

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: P333131-840

Luminaire Tested: **S125DIP-S375D590U840-4F0-1E-UDD-F1**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P333131-840
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: S125DIP-S375D590U840-4F0-1E-UDD-F1
Description: DEFINE 5 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 375 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER
UPLIGHT 590 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3602.4 lumens
Efficiency: N/A
Efficacy: 140.7 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.18 / 1.31
Luminous Opening: Rectangular (W 0.42' x L: 4' x H: 0')
CIE Type: General Diffuse

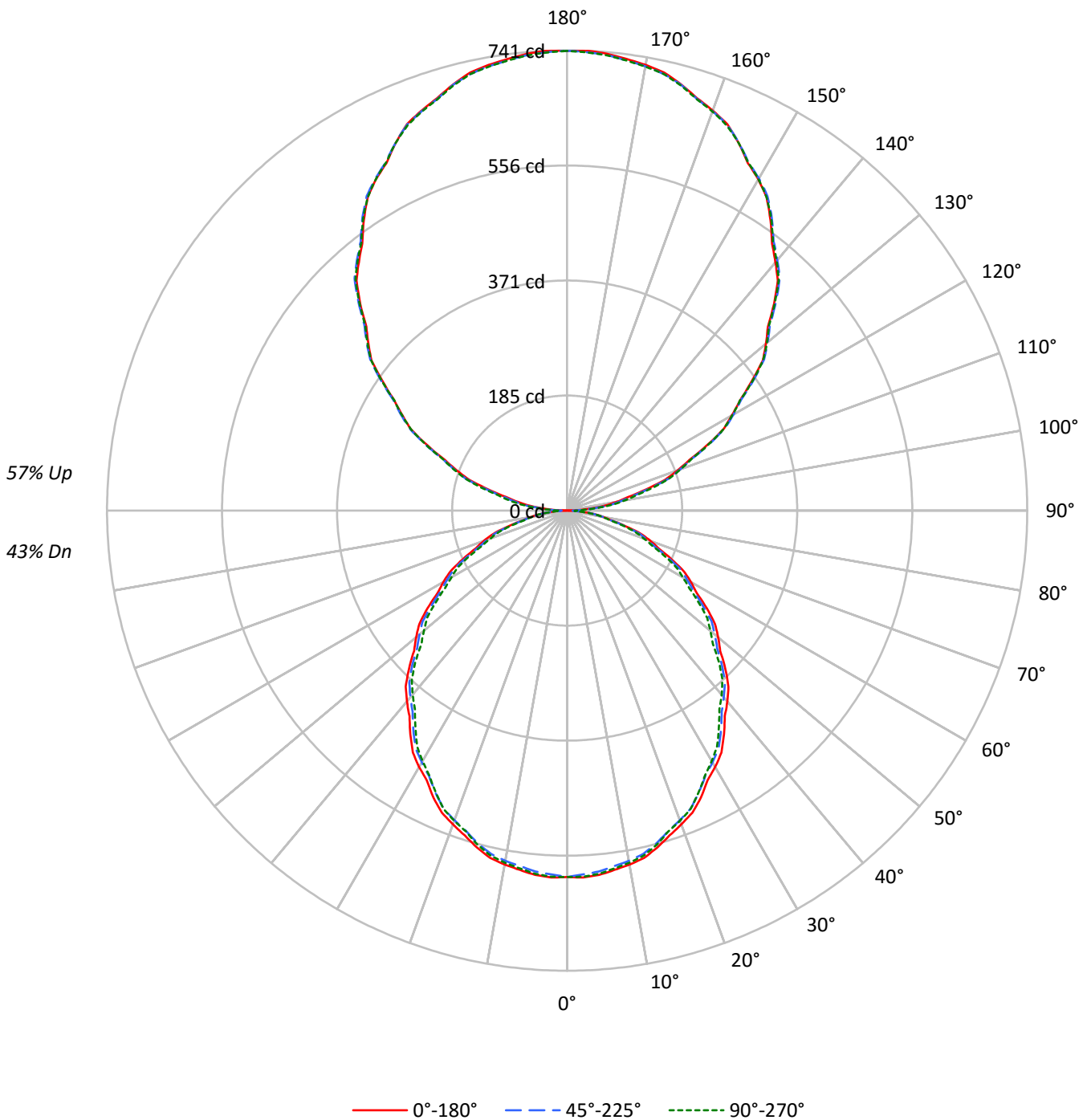
Input Watts (W): 25.6
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P333131-840

