

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: P332557-940

Luminaire Tested: **S124DIP-S575D810U940-4F0-1E-UDD-D1**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P332557-940
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: S124DIP-S575D810U940-4F0-1E-UDD-D1
Description: DEFINE 4 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 575 LUMENS PER FOOT, DROP SATIN WHITE DIFFUSER
UPLIGHT 810 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4615.8 lumens
Efficiency: N/A
Efficacy: 120.2 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

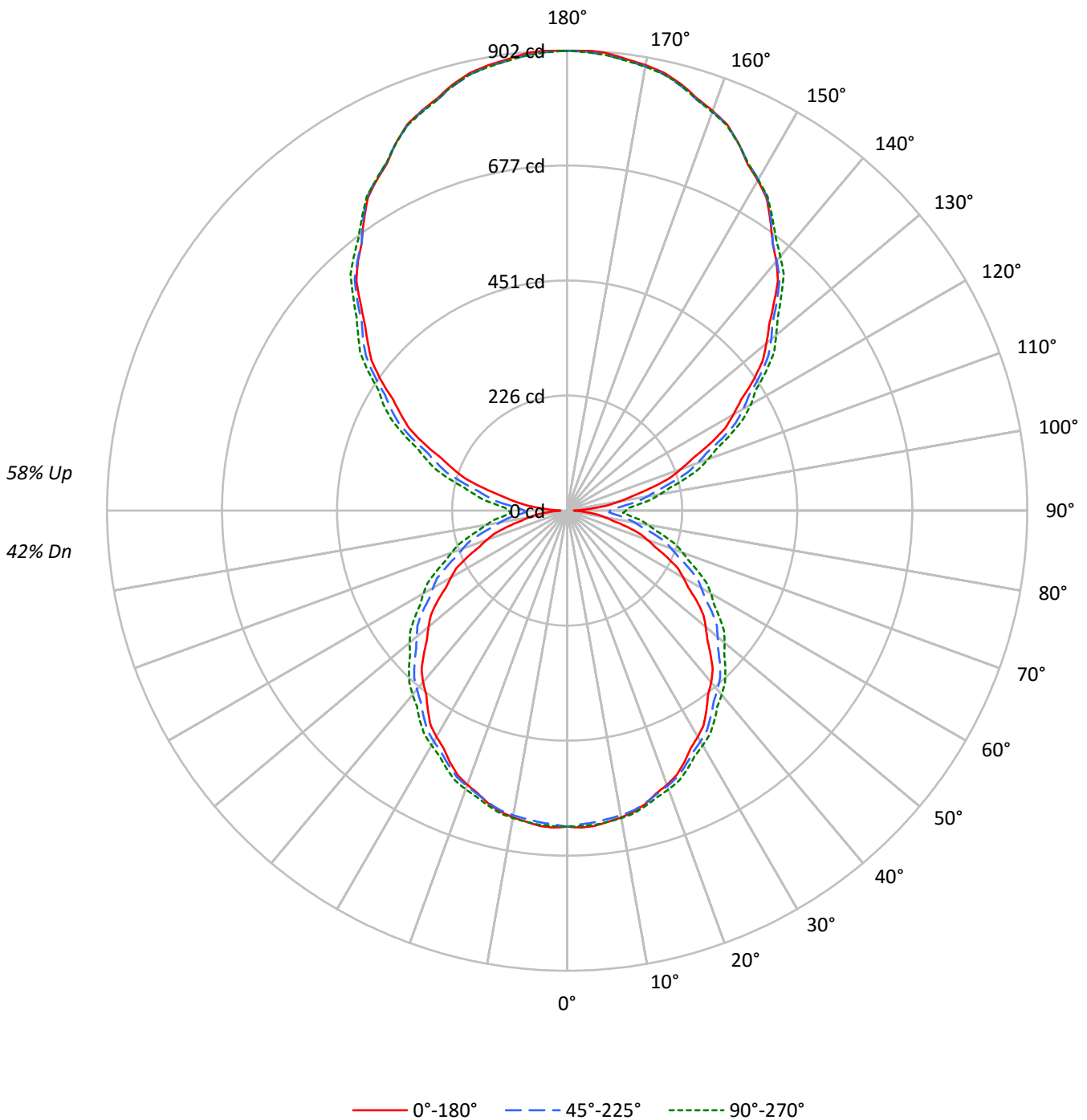
Input Watts (W): 38.4
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P332557-940

