	34	32	27					27			
3	78	69	61	55	71	63	56	51	52	47	43	41	38	35	32	29	27	23					23			
4	72	60	52	46	65	55	48	43	46	40	36	36	33	29	28	25	23	19					19			
5	66	54	45	39	59	49	42	36	41	35	31	33	29	25	25	22	20	16					16			
6	60	48	40	34	55	44	37	31	36	31	27	29	25	22	23	20	17	14					14			
7	56	43	35	30	50	40	33	27	33	27	23	27	22	19	21	18	15	13					13			
8	52	39	31	26	47	36	29	24	30	24	21	24	20	17	19	16	14	11					11			
9	48	36	28	23	44	33	26	21	27	22	18	22	18	15	17	14	12	10					10			
10	45	33	25	21	41	30	24	19	25	20	16	21	17	14	16	13	11	9					9			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	5002	5002	5002
5°	5018	4889	4903
10°	4987	4809	4805
15°	4943	4717	4690
20°	4875	4614	4579
25°	4799	4500	4456
30°	4717	4386	4330
35°	4624	4269	4220
40°	4550	4158	4105
45°	4439	4056	4005
50°	4344	3938	3901
55°	4249	3827	3778
60°	4098	3685	3667
65°	3933	3533	3529
70°	3733	3359	3369
75°	3453	3169	3224
80°	3143	2984	3082
85°	2746	2820	2999



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	58.7	1.2
10°-20°	168.1	3.6
20°-30°	254.2	5.4
30°-40°	307.6	6.6
40°-50°	325.2	6.9
50°-60°	306.0	6.5
60°-70°	253.9	5.4
70°-80°	178.3	3.8
80°-90°	102.8	2.2
90°-100°	316.2	6.7
100°-110°	577.8	12.3
110°-120°	507.6	10.8
120°-130°	418.7	8.9
130°-140°	342.4	7.3
140°-150°	257.5	5.5
150°-160°	180.0	3.8
160°-170°	105.9	2.3
170°-180°	34.4	0.7
0°-30°	481.0	10.2
0°-40°	788.6	16.8
0°-60°	1419.8	30.2
0°-90°	1954.8	41.6
90°-120°	1401.6	29.9
90°-150°	2420.3	51.5
90°-180°	2741.0	58.4
0°-180°	4695.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	620	620	620	620	620	
5°	620	618	613	619	618	59
15°	595	595	593	599	599	167
25°	544	548	550	558	559	250
35°	476	484	491	501	503	298
45°	397	410	423	435	438	307
55°	311	326	346	360	364	277
65°	215	237	261	278	284	213
75°	119	145	174	193	200	127
85°	37	66	97	117	125	39
90°	12	45	81	102	109	9
95°	32	105	629	360	256	33
105°	88	139	503	1047	1050	94
115°	148	192	440	831	995	147
125°	203	241	425	699	788	181
135°	239	285	409	609	694	185
145°	275	314	400	503	556	172
155°	312	336	389	441	460	144
165°	340	350	373	395	401	96
175°	354	355	358	363	361	34
180°	355	355	355	355	355	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	619.6	619.6	619.6	619.6	619.6	619.6	619.6	619.6	619.6	619.6	619.6
2.5°	621.9	621.5	621.2	620.7	620.4	619.7	618.8	617.8	616.7	615.7	616.6
5°	620.4	619.9	619.4	618.9	618.5	617.7	616.6	615.5	614.5	613.4	614.7
7.5°	615.1	614.7	614.5	614.2	613.9	613.4	612.5	611.6	610.6	609.8	611.2
10°	610.6	610.5	610.3	610.2	610.0	609.6	608.8	608.0	607.3	606.5	607.9
12.5°	604.5	604.5	604.5	604.4	604.4	604.1	603.6	603.1	602.5	602.0	603.2
15°	594.7	594.9	594.9	595.1	595.3	595.1	594.7	594.2	593.7	593.3	594.7
17.5°	581.2	581.7	582.1	582.6	583.1	583.3	583.2	583.1	583.0	582.9	584.2
20°	571.8	572.2	572.7	573.2	573.6	573.9	574.1	574.3	574.4	574.5	576.0
22.5°	561.2	561.8	562.4	562.9	563.6	564.0	564.3	564.5	564.8	565.1	566.7