CATALOG NUMBER: S125DIP-S375D590U840-4F0-1E-UDD-F1

Luminous Intensity Polar Plot





TEST NUMBER: P333131-840

CATALOG NUMBER: S125DIP-S375D590U840-4F0-1E-UDD-F1

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	105	105	105	105	96	96	96	96	79	79	79		64	64	64		49	49	49	43
1	96	92	88	84	88	84	81	78	69	67	65		56	54	53		44	43	42	36
2	87	80	74	69	80	73	68	64	61	57	54		49	46	44		38	37	35	30
3	80	70	63	57	73	65	58	53	54	49	45		43	40	37		34	32	30	25
4	73	62	54	48	66	57	50	45	47	42	38		39	35	32		30	28	26	22
5	67	55	47	41	61	51	44	39	42	37	33		35	31	28		27	24	22	19
6	62	50	42	36	56	46	39	33	38	33	29		31	27	24		25	22	20	17
7	57	45	37	31	52	41	34	29	35	29	25		28	24	21		23	20	17	15
8	53	41	33	28	48	37	31	26	32	26	22		26	22	19		21	18	16	13
9	49	37	30	25	45	34	28	23	29	24	20		24	20	17		19	16	14	12
10	46	34	27	22	42	31	25	21	27	21	18		22	18	15		18	15	13	11

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3810	3810	3810
5°	3818	3782	3806
10°	3796	3756	3777
15°	3754	3710	3726
20°	3696	3647	3654
25°	3632	3572	3569
30°	3554	3491	3473
35°	3470	3404	3356
40°	3384	3309	3262
45°	3291	3222	3159
50°	3189	3118	3024
55°	3090	3001	2916
60°	2971	2882	2780
65°	2832	2740	2647
70°	2696	2574	2485
75°	2458	2376	2293
80°	2187	2153	2101
85°	1904	1941	1830



TEST NUMBER: P333131-840

CATALOG NUMBER: S125DIP-S375D590U840-4F0-1E-UDD-F1

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	55.6	1.5
10°-20°	157.1	4.4
20°-30°	232.0	6.4
30°-40°	270.7	7.5
40°-50°	271.9	7.5
50°-60°	238.7	6.6
60°-70°	177.8	4.9
70°-80°	101.7	2.8
80°-90°	31.2	0.9
90°-100°	49.6	1.4
100°-110°	146.4	4.1
110°-120°	248.0	6.9
120°-130°	326.4	9.1
130°-140°	365.7	10.2
140°-150°	358.4	9.9
150°-160°	301.1	8.4
160°-170°	200.1	5.6
170°-180°	70.0	1.9
0°-30°	444.7	12.3
0°-40°	715.5	19.9
0°-60°	1226.0	34.0
0°-90°	1536.7	42.7
90°-120°	444.0	12.3
90°-150°	1494.5	41.5
90°-180°	2066.0	57.4
0°-180°	3602.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	590	590	590	590	590	
5°	589	588	583	587	587	56
15°	562	560	555	557	557	158
25°	510	507	501	502	501	234
35°	440	438	432	429	426	275
45°	360	358	353	348	346	278
55°	274	273	266	262	259	245
65°	185	184	179	175	173	184
75°	98	98	95	94	92	105
85°	26	26	26	26	25	29
90°	1	5	9	12	14	3
95°	38	39	44	48	50	40
105°	131	134	138	141	143	140
115°	248	250	252	251	251	245
125°	362	366	366	365	365	324
135°	471	474	475	475	473	363
145°	571	573	575	575	573	357
155°	653	653	654	656	653	301
165°	710	709	710	712	709	200
175°	738	736	736	739	736	70
180°	740	740	740	740	740	