CATALOG NUMBER: S124DIP-S575D810U940-4F0-1E-UDD-D1

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	79	79	79	63	63	63	49	49	49	42				
1	95	91	86	83	87	83	79	76	68	65	63	54	53	51	42	41	40	34				
2	86	79	72	67	78	72	66	62	59	55	51	47	44	42	36	34	33	28				
3	78	69	61	55	71	63	56	51	52	47	43	41	38	35	32	30	27	23				
4	72	61	52	46	65	55	48	43	46	40	36	37	33	30	28	26	23	19				
5	66	54	45	39	60	49	42	37	41	35	31	33	29	26	25	23	20	17				
6	60	48	40	34	55	44	37	32	37	31	27	30	25	22	23	20	18	15				
7	56	43	35	30	51	40	33	28	33	28	23	27	23	20	21	18	16	13				
8	52	39	31	26	47	36	29	24	30	25	21	24	20	17	19	16	14	11				
9	48	36	28	23	44	33	26	22	27	22	18	22	18	15	18	15	12	10				
10	45	33	25	21	41	30	24	19	25	20	17	21	17	14	16	13	11	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



TEST NUMBER: P332557-940

CATALOG NUMBER: S124DIP-S575D810U940-4F0-1E-UDD-D1

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	58.7	1.3
10°-20°	168.1	3.6
20°-30°	254.2	5.5
30°-40°	307.6	6.7
40°-50°	325.2	7.0
50°-60°	306.0	6.6
60°-70°	253.9	5.5
70°-80°	178.3	3.9
80°-90°	103.5	2.2
90°-100°	119.3	2.6
100°-110°	220.4	4.8
110°-120°	328.7	7.1
120°-130°	410.9	8.9
130°-140°	449.9	9.7
140°-150°	436.5	9.5
150°-160°	365.9	7.9
160°-170°	243.4	5.3
170°-180°	85.2	1.8
0°-30°	481.0	10.4
0°-40°	788.6	17.1
0°-60°	1419.8	30.8
0°-90°	1955.5	42.4
90°-120°	668.4	14.5
90°-150°	1965.7	42.6
90°-180°	2660.0	57.6
0°-180°	4615.8	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°	13	49	84	107	115	10
95°	51	80	113	133	140	54
105°	169	184	212	230	239	179
115°	308	315	335	349	354	304
125°	445	446	461	473	476	397
135°	572	576	581	591	593	443
145°	694	696	697	700	701	434
155°	795	795	794	796	794	366
165°	865	863	862	865	863	244
175°	900	897	896	900	896	85
180°	901	901	901	901	901	



TEST NUMBER: P332557-940

CATALOG NUMBER: S124DIP-S575D810U940-4F0-1E-UDD-D1

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°	21.0	27.6	34.2	40.8	47.5	54.3	61.3	68.3	75.3	82.3	86.9
90°	13.2	21.0	29.0	36.8	44.7	52.5	60.5	68.3	76.2	84.0	89.4
92.5°	25.5	33.0	40.5	48.0	55.5	63.0	70.4	77.9	85.5	93.0	97.9
95°	50.8	57.3	63.8	70.3	76.8	83.7	91.1	98.5	105.9	113.3	118.0
97.5°	81.2	86.8	92.2	97.7	103.3	109.8	117.3	124.8	132.3	139.8	144.5
100°	105.2	109.9	114.5	119.1	123.8	129.7	137.1	144.5	151.9	159.4	163.9
102.5°	130.9	134.6	138.4	142.1	146.0	151.4	158.5	165.7	172.9	180.0	184.5
105°	168.7	171.9	175.1	178.4	181.6	186.5	192.7	199.0	205.4	211.7	216.1
107.5°	209.6	212.4	215.1	217.8	220.5	224.6	230.2	235.6	241.1	246.6	250.8
110°	237.0	239.4	241.9	244.4	246.9	250.7	256.0	261.2	266.4	271.7	274.9