25°	544.0	544.9	545.9	546.8	547.7	548.4	548.8	549.3	549.8	550.3	552.0
27.5°	524.9	526.2	527.5	529.0	530.3	531.3	532.0	532.7	533.4	534.1	535.7
30°	512.1	513.4	514.5	515.8	517.0	518.2	519.2	520.3	521.4	522.5	524.2
32.5°	498.2	499.7	501.1	502.7	504.2	505.5	506.7	507.9	509.1	510.3	512.2
35°	476.0	477.9	479.7	481.5	483.4	485.1	486.6	488.2	489.7	491.2	493.5
37.5°	453.7	455.8	457.9	460.0	462.2	464.2	466.1	468.1	469.9	471.8	474.0
40°	439.3	441.2	443.3	445.2	447.3	449.3	451.5	453.6	455.8	458.0	460.3
42.5°	422.6	424.8	427.0	429.4	431.6	434.0	436.5	439.0	441.6	444.1	446.7
45°	396.9	399.8	402.8	405.7	408.6	411.5	414.5	417.4	420.4	423.3	425.9
47.5°	372.4	375.3	378.4	381.4	384.4	387.6	391.0	394.4	397.8	401.2	403.9
50°	354.5	357.9	361.3	364.8	368.2	371.6	375.0	378.4	381.7	385.1	388.2
52.5°	336.8	340.2	343.6	347.0	350.4	354.0	357.9	361.8	365.7	369.5	372.6
55°	310.9	314.1	317.4	320.6	323.8	327.7	332.3	337.0	341.6	346.3	349.4
57.5°	281.9	285.9	289.9	293.9	297.9	302.2	306.7	311.4	316.0	320.6	324.2
60°	263.0	267.0	271.0	275.0	279.0	283.6	288.6	293.7	298.8	303.9	307.5
62.5°	244.7	249.1	253.4	257.8	262.2	266.9	272.0	277.1	282.2	287.3	290.8
65°	215.1	220.1	225.0	229.9	234.9	240.0	245.1	250.4	255.7	260.9	264.7
67.5°	186.6	191.9	197.2	202.4	207.6	213.0	218.6	224.3	229.9	235.5	239.4
70°	167.2	172.5	177.7	183.0	188.2	193.8	199.6	205.5	211.3	217.2	221.3
72.5°	148.4	153.7	159.1	164.4	169.8	175.6	181.8	188.1	194.3	200.5	204.6
75°	119.3	125.0	130.7	136.4	142.1	148.3	154.7	161.2	167.7	174.2	178.5
77.5°	92.3	98.4	104.4	110.4	116.5	122.9	129.7	136.4	143.2	150.0	154.4
80°	75.6	81.8	88.0	94.2	100.3	106.7	113.6	120.4	127.2	133.9	138.6
82.5°	58.9	65.4	71.8	78.2	84.6	91.2	98.0	104.8	111.6	118.4	123.1
85°	36.7	43.2	49.8	56.2	62.7	69.4	76.3	83.3	90.2	97.1	101.7
87.5°	20.7	27.3	34.0	40.4	46.8	53.3	60.9	67.7	74.7	81.8	86.1
90°	11.8	19.4	27.6	34.5	41.4	47.8	58.6	65.2	73.2	81.2	85.0
92.5°	18.5	27.6	39.8	53.9	69.6	90.2	132.2	193.0	252.3	286.5	254.0
95°	32.0	39.2	51.3	65.5	87.2	122.3	189.2	309.9	482.9	628.7	648.8
97.5°	49.5	53.9	64.2	77.0	95.7	125.6	178.5	279.2	451.1	654.6	794.2
100°	60.6	64.6	73.6	85.9	103.2	130.5	177.6	262.4	410.7	613.3	795.9
102.5°	71.8	76.4	84.3	95.6	111.8	137.7	180.8	256.0	382.9	563.1	751.3
105°	87.8	93.0	99.6	111.0	126.6	151.2	190.5	254.0	357.3	503.2	670.9
107.5°	106.9	110.8	116.9	128.3	142.9	166.7	202.9	260.9	349.7	468.0	605.5
110°	119.2	122.8	128.4	138.9	153.6	176.2	212.3	266.5	348.6	455.1	572.3



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	130.9	134.2	140.2	149.9	164.3	186.7	221.4	272.6	349.5	447.3	552.1
115°	147.8	151.2	157.6	165.9	180.6	202.5	235.3	282.1	351.9	440.5	531.7
117.5°	166.0	168.9	174.0	182.5	195.7	218.0	249.1	292.1	354.9	435.6	520.1
120°	177.8	179.7	184.9	193.1	205.5	227.4	258.4	299.1	357.3	432.8	513.4
122.5°	189.0	190.4	195.4	202.6	215.7	236.7	267.5	305.8	359.8	429.5	506.1
125°	202.9	205.5	209.6	217.0	230.2	251.6	280.5	316.4	364.2	425.3	495.1