TEST NUMBER: P333131-840

CATALOG NUMBER: S125DIP-S375D590U840-4F0-1E-UDD-F1

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	590.0	590.0	590.0	590.0	590.0	590.0	590.0	590.0	590.0	590.0	590.0
2.5°	591.4	591.2	591.0	590.7	590.5	589.9	589.1	588.2	587.4	586.5	587.4
5°	589.0	588.8	588.5	588.3	588.1	587.5	586.5	585.5	584.4	583.4	584.3
7.5°	583.6	583.4	583.2	583.0	582.8	582.1	581.0	579.8	578.7	577.5	578.5
10°	578.8	578.6	578.3	578.1	577.9	577.2	576.1	574.9	573.8	572.7	573.5
12.5°	572.8	572.4	572.0	571.7	571.3	570.6	569.5	568.5	567.3	566.3	566.9
15°	561.5	561.2	560.9	560.6	560.2	559.5	558.4	557.2	556.0	554.9	555.4
17.5°	548.5	548.1	547.5	547.1	546.6	545.8	544.6	543.5	542.3	541.1	541.8
20°	537.7	537.5	537.2	537.0	536.8	536.0	534.7	533.3	532.0	530.7	531.4
22.5°	526.8	526.4	526.0	525.7	525.3	524.5	523.2	522.0	520.7	519.5	520.0
25°	509.7	509.2	508.6	508.1	507.6	506.6	505.3	503.9	502.6	501.3	501.5
27.5°	489.6	489.3	489.0	488.7	488.4	487.5	486.1	484.7	483.3	481.9	482.0
30°	476.6	476.3	475.8	475.5	475.2	474.3	472.8	471.2	469.7	468.1	467.9
32.5°	462.3	461.8	461.4	460.9	460.4	459.5	458.1	456.7	455.3	453.9	453.5
35°	440.1	439.7	439.3	438.9	438.5	437.5	436.1	434.6	433.1	431.7	431.2
37.5°	417.1	416.6	416.1	415.5	415.0	414.0	412.6	411.3	409.9	408.6	407.8
40°	401.4	400.8	400.3	399.8	399.3	398.3	396.9	395.5	393.9	392.5	391.6
42.5°	384.6	384.2	383.7	383.2	382.8	381.9	380.4	379.0	377.5	376.1	375.3
45°	360.3	359.9	359.5	359.1	358.6	357.8	356.6	355.4	354.1	352.8	351.6
47.5°	334.2	334.2	334.2	334.3	334.3	333.6	332.0	330.5	329.0	327.5	326.3
50°	317.4	317.1	316.8	316.4	316.1	315.4	314.1	312.9	311.6	310.3	309.0
52.5°	300.2	299.9	299.7	299.5	299.3	298.5	297.2	295.9	294.5	293.2	292.1
55°	274.4	274.1	273.8	273.5	273.2	272.3	270.8	269.4	267.9	266.5	265.6
57.5°	247.3	247.1	246.9	246.8	246.6	245.9	244.7	243.5	242.3	241.1	239.8
60°	230.0	229.6	229.2	228.8	228.4	227.6	226.5	225.4	224.2	223.1	222.1
62.5°	212.2	211.9	211.5	211.2	210.9	210.2	209.2	208.2	207.2	206.3	205.2
65°	185.3	185.1	184.9	184.7	184.5	183.8	182.7	181.5	180.4	179.3	178.2
67.5°	159.3	158.9	158.3	157.9	157.5	156.8	156.0	155.1	154.3	153.5	152.7
70°	142.8	142.3	141.8	141.3	140.8	140.0	139.1	138.1	137.2	136.3	135.6
72.5°	124.9	124.5	124.2	123.8	123.5	123.0	122.4	121.8	121.2	120.6	119.9
75°	98.5	98.3	98.1	97.9	97.7	97.3	96.7	96.2	95.7	95.2	94.9
77.5°	74.1	74.0	73.9	73.8	73.8	73.6	73.3	73.0	72.7	72.4	72.2
80°	58.8	58.8	58.8	58.8	58.8	58.7	58.5	58.3	58.1	57.9	57.8
82.5°	45.3	45.2	45.0	44.8	44.7	44.6	44.5	44.5	44.4	44.4	44.2
85°	25.7	25.8	25.9	26.0	26.1	26.2	26.2	26.2	26.2	26.2	26.1
87.5°	10.2	10.4	10.6	10.8	11.0	11.2	11.3	11.3	11.4	11.5	11.7
90°	0.6	1.6	2.6	3.6	4.6	5.7	6.6	7.5	8.3	9.2	9.9
92.5°	13.9	14.6	15.3	16.1	16.8	17.7	18.8	19.9	21.0	22.1	22.9
95°	37.5	37.7	38.0	38.2	38.5	39.3	40.5	41.8	43.1	44.3	45.2
97.5°	62.2	62.3	62.4	62.5	62.6	63.5	65.3	67.1	68.9	70.6	71.5
100°	80.7	80.7	80.7	80.7	80.7	81.5	83.1	84.8	86.4	88.2	89.3
102.5°	100.5	101.0	101.5	102.0	102.5	103.2	104.0	104.9	105.7	106.5	107.9
105°	131.4	132.0	132.6	133.3	133.9	134.6	135.4	136.1	136.9	137.6	138.5
107.5°	165.4	166.1	166.7	167.3	168.0	168.6	169.3	169.8	170.4	171.0	171.4
110°	188.9	189.6	190.3	190.9	191.6	192.1	192.4	192.8	193.2	193.6	194.0



