

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: P333343-840

Luminaire Tested: **S125DIW-S375D470U840-4F0-1E-UDD-D1**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P333343-840  
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: S125DIW-S375D470U840-4F0-1E-UDD-D1  
Description: DEFINE 5 DIRECT-INDIRECT WALL MOUNT LED LUMINAIRE  
DOWNLIGHT 375 LUMENS PER FOOT, DROP SATIN WHITE DIFFUSER  
UPLIGHT 470 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3117.0 lumens  
Efficiency: N/A  
Efficacy: 135.5 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

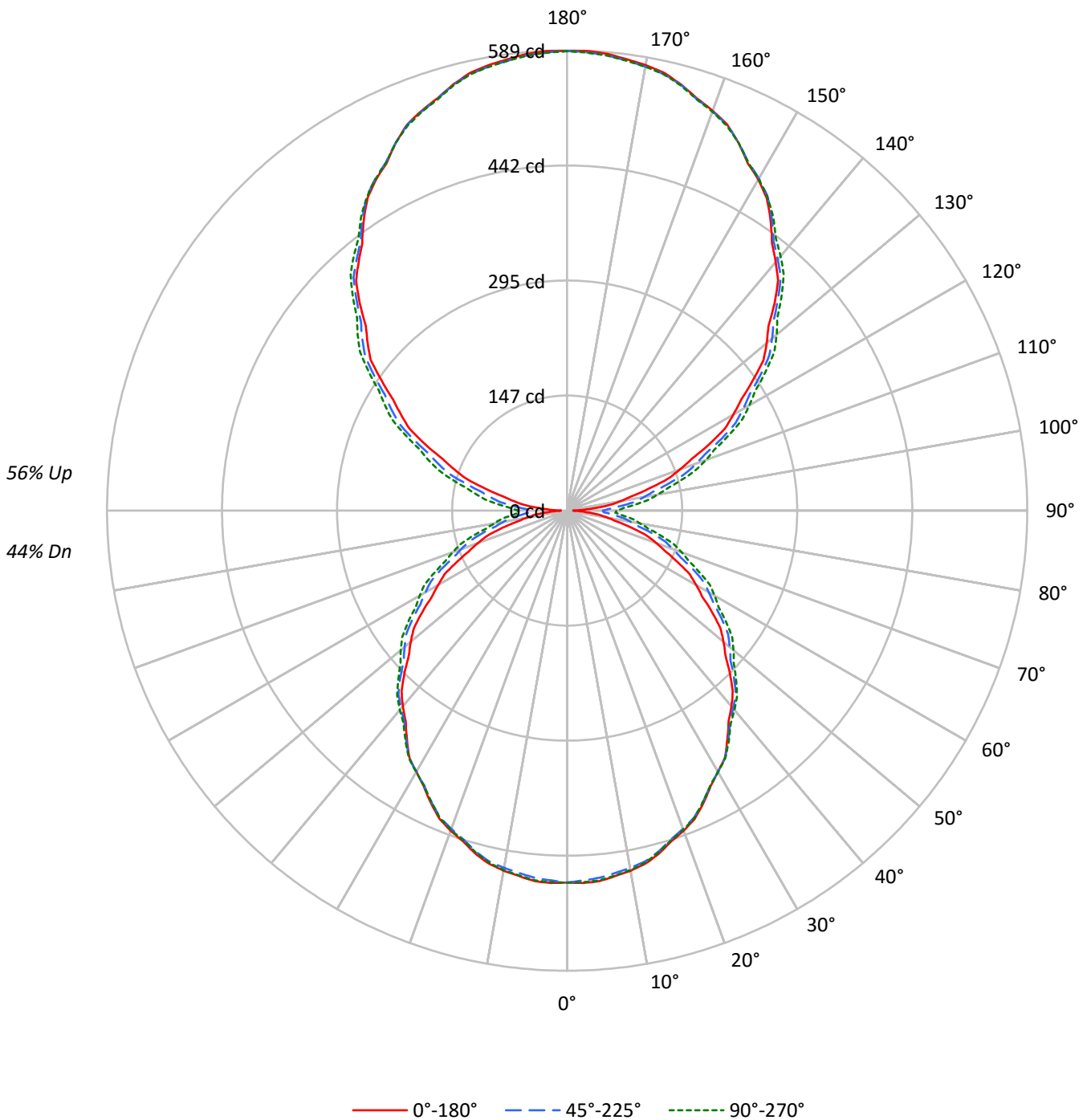
Input Watts (W): 23  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