127.5°	215.7	217.8	222.7	231.3	245.0	266.0	293.2	325.7	366.9	419.5	480.9
130°	222.4	225.1	230.5	240.8	253.9	275.3	301.4	331.1	369.1	416.2	472.0
132.5°	229.7	231.8	238.8	248.6	262.8	282.9	308.5	337.1	371.3	413.4	464.0
135°	239.2	241.9	248.9	260.7	275.4	294.1	318.2	344.4	374.0	408.6	451.5
137.5°	249.3	251.8	259.3	270.5	285.5	303.0	325.0	348.9	374.9	405.2	440.8
140°	256.5	258.5	266.0	277.8	292.2	309.0	330.0	352.5	376.4	403.0	435.0
142.5°	263.9	265.9	273.0	284.3	298.3	314.4	334.7	355.3	377.7	401.9	430.3
145°	274.7	276.6	283.5	293.1	306.2	321.5	339.6	358.4	378.6	400.2	423.5
147.5°	287.1	287.7	293.6	303.5	314.4	328.1	345.2	361.6	379.3	397.7	417.5
150°	294.9	295.5	300.9	309.2	319.4	332.6	347.9	363.3	379.3	396.0	413.5
152.5°	301.7	301.8	307.3	315.0	324.4	336.5	350.2	364.4	378.2	393.2	409.0
155°	311.7	312.4	316.6	323.5	331.2	341.6	353.5	365.3	376.5	389.1	402.3
157.5°	321.6	321.6	325.5	330.9	337.6	345.8	355.9	365.3	374.7	384.8	395.5
160°	327.7	327.7	330.5	335.4	341.0	348.7	357.0	365.3	373.0	381.4	390.5
162.5°	333.3	332.7	334.9	339.3	344.3	350.3	358.1	365.3	371.4	378.1	386.0
165°	339.6	339.6	341.0	344.5	347.9	352.1	358.4	364.0	368.2	373.0	378.6
167.5°	345.8	345.2	345.8	348.5	350.4	353.7	358.3	362.3	364.8	368.0	371.9
170°	348.7	347.9	348.7	350.7	352.1	354.2	357.7	361.1	362.6	364.6	367.5
172.5°	351.4	350.7	350.9	352.4	353.2	354.7	357.1	360.1	360.3	361.3	363.6
175°	354.2	353.5	353.5	354.2	354.9	354.9	356.3	358.4	357.7	357.7	359.1
177.5°	355.4	354.9	354.4	354.9	354.9	354.9	355.4	356.6	355.4	355.4	356.0
180°	354.9	354.9	354.9	354.9	354.9	354.9	354.9	354.9	354.9	354.9	354.9



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	619.6	619.6	619.6	619.6	619.6	619.6	619.6	619.6
2.5°	617.5	618.3	619.2	619.6	619.5	619.3	619.2	619.1
5°	615.9	617.1	618.3	618.8	618.8	618.6	618.4	618.2
7.5°	612.6	613.9	615.4	616.0	615.8	615.6	615.5	615.4
10°	609.2	610.6	612.0	612.6	612.5	612.3	612.2	612.0
12.5°	604.6	605.8	607.1	607.7	607.7	607.6	607.6	607.6
15°	596.0	597.4	598.8	599.4	599.3	599.1	599.0	598.8
17.5°	585.7	587.1	588.5	589.2	589.1	589.0	588.8	588.7
20°	577.7	579.2	580.7	581.5	581.5	581.5	581.5	581.5
22.5°	568.2	569.7	571.2	572.2	572.4	572.7	572.9	573.2
25°	553.7	555.4	557.1	557.9	558.1	558.3	558.4	558.6
27.5°	537.3	538.9	540.5	541.4	541.5	541.7	541.9	542.1
30°	525.9	527.6	529.3	530.3	530.6	530.9	531.2	531.5
32.5°	514.2	516.1	518.1	519.2	519.5	519.8	520.1	520.4
35°	495.6	497.8	499.9	501.2	501.7	502.1	502.6	503.1
37.5°	476.3	478.4	480.6	482.0	482.4	483.0	483.4	483.9
40°	462.6	464.9	467.3	468.7	469.3	469.9	470.6	471.2
42.5°	449.2	451.7	454.3	455.8	456.4	456.8	457.4	457.8
45°	428.6	431.1	433.7	435.4	436.2	437.0	437.7	438.5
47.5°	406.6	409.4	412.1	413.8	414.8	415.7	416.7	417.6
50°	391.3	394.4	397.4	399.5	400.4	401.3	402.3	403.1
52.5°	375.8	378.8	381.9	383.9	384.9	385.8	386.6	387.6
55°	352.4	355.5	358.6	360.6	361.5	362.5	363.4	364.3
57.5°	327.9	331.6	335.3	337.5	338.4	339.2	340.1	341.0