TEST NUMBER: P333131-840

CATALOG NUMBER: S125DIP-S375D590U840-4F0-1E-UDD-F1

CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	212.9	213.3	213.6	213.9	214.3	214.7	215.2	215.6	216.1	216.6	216.8
115°	248.3	248.8	249.3	249.8	250.3	250.7	251.0	251.3	251.5	251.8	251.7
117.5°	283.8	284.0	284.3	284.5	284.7	285.0	285.2	285.4	285.6	285.9	286.0
120°	305.9	306.6	307.2	307.8	308.5	308.8	309.0	309.1	309.2	309.3	309.3
122.5°	329.9	330.1	330.3	330.5	330.8	331.0	331.4	331.7	332.0	332.4	332.3
125°	362.3	363.1	363.9	364.7	365.5	365.9	366.0	366.2	366.3	366.4	366.2
127.5°	397.0	397.4	397.8	398.2	398.7	399.0	399.1	399.3	399.4	399.6	399.5
130°	417.7	418.3	419.0	419.6	420.2	420.7	420.9	421.2	421.4	421.7	421.6
132.5°	438.4	439.5	440.5	441.5	442.6	443.1	443.0	443.0	442.9	442.9	442.8
135°	471.2	472.0	472.8	473.5	474.3	474.7	474.9	475.0	475.1	475.2	475.2
137.5°	502.1	502.9	503.6	504.3	505.1	505.6	505.9	506.1	506.4	506.8	506.9
140°	521.9	522.6	523.2	523.8	524.5	525.0	525.4	525.8	526.1	526.5	526.8
142.5°	541.8	542.3	542.8	543.4	543.9	544.4	544.9	545.4	545.9	546.3	546.5
145°	570.9	571.4	572.0	572.5	573.0	573.4	573.8	574.2	574.6	574.9	574.9
147.5°	597.8	598.1	598.4	598.7	599.1	599.3	599.6	600.0	600.3	600.6	600.9
150°	615.8	615.7	615.6	615.5	615.3	615.5	616.0	616.5	617.0	617.5	617.5
152.5°	630.6	630.8	631.0	631.2	631.3	631.5	631.7	631.9	632.1	632.4	632.7
155°	653.3	653.3	653.3	653.3	653.3	653.4	653.5	653.6	653.8	653.9	654.4
157.5°	673.6	673.3	673.0	672.8	672.5	672.4	672.5	672.7	672.8	672.9	673.4
160°	685.6	685.2	684.8	684.4	684.0	683.9	684.0	684.2	684.3	684.4	684.9
162.5°	696.2	695.9	695.6	695.3	695.0	694.9	694.9	695.0	695.0	695.0	695.6
165°	710.3	710.0	709.8	709.5	709.3	709.2	709.3	709.5	709.6	709.7	710.2
167.5°	722.4	721.9	721.2	720.7	720.2	720.0	720.0	720.0	720.0	720.0	720.7
170°	728.7	728.2	727.7	727.2	726.7	726.5	726.5	726.5	726.5	726.5	727.2
172.5°	733.4	732.9	732.4	731.8	731.3	731.0	731.0	731.0	731.0	731.0	731.8
175°	738.5	738.0	737.5	737.0	736.5	736.3	736.3	736.3	736.3	736.3	737.0
177.5°	741.2	740.8	740.4	740.0	739.5	739.3	739.2	739.1	739.0	738.9	739.5
180°	740.3	740.3	740.3	740.3	740.3	740.3	740.3	740.3	740.3	740.3	740.3



