

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: P243685

Luminaire Tested: **S125DR-H375D935-X4F0-XX-UDD-A-W**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P243685
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1802-639-61)
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S125DR-H375D935-X4F0-XX-UDD-A-W
Description: DEFINE 5 DIRECT RECESSED WITH ASYMMETRIC FLUSH DIFFUSER.
HIGH PERFORMANCE LIGHT ENGINE
Light Source: (184) 3500K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1266.6 lumens
Efficiency: N/A
Efficacy: 113.1 lumens/watt
Spacing Criteria (0/90/45): 1.43 / 1.22 / 1.53
Luminous Opening: Rectangular (W 3.88' x L: 0.39' x H: 0')
CIE Type: Direct

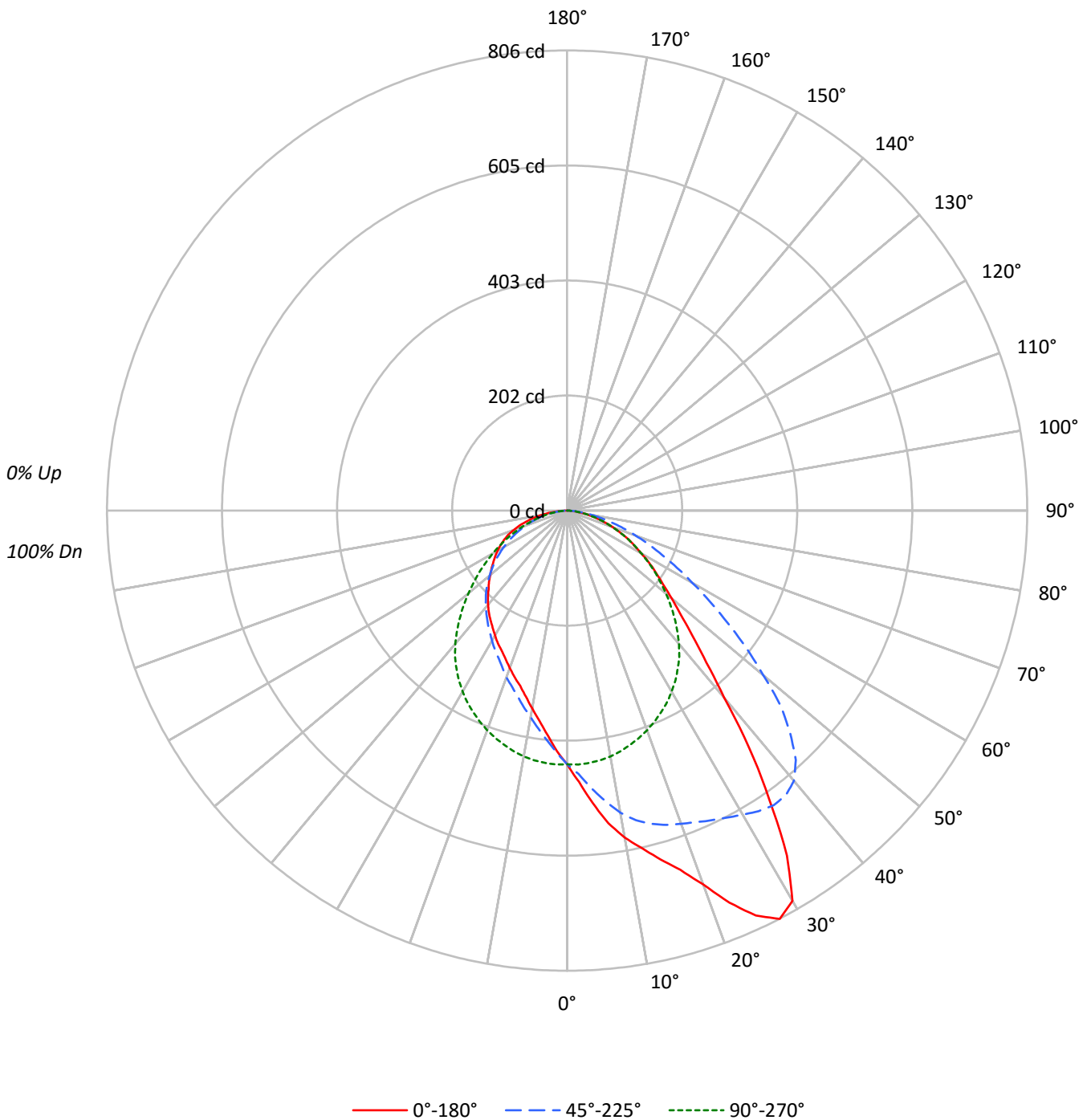
Input Watts (W): 11.2
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P243685