TEST NUMBER: P332557-940

CATALOG NUMBER: S124DIP-S575D810U940-4F0-1E-UDD-D1

CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	265.5	267.4	269.4	271.3	273.3	276.8	281.6	286.5	291.4	296.2	299.6
115°	308.1	309.5	310.9	312.3	313.7	316.6	321.3	325.9	330.6	335.2	338.4
117.5°	348.9	349.9	350.9	351.9	352.8	355.4	359.8	364.2	368.6	373.0	375.7
120°	375.8	376.8	377.9	379.0	380.0	382.6	386.6	390.7	394.7	398.6	400.9
122.5°	404.2	404.5	404.8	405.2	405.6	407.7	411.7	415.7	419.7	423.7	426.3
125°	445.4	445.3	445.1	445.0	444.9	446.6	450.3	454.0	457.7	461.4	464.0
127.5°	483.4	483.7	484.0	484.3	484.6	486.2	488.8	491.5	494.3	497.0	499.4
130°	509.6	509.9	510.2	510.5	510.9	512.2	514.7	517.2	519.6	522.1	524.6
132.5°	536.9	537.1	537.3	537.4	537.7	538.7	540.6	542.3	544.2	546.1	548.4
135°	572.3	573.3	574.2	575.2	576.0	577.0	578.1	579.3	580.3	581.4	583.5
137.5°	611.6	611.9	612.2	612.5	612.8	613.3	614.0	614.8	615.6	616.4	618.2
140°	637.8	638.0	638.2	638.4	638.5	638.6	638.8	638.9	639.1	639.3	641.1
142.5°	661.3	661.6	661.8	662.1	662.4	662.5	662.2	662.0	661.8	661.6	663.3
145°	694.4	694.8	695.3	695.7	696.2	696.5	696.7	696.8	697.0	697.1	697.9
147.5°	727.3	727.8	728.4	729.0	729.6	729.9	729.7	729.6	729.4	729.3	729.3
150°	747.3	747.8	748.2	748.7	749.2	749.4	749.4	749.4	749.4	749.4	749.4
152.5°	765.7	766.1	766.4	766.8	767.0	767.3	767.4	767.6	767.7	767.9	768.2
155°	794.7	794.7	794.7	794.7	794.7	794.6	794.5	794.3	794.2	794.1	794.6
157.5°	819.3	818.9	818.7	818.4	818.1	818.0	818.0	818.0	817.9	817.9	818.3
160°	833.7	833.6	833.5	833.3	833.1	832.9	832.9	832.7	832.5	832.4	832.9
162.5°	847.1	846.8	846.3	846.0	845.5	845.3	845.1	845.0	844.8	844.6	845.5
165°	865.1	864.7	864.2	863.7	863.3	862.9	862.6	862.3	861.9	861.7	862.6
167.5°	879.0	878.2	877.6	877.0	876.4	876.0	876.0	876.1	876.1	876.1	877.1
170°	886.7	886.0	885.2	884.4	883.7	883.3	883.5	883.7	883.8	884.0	884.8
172.5°	892.3	891.7	891.0	890.4	889.7	889.4	889.5	889.5	889.5	889.6	890.6
175°	900.0	899.2	898.4	897.7	896.9	896.4	896.3	896.1	896.0	895.8	896.9
177.5°	902.5	901.9	901.3	900.6	900.0	899.7	899.7	899.7	899.7	899.7	900.5
180°	901.3	901.3	901.3	901.3	901.3	901.3	901.3	901.3	901.3	901.3	901.3