TEST NUMBER: P333131-840

CATALOG NUMBER: S125DIP-S375D590U840-4F0-1E-UDD-F1

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	590.0	590.0	590.0	590.0	590.0	590.0	590.0	590.0
2.5°	588.2	589.1	589.9	590.3	590.2	590.1	590.1	590.0
5°	585.2	586.2	587.1	587.5	587.4	587.3	587.2	587.1
7.5°	579.4	580.3	581.2	581.6	581.5	581.4	581.3	581.2
10°	574.3	575.1	576.0	576.3	576.2	576.1	576.0	575.9
12.5°	567.6	568.4	569.0	569.3	569.3	569.3	569.3	569.2
15°	555.9	556.4	557.0	557.2	557.2	557.2	557.2	557.2
17.5°	542.4	543.0	543.7	543.7	543.2	542.7	542.2	541.7
20°	532.1	532.8	533.5	533.7	533.1	532.6	532.1	531.6
22.5°	520.4	520.9	521.4	521.4	521.1	520.7	520.4	520.0
25°	501.7	501.9	502.1	502.0	501.7	501.4	501.1	500.8
27.5°	482.0	482.0	482.1	482.0	481.6	481.3	481.0	480.7
30°	467.7	467.5	467.3	467.1	466.8	466.5	466.1	465.7
32.5°	453.2	452.8	452.4	452.0	451.4	450.8	450.3	449.7
35°	430.7	430.2	429.6	429.0	428.2	427.3	426.5	425.7
37.5°	407.1	406.3	405.5	404.9	404.3	403.9	403.4	402.9
40°	390.6	389.7	388.8	388.2	387.9	387.5	387.2	386.9
42.5°	374.4	373.5	372.6	372.0	371.5	371.0	370.6	370.1
45°	350.3	349.1	347.9	347.1	346.8	346.5	346.2	345.9
47.5°	325.0	323.8	322.4	321.4	320.7	320.0	319.3	318.6
50°	307.7	306.3	305.0	304.0	303.2	302.5	301.7	301.0
52.5°	290.8	289.6	288.4	287.5	286.7	285.9	285.1	284.3
55°	264.6	263.7	262.8	262.0	261.3	260.4	259.7	259.0
57.5°	238.6	237.4	236.2	235.4	235.0	234.6	234.2	233.8
60°	221.1	219.9	218.9	218.0	217.3	216.6	215.9	215.2
62.5°	204.1	202.9	201.8	201.0	200.5	199.9	199.2	198.7
65°	177.3	176.4	175.5	174.8	174.4	174.0	173.6	173.2
67.5°	151.9	151.1	150.3	149.8	149.6	149.3	149.1	148.8
70°	135.0	134.4	133.8	133.3	132.9	132.5	132.0	131.6
72.5°	119.2	118.5	117.8	117.2	116.8	116.4	115.9	115.5
75°	94.6	94.3	93.9	93.6	93.2	92.8	92.4	91.9
77.5°	72.1	71.9	71.7	71.5	71.2	70.9	70.6	70.3
80°	57.7	57.6	57.5	57.3	57.1	56.9	56.7	56.5
82.5°	44.0	43.8	43.7	43.5	43.5	43.5	43.4	43.4
85°	26.0	25.9	25.8	25.5	25.3	25.1	24.9	24.7
87.5°	11.8	11.9	12.0	12.1	12.0	11.9	11.8	11.7
90°	10.5	11.1	11.8	12.3	12.7	13.0	13.4	13.8
92.5°	23.8	24.6	25.5	26.1	26.4	26.7	26.9	27.2
95°	46.2	47.1	48.0	48.5	48.8	49.1	49.3	49.6
97.5°	72.3	73.2	74.0	74.5	74.6	74.8	74.9	75.1
100°	90.5	91.6	92.7	93.4	93.7	94.0	94.2	94.5
102.5°	109.1	110.4	111.6	112.4	112.8	113.1	113.5	113.8
105°	139.3	140.0	140.8	141.4	141.7	142.1	142.5	142.9
107.5°	171.8	172.2	172.5	172.7	172.7	172.7	172.6	172.6
110°	194.3	194.7	195.1	195.2	195.1	195.0	194.8	194.7