TEST NUMBER: P333343-840

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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
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10
RCR																	
0	106	106	106	106	97	97	97	97	80	80	80	65	65	65	51	51	51
1	96	91	87	83	88	84	80	77	69	67	64	56	54	53	44	43	42
2	87	79	73	68	79	73	67	63	60	56	53	49	46	44	38	36	35
3	79	69	62	56	72	64	57	52	53	48	44	43	39	37	34	31	29
4	72	61	53	47	66	56	49	44	47	42	37	38	34	31	30	27	25
5	66	55	46	40	60	50	43	37	42	36	32	34	30	27	27	24	22
6	61	49	41	35	56	45	38	32	38	32	28	31	27	23	24	21	19
7	56	44	36	30	51	41	33	28	34	28	24	28	24	21	22	19	17
8	52	40	32	27	48	37	30	25	31	26	22	26	21	18	20	17	15
9	49	36	29	24	44	34	27	22	28	23	19	23	19	16	19	16	14
10	45	33	26	21	41	31	24	20	26	21	17	22	18	15	17	14	12

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	3075	3075	3075
5°	3081	3017	3027
10°	3059	2963	2960
15°	3022	2899	2873
20°	2974	2819	2786
25°	2915	2734	2680
30°	2844	2641	2584
35°	2778	2554	2494
40°	2711	2463	2406
45°	2635	2385	2327
50°	2563	2302	2256
55°	2474	2222	2175
60°	2380	2130	2090
65°	2281	2035	1997
70°	2168	1905	1900
75°	1987	1780	1780
80°	1753	1629	1650
85°	1538	1527	1610



TEST NUMBER: P333343-840

CATALOG NUMBER: S125DIW-S375D470U840-4F0-1E-UDD-D1

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	45.0	1.4
10°-20°	127.8	4.1
20°-30°	190.0	6.1
30°-40°	225.1	7.2
40°-50°	232.7	7.5
50°-60°	214.4	6.9
60°-70°	173.3	5.6
70°-80°	116.1	3.7
80°-90°	61.5	2.0
90°-100°	73.2	2.3
100°-110°	141.2	4.5
110°-120°	213.7	6.9
120°-130°	268.8	8.6
130°-140°	294.7	9.5
140°-150°	285.6	9.2
150°-160°	239.2	7.7
160°-170°	159.0	5.1
170°-180°	55.6	1.8
0°-30°	362.8	11.6
0°-40°	587.9	18.9
0°-60°	1035.1	33.2
0°-90°	1385.9	44.5
90°-120°	428.1	13.7
90°-150°	1277.2	41.0
90°-180°	1731.0	55.5
0°-180°	3117.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	476	476	476	476	476	
5°	476	475	472	475	475	45
15°	454	455	452	454	453	128
25°	413	414	412	413	411	190
35°	358	360	359	361	361	224
45°	294	299	302	305	306	227
55°	226	234	241	246	248	202
65°	156	167	178	184	187	155
75°	86	98	113	122	125	91
85°	26	41	57	67	71	27
90°	8	27	46	58	63	7
95°	36	49	69	82	87	37
105°	109	119	135	147	152	116
115°	200	206	218	226	228	198
125°	290	292	302	308	310	259
135°	375	378	381	387	388	289
145°	454	455	457	459	460	284
155°	519	519	520	521	519	239
165°	564	564	564	565	563	159
175°	587	585	585	587	584	56
180°	588	588	588	588	588	