TEST NUMBER: P332557-940

CATALOG NUMBER: S124DIP-S575D810U940-4F0-1E-UDD-D1

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°	91.7	96.3	100.9	104.0	105.4	106.8	108.3	109.7
90°	94.9	100.2	105.7	109.1	110.7	112.2	113.8	115.3
92.5°	102.8	107.7	112.6	115.7	117.2	118.6	120.0	121.5
95°	122.6	127.2	131.9	134.8	136.3	137.7	139.0	140.4
97.5°	149.1	153.6	158.3	161.2	162.6	163.9	165.2	166.5
100°	168.4	172.8	177.3	180.0	181.1	182.3	183.3	184.4
102.5°	189.0	193.5	198.0	200.8	202.2	203.5	204.8	206.2
105°	220.3	224.7	229.0	232.0	233.7	235.4	237.1	238.8
107.5°	255.0	259.3	263.5	266.2	267.2	268.3	269.4	270.5
110°	278.1	281.4	284.6	287.1	288.8	290.5	292.2	293.9



TEST NUMBER: P332557-940

CATALOG NUMBER: S124DIP-S575D810U940-4F0-1E-UDD-D1

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	303.0	306.3	309.7	312.0	313.3	314.7	316.0	317.4
115°	341.6	344.9	348.1	350.2	351.2	352.0	352.9	353.9
117.5°	378.4	381.0	383.7	385.5	386.4	387.4	388.3	389.2
120°	403.2	405.6	407.9	409.8	411.3	412.9	414.5	416.0
122.5°	428.8	431.4	434.0	435.5	436.0	436.7	437.2	437.7
125°	466.6	469.3	471.9	473.5	474.1	474.7	475.4	476.0
127.5°	501.9	504.4	506.8	508.5	509.3	510.1	510.9	511.7
130°	527.0	529.5	532.0	533.3	533.6	534.0	534.2	534.6
132.5°	550.8	553.1	555.4	557.0	557.7	558.3	559.0	559.6
135°	585.7	587.8	590.0	591.3	591.7	592.3	592.7	593.2
137.5°	620.1	622.0	623.8	625.2	626.0	626.9	627.8	628.6
140°	642.9	644.8	646.7	647.9	648.5	649.2	649.7	650.3
142.5°	665.0	666.7	668.5	669.7	670.3	670.9	671.5	672.1
145°	698.7	699.5	700.2	700.7	700.8	701.0	701.2	701.2
147.5°	729.3	729.3	729.3	729.5	729.9	730.2	730.5	730.8
150°	749.4	749.4	749.4	749.3	749.2	749.0	748.9	748.7
152.5°	768.6	768.9	769.3	769.3	768.9	768.5	768.1	767.7
155°	795.2	795.9	796.5	796.5	795.9	795.2	794.6	794.1
157.5°	818.8	819.3	819.7	819.7	819.2	818.7	818.1	817.6
160°	833.3	833.7	834.2	834.1	833.3	832.5	831.8	831.0
162.5°	846.3	847.1	848.0	848.0	847.2	846.5	845.7	844.9
165°	863.5	864.4	865.4	865.5	864.9	864.2	863.6	863.1
167.5°	878.0	879.0	879.9	879.9	878.9	877.9	877.0	876.0
170°	885.8	886.7	887.7	887.6	886.5	885.5	884.3	883.2
172.5°	891.6	892.7	893.8	893.8	892.7	891.5	890.5	889.4
175°	898.0	899.0	900.2	900.2	899.0	898.0	896.9	895.8
177.5°	901.4	902.3	903.2	903.1	902.1	901.2	900.2	899.1
180°	901.3	901.3	901.3	901.3	901.3	901.3	901.3	901.3

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