TEST NUMBER: P333131-840

CATALOG NUMBER: S125DIP-S375D590U840-4F0-1E-UDD-F1

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	217.0	217.1	217.3	217.3	217.1	216.8	216.6	216.4
115°	251.5	251.4	251.3	251.2	251.0	250.9	250.7	250.6
117.5°	286.1	286.2	286.3	286.1	285.6	285.1	284.6	284.0
120°	309.3	309.3	309.3	309.1	308.6	308.1	307.6	307.1
122.5°	332.2	332.1	332.0	331.7	331.3	330.9	330.5	330.1
125°	365.9	365.7	365.4	365.2	365.1	365.0	364.8	364.7
127.5°	399.3	399.2	399.1	398.9	398.6	398.4	398.1	397.9
130°	421.4	421.3	421.2	421.0	420.7	420.5	420.2	420.0
132.5°	442.6	442.5	442.4	442.1	441.8	441.4	441.1	440.7
135°	475.2	475.2	475.2	475.0	474.5	474.0	473.5	473.0
137.5°	507.1	507.2	507.4	507.2	506.4	505.8	505.2	504.5
140°	527.0	527.4	527.6	527.4	526.7	526.1	525.4	524.8
142.5°	546.6	546.8	546.9	546.7	546.1	545.4	544.8	544.2
145°	574.9	574.9	574.9	574.7	574.4	574.0	573.6	573.2
147.5°	601.2	601.5	601.8	601.5	600.6	599.8	598.8	598.0
150°	617.5	617.5	617.5	617.4	617.2	616.9	616.7	616.4
152.5°	633.0	633.3	633.6	633.5	633.0	632.6	632.1	631.7
155°	654.9	655.4	655.9	655.9	655.2	654.6	653.9	653.3
157.5°	673.9	674.4	674.9	674.8	673.9	673.1	672.3	671.4
160°	685.4	685.9	686.4	686.4	685.8	685.1	684.5	683.9
162.5°	696.2	696.8	697.5	697.4	696.7	695.9	695.2	694.4
165°	710.7	711.2	711.9	711.7	710.9	710.1	709.3	708.6
167.5°	721.5	722.4	723.1	723.1	722.3	721.4	720.6	719.9
170°	728.0	728.7	729.5	729.4	728.6	727.7	726.8	725.9
172.5°	732.7	733.4	734.2	734.2	733.4	732.6	731.7	730.9
175°	737.8	738.5	739.3	739.2	738.4	737.5	736.6	735.7
177.5°	740.1	740.7	741.3	741.3	740.6	739.9	739.1	738.4
180°	740.3	740.3	740.3	740.3	740.3	740.3	740.3	740.3

(END OF REPORT)