TEST NUMBER: P333343-840

CATALOG NUMBER: S125DIW-S375D470U840-4F0-1E-UDD-D1

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	476.1	476.1	476.1	476.1	476.1	476.1	476.1	476.1	476.1	476.1	476.1
2.5°	477.2	477.0	476.9	476.7	476.6	476.2	475.5	474.9	474.4	473.8	474.4
5°	476.1	475.8	475.6	475.4	475.2	474.7	474.0	473.3	472.6	471.8	472.7
7.5°	471.8	471.8	471.7	471.6	471.5	471.1	470.4	469.6	468.9	468.1	468.9
10°	468.1	468.1	468.1	468.1	468.1	467.7	466.9	466.1	465.2	464.3	465.1
12.5°	462.9	463.0	463.0	463.1	463.2	462.9	462.3	461.6	460.9	460.3	460.8
15°	454.5	454.6	454.7	454.9	455.0	454.6	453.9	453.2	452.5	451.8	452.4
17.5°	443.7	443.9	444.1	444.3	444.5	444.3	443.6	442.8	442.1	441.4	441.9
20°	436.0	436.2	436.4	436.6	436.8	436.5	435.8	435.0	434.3	433.5	433.9
22.5°	427.0	427.4	427.7	428.1	428.5	428.2	427.4	426.6	425.8	425.0	425.4
25°	413.0	413.3	413.6	413.9	414.2	414.1	413.5	412.9	412.2	411.6	412.0
27.5°	397.6	398.0	398.5	398.9	399.4	399.3	398.6	397.9	397.2	396.5	396.7
30°	386.0	386.6	387.2	387.9	388.5	388.5	387.9	387.2	386.6	386.0	386.2
32.5°	375.6	376.1	376.6	377.2	377.7	377.7	377.3	376.8	376.4	375.9	376.1
35°	357.5	358.2	359.0	359.7	360.4	360.6	360.3	360.0	359.7	359.4	359.7
37.5°	339.5	340.1	340.8	341.4	342.1	342.4	342.3	342.2	342.1	342.0	342.4
40°	327.2	328.0	328.8	329.6	330.5	330.8	330.7	330.6	330.5	330.4	330.8
42.5°	313.8	314.8	315.9	317.0	318.0	318.7	318.9	319.1	319.4	319.6	320.1
45°	294.5	295.7	296.8	297.9	299.0	299.9	300.4	300.9	301.4	301.9	302.7
47.5°	274.8	275.9	276.9	278.0	279.0	280.0	280.9	281.8	282.7	283.6	284.7
50°	261.4	262.5	263.7	264.8	265.9	267.1	268.2	269.3	270.4	271.7	272.8
52.5°	247.2	248.5	249.9	251.4	252.8	254.1	255.5	256.9	258.3	259.6	260.9
55°	226.3	228.0	229.6	231.4	233.0	234.7	236.3	237.9	239.6	241.3	242.5
57.5°	205.1	207.0	209.0	211.1	213.1	215.0	216.9	218.8	220.8	222.6	223.9
60°	190.9	193.0	195.0	197.1	199.1	201.3	203.3	205.4	207.5	209.5	211.1
62.5°	177.0	179.2	181.3	183.3	185.4	187.5	189.8	192.0	194.3	196.5	198.2
65°	155.9	158.2	160.7	163.0	165.4	167.8	170.4	172.9	175.3	177.8	179.4
67.5°	135.9	138.3	140.5	142.8	145.1	147.5	150.1	152.6	155.1	157.6	159.6
70°	121.4	123.7	126.1	128.5	130.9	133.4	136.1	138.9	141.5	144.2	146.2
72.5°	107.1	109.7	112.1	114.5	117.0	119.8	122.7	125.6	128.6	131.5	133.7
75°	85.8	88.6	91.3	93.9	96.6	99.7	103.0	106.3	109.7	112.9	115.0
77.5°	65.4	68.6	71.7	74.7	77.9	81.0	84.2	87.5	90.6	93.8	96.1
80°	52.7	55.8	59.0	62.1	65.1	68.5	72.0	75.5	79.1	82.6	84.9
82.5°	41.2	44.4	47.8	51.0	54.2	57.8	61.3	64.9	68.6	72.1	74.3
85°	25.7	29.1	32.5	36.0	39.4	42.9	46.6	50.2	53.8	57.4	59.7
87.5°	14.6	18.2	21.6	25.1	28.6	32.1	35.9	39.5	43.1	46.9	49.3
90°	7.9	12.0	16.2	20.3	24.4	28.7	32.9	37.2	41.4	45.5	48.5
92.5°	17.8	21.4	25.0	28.7	32.3	36.5	40.9	45.3	49.9	54.3	57.4
95°	35.9	38.7	41.6	44.5	47.5	51.1	55.6	60.2	64.7	69.3	72.3
97.5°	54.9	57.5	60.0	62.5	64.9	68.7	73.4	78.3	83.0	87.9	90.7
100°	69.2	71.4	73.6	75.7	78.0	81.3	85.9	90.6	95.2	99.9	103.0
102.5°	84.6	87.1	89.4	91.8	94.2	97.5	101.3	105.2	109.2	113.0	116.1
105°	108.6	110.7	112.9	115.0	117.2	120.2	123.9	127.6	131.4	135.0	137.7
107.5°	135.1	137.0	139.0	140.9	142.8	145.4	149.0	152.4	155.8	159.3	161.7
110°	153.4	155.1	156.9	158.6	160.4	162.9	166.1	169.4	172.5	175.7	178.0