60°	311.0	314.6	318.1	320.5	321.7	323.0	324.2	325.5
62.5°	294.4	297.9	301.5	303.8	305.1	306.3	307.6	308.8
65°	268.6	272.5	276.3	278.8	280.1	281.3	282.6	283.8
67.5°	243.3	247.3	251.2	253.7	254.9	256.1	257.3	258.5
70°	225.5	229.7	233.8	236.5	237.6	238.6	239.7	240.8
72.5°	208.6	212.7	216.7	219.3	220.5	221.7	222.9	224.1
75°	182.8	187.1	191.5	194.3	195.6	197.1	198.5	199.8
77.5°	158.8	163.2	167.6	170.5	171.9	173.4	174.9	176.4
80°	143.2	147.8	152.4	155.3	156.6	157.8	159.1	160.3
82.5°	127.9	132.6	137.4	140.4	141.8	143.1	144.5	145.9
85°	106.4	111.0	115.7	118.8	120.3	121.8	123.3	124.9
87.5°	90.7	95.3	100.0	102.8	104.3	105.8	107.0	108.4
90°	90.2	95.3	100.5	103.3	105.3	107.3	107.8	109.0
92.5°	211.0	181.5	164.8	153.6	146.6	144.1	142.9	144.2
95°	585.3	481.4	392.2	327.3	294.5	274.3	263.1	255.5
97.5°	827.5	791.4	727.2	657.1	608.4	567.8	548.1	534.9
100°	902.0	920.1	890.0	841.1	781.5	740.0	720.2	715.7
102.5°	895.0	968.2	982.1	963.3	927.3	897.7	876.8	873.6
105°	834.5	958.9	1031.8	1062.9	1065.5	1061.2	1052.7	1049.7
107.5°	750.6	882.9	983.8	1048.5	1084.1	1101.1	1109.2	1112.1
110°	700.0	824.1	928.8	1007.9	1058.6	1089.1	1103.0	1110.4



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CATALOG NUMBER: S124DIP-S575D810U940-4F0-1E-UDD-D4

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	661.8	771.9	870.8	949.9	1007.3	1043.9	1062.7	1074.2
115°	622.3	711.5	796.4	865.6	921.8	964.7	988.1	994.7
117.5°	600.5	674.7	742.0	801.0	849.2	885.6	909.5	915.0
120°	589.6	657.5	716.4	768.1	809.0	841.0	860.3	869.2
122.5°	580.1	645.9	699.7	745.2	779.9	807.3	823.7	832.4
125°	565.0	627.9	678.9	719.2	748.0	769.1	783.3	788.5
127.5°	546.5	606.6	657.4	695.7	724.8	743.8	756.0	761.3
130°	532.6	590.5	640.7	679.5	709.0	727.4	739.4	744.5
132.5°	518.4	572.8	621.8	660.5	689.5	710.1	721.6	726.7
135°	497.8	545.6	590.7	627.2	656.0	676.5	688.6	693.7
137.5°	479.6	520.2	558.3	591.3	618.1	638.2	648.2	654.0
140°	469.0	503.8	537.3	567.9	593.1	609.2	619.7	626.1
142.5°	459.7	490.3	519.0	545.5	567.8	582.6	591.9	596.6
145°	446.7	471.4	493.2	513.4	531.5	543.9	551.6	555.7
147.5°	436.0	455.0	471.8	487.5	500.8	511.5	517.3	519.0
150°	430.2	446.2	460.2	472.7	483.9	492.9	497.1	497.8
152.5°	424.1	437.8	450.7	461.0	470.5	477.9	480.4	481.1
155°	414.8	426.1	436.5	444.9	451.8	457.4	459.5	459.5
157.5°	404.9	414.3	423.1	429.8	435.1	439.3	440.5	440.5
160°	398.9	406.5	414.2	419.7	423.9	428.1	428.8	428.8
162.5°	392.7	399.2	405.3	410.3	413.3	417.5	418.2	417.7
165°	384.1	388.3	393.2	396.7	399.5	402.3	401.6	400.9
167.5°	375.9	379.2	383.1	385.1	386.6	388.3	388.3	387.6
170°	371.0	373.0	375.9	377.9	379.3	380.0	379.3	379.3
172.5°	366.5	368.0	369.7	371.2	372.0	372.7	372.0	371.0
175°	360.5	361.1	362.6	362.6	362.6	364.0	362.6	361.1
177.5°	356.6	357.1	357.1	357.7	357.1	357.7	356.6	355.4
180°	354.9	354.9	354.9	354.9	354.9	354.9	354.9	354.9

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