TEST NUMBER: P333343-840

CATALOG NUMBER: S125DIW-S375D470U840-4F0-1E-UDD-D1

**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	172.5	173.7	174.9	176.2	177.4	179.8	182.9	186.1	189.3	192.6	194.6
115°	200.1	201.2	202.4	203.5	204.6	206.6	209.5	212.4	215.3	218.2	219.9
117.5°	227.8	228.4	229.1	229.7	230.5	232.2	234.9	237.6	240.3	243.1	244.9
120°	245.4	246.2	247.0	247.8	248.6	250.3	252.8	255.3	257.8	260.2	262.1
122.5°	264.1	264.4	264.7	265.0	265.4	266.8	269.3	272.0	274.5	277.1	278.6
125°	289.7	290.2	290.7	291.2	291.8	293.2	295.3	297.5	299.6	301.8	303.3
127.5°	316.8	317.0	317.2	317.5	317.7	318.7	320.6	322.4	324.3	326.1	327.5
130°	333.3	333.7	334.1	334.5	334.9	335.9	337.5	339.2	340.8	342.5	343.9
132.5°	349.3	350.1	350.9	351.7	352.6	353.6	354.7	355.7	356.8	357.9	359.2
135°	375.4	375.9	376.4	376.9	377.4	378.0	378.9	379.7	380.5	381.3	382.7
137.5°	399.8	400.3	400.8	401.3	401.8	402.3	402.9	403.5	404.0	404.7	406.0
140°	415.2	415.7	416.2	416.7	417.2	417.7	418.1	418.5	418.9	419.3	420.6
142.5°	430.9	431.2	431.6	431.9	432.3	432.6	433.0	433.4	433.8	434.2	435.4
145°	454.0	454.3	454.6	454.9	455.2	455.6	455.9	456.2	456.5	456.8	457.3
147.5°	475.0	475.2	475.4	475.6	475.9	476.2	476.4	476.7	476.9	477.2	477.6
150°	489.3	489.2	489.1	489.0	488.9	489.1	489.5	489.9	490.3	490.7	490.7
152.5°	501.0	501.2	501.3	501.4	501.6	501.7	501.9	502.1	502.2	502.4	502.6
155°	519.1	519.1	519.1	519.1	519.1	519.1	519.2	519.3	519.4	519.5	519.9
157.5°	535.1	534.9	534.7	534.5	534.2	534.2	534.3	534.4	534.5	534.6	535.0
160°	544.7	544.4	544.0	543.7	543.4	543.3	543.4	543.5	543.6	543.7	544.2
162.5°	553.1	552.9	552.7	552.4	552.2	552.1	552.1	552.1	552.2	552.2	552.7
165°	564.3	564.1	563.9	563.7	563.5	563.5	563.6	563.7	563.8	563.9	564.3
167.5°	573.9	573.5	573.1	572.7	572.3	572.1	572.1	572.1	572.1	572.1	572.7
170°	579.0	578.6	578.1	577.7	577.3	577.1	577.1	577.1	577.1	577.1	577.7
172.5°	582.7	582.3	581.9	581.5	581.1	580.9	580.9	580.9	580.9	580.9	581.5
175°	586.8	586.3	585.9	585.5	585.1	584.9	584.9	584.9	584.9	584.9	585.5
177.5°	588.9	588.5	588.2	587.9	587.5	587.3	587.3	587.2	587.1	587.0	587.5
180°	588.1	588.1	588.1	588.1	588.1	588.1	588.1	588.1	588.1	588.1	588.1



TEST NUMBER: P333343-840

CATALOG NUMBER: S125DIW-S375D470U840-4F0-1E-UDD-D1

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
0°	476.1	476.1	476.1	476.1	476.1	476.1	476.1	476.1
2.5°	474.9	475.5	476.2	476.4	476.3	476.3	476.2	476.1
5°	473.5	474.3	475.1	475.5	475.4	475.3	475.2	475.1
7.5°	469.6	470.3	471.0	471.3	471.2	471.1	471.0	470.9
10°	465.9	466.6	467.3	467.6	467.5	467.4	467.3	467.2
12.5°	461.4	461.9	462.5	462.6	462.4	462.1	461.8	461.6
15°	453.0	453.6	454.2	454.3	453.9	453.5	453.1	452.7
17.5°	442.4	442.8	443.3	443.4	443.2	442.9	442.7	442.4
20°	434.2	434.5	434.8	434.9	434.9	434.9	434.9	434.9
22.5°	425.8	426.2	426.6	426.7	426.4	426.2	425.9	425.7
25°	412.4	412.9	413.3	413.2	412.7	412.2	411.7	411.2
27.5°	397.0	397.3	397.6	397.7	397.5	397.3	397.1	396.9
30°	386.4	386.6	386.8	386.9	386.8	386.7	386.6	386.5
32.5°	376.3	376.5	376.7	376.8	376.7	376.6	376.5	376.4
35°	360.0	360.3	360.6	360.7	360.7	360.7	360.7	360.7
37.5°	342.8	343.3	343.7	343.9	343.9	343.8	343.8	343.7
40°	331.2	331.6	332.1	332.4	332.6	332.9	333.1	333.3
42.5°	320.6	321.1	321.6	321.8	321.9	321.9	321.9	322.0
45°	303.5	304.2	304.9	305.3	305.4	305.5	305.6	305.7
47.5°	285.7	286.8	287.8	288.4	288.7	288.9	289.1	289.3
50°	273.9	275.1	276.2	276.9	277.2	277.5	277.8	278.1
52.5°	262.2	263.4	264.6	265.3	265.5	265.8	266.0	266.2
55°	243.6	244.7	245.9	246.6	247.0	247.4	247.9	248.3
57.5°	225.2	226.5	227.8	228.6	228.9	229.2	229.6	229.9
60°	212.7	214.2	215.8	216.7	217.0	217.3	217.6	217.9
62.5°	200.0	201.7	203.4	204.4	204.8	205.2	205.6	206.0
65°	181.0	182.5	184.0	185.0	185.4	185.8	186.3	186.7
67.5°	161.5	163.3	165.2	166.4	166.9	167.5	168.0	168.5
70°	148.1	150.2	152.1	153.4	154.0	154.6	155.2	155.9
72.5°	135.8	137.9	140.1	141.4	141.8	142.3	142.7	143.2
75°	117.1	119.2	121.3	122.5	123.1	123.6	124.1	124.6
77.5°	98.4	100.7	102.9	104.3	104.7	105.1	105.5	105.9
80°	87.2	89.5	91.7	93.1	93.5	93.9	94.3	94.7
82.5°	76.5	78.8	81.0	82.4	83.2	83.9	84.6	85.4
85°	62.0	64.2	66.6	68.1	68.9	69.8	70.6	71.4
87.5°	51.8	54.3	56.8	58.4	59.2	60.0	60.8	61.6
90°	51.4	54.2	57.2	59.2	60.2	61.2	62.2	63.2
92.5°	60.3	63.3	66.2	68.2	69.2	70.1	71.1	72.0
95°	75.3	78.3	81.3	83.2	84.2	85.1	86.0	86.9
97.5°	93.5	96.4	99.3	101.1	101.9	102.7	103.6	104.4
100°	106.1	109.2	112.3	114.2	115.0	115.9	116.7	117.5
102.5°	119.3	122.3	125.4	127.4	128.4	129.3	130.2	131.1
105°	140.5	143.1	145.8	147.6	148.7	149.8	150.8	151.8
107.5°	164.0	166.3	168.7	170.2	170.9	171.5	172.1	172.7
110°	180.3	182.6	184.8	186.3	186.9	187.5	188.1	188.7





TEST NUMBER: P333343-840

CATALOG NUMBER: S125DIW-S375D470U840-4F0-1E-UDD-D1

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	196.6	198.6	200.7	202.0	202.5	203.1	203.6	204.1
115°	221.8	223.5	225.3	226.4	226.9	227.4	228.0	228.5
117.5°	246.8	248.6	250.4	251.6	251.9	252.2	252.5	252.8
120°	263.8	265.6	267.3	268.3	268.5	268.7	268.9	269.1
122.5°	280.2	281.9	283.5	284.4	284.7	285.0	285.3	285.6
125°	304.8	306.2	307.7	308.6	309.0	309.4	309.8	310.2
127.5°	328.9	330.3	331.7	332.8	333.1	333.5	333.9	334.3
130°	345.2	346.6	347.9	348.7	349.1	349.4	349.7	350.0
132.5°	360.5	361.9	363.2	364.1	364.2	364.4	364.5	364.7
135°	384.1	385.4	386.8	387.5	387.6	387.7	387.8	387.9
137.5°	407.4	408.7	410.0	410.7	410.6	410.5	410.4	410.3
140°	421.9	423.3	424.6	425.3	425.2	425.1	425.0	425.0
142.5°	436.5	437.6	438.7	439.2	439.1	439.0	438.9	438.8
145°	457.9	458.4	458.9	459.2	459.3	459.4	459.5	459.6
147.5°	478.0	478.4	478.8	478.7	478.2	477.7	477.2	476.7
150°	490.7	490.7	490.7	490.6	490.5	490.4	490.3	490.2
152.5°	502.9	503.1	503.3	503.3	502.9	502.6	502.3	501.9
155°	520.3	520.7	521.1	521.1	520.6	520.1	519.6	519.1
157.5°	535.4	535.8	536.2	536.1	535.4	534.7	534.1	533.4
160°	544.6	545.0	545.4	545.3	544.8	544.3	543.8	543.3
162.5°	553.2	553.6	554.1	554.1	553.5	552.9	552.3	551.7
165°	564.7	565.1	565.5	565.4	564.8	564.2	563.6	563.0
167.5°	573.3	573.9	574.5	574.5	573.8	573.2	572.6	572.0
170°	578.3	579.0	579.7	579.6	578.9	578.1	577.4	576.7
172.5°	582.1	582.7	583.3	583.3	582.6	582.0	581.4	580.8
175°	586.1	586.8	587.4	587.3	586.6	585.9	585.2	584.5
177.5°	588.0	588.5	589.1	589.0	588.4	587.8	587.2	586.7
180°	588.1	588.1	588.1	588.1	588.1	588.1	588.1	588.1

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