CATALOG NUMBER: S125DR-H375D935-X4F0-XX-UDD-A-W

Luminous Intensity Polar Plot





TEST NUMBER: P243685

CATALOG NUMBER: S125DR-H375D935-X4F0-XX-UDD-A-W

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	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	109	105	101	97	107	103	99	96	99	96	93	95	92	90	91	89	87	85
2	100	92	86	80	97	90	84	79	87	82	78	84	79	76	81	77	74	72
3	92	82	74	68	89	80	73	67	77	71	66	74	69	65	72	67	63	61
4	84	73	64	58	82	71	63	57	69	62	56	66	61	56	64	59	55	53
5	78	65	56	50	75	64	56	50	62	55	49	60	54	49	58	53	48	46
6	72	59	50	44	70	58	50	44	56	49	43	54	48	43	53	47	43	40
7	67	53	45	39	65	53	44	39	51	44	38	50	43	38	48	42	38	36
8	62	49	40	35	60	48	40	35	47	40	34	46	39	34	44	38	34	32
9	58	45	37	31	57	44	36	31	43	36	31	42	36	31	41	35	31	29
10	54	41	34	28	53	41	33	28	40	33	28	39	33	28	38	32	28	26

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	3159	3159	3159
5°	3669	3166	2813
10°	4198	3155	2539
15°	4654	3126	2339
20°	5269	3096	2219
25°	6136	3055	2125
30°	6478	3005	2074
35°	5357	2932	2029
40°	3963	2826	1999
45°	3116	2672	1956
50°	2638	2499	1948
55°	2349	2327	1957
60°	2131	2136	1999
65°	1976	1958	2055
70°	1775	1752	2068
75°	1513	1538	2038
80°	1240	1261	1903
85°	856	897	1615



TEST NUMBER: P243685

CATALOG NUMBER: S125DR-H375D935-X4F0-XX-UDD-A-W

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	42.9	3.4
10°-20°	128.3	10.1
20°-30°	208.6	16.5
30°-40°	253.7	20.0
40°-50°	232.2	18.3
50°-60°	185.8	14.7
60°-70°	129.4	10.2
70°-80°	68.8	5.4
80°-90°	16.9	1.3
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	379.8	30.0
0°-40°	633.5	50.0
0°-60°	1051.5	83.0
0°-90°	1266.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1266.6	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	444	444	444	444	444	
5°	514	488	444	404	394	51
15°	632	568	425	336	318	181
25°	782	598	390	285	271	357
35°	617	630	338	242	234	383
45°	310	552	266	201	195	244
55°	190	343	188	153	158	171
65°	118	183	116	103	122	116
75°	55	81	56	54	74	60
85°	10	16	11	12	20	14
90°	0	0	0	0	0	



TEST NUMBER: P243685

CATALOG NUMBER: S125DR-H375D935-X4F0-XX-UDD-A-W

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	444.4	444.4	444.4	444.4	444.4	444.4	444.4	444.4	444.4	444.4	444.4
2.5°	475.8	473.8	473.2	473.4	472.3	471.4	469.3	466.4	464.4	461.9	461.2
5°	514.3	509.5	510.4	508.9	506.6	503.5	500.8	496.5	492.3	488.4	483.2
7.5°	552.2	551.3	548.8	548.4	544.6	539.4	534.0	528.0	519.2	513.1	506.0
10°	581.7	583.5	579.9	580.1	573.4	568.2	563.5	555.8	545.9	537.6	527.3
12.5°	605.5	606.2	605.7	603.4	599.0	590.2	585.7	577.6	566.8	555.4	547.5
15°	632.5	630.6	627.5	624.6	618.3	612.0	602.6	593.1	579.4	568.0	556.5
17.5°	659.6	659.2	655.4	649.3	641.4	633.1	619.0	606.8	592.2	577.2	562.8
20°	696.7	694.7	689.1	682.1	667.5	655.8	638.3	621.6	602.5	583.7	567.0
22.5°	743.2	736.7	731.1	720.3	703.6	683.2	663.5	639.2	612.5	590.6	569.7
25°	782.5	779.6	773.7	761.6	742.5	718.0	688.8	661.2	627.7	598.5	571.3
27.5°	806.3	805.0	801.4	790.1	774.2	749.9	718.7	683.5	645.5	606.1	573.4
30°	789.3	789.5	791.5	790.2	783.2	767.5	739.8	704.5	660.5	615.1	574.0
32.5°	716.5	721.4	736.9	744.3	754.2	757.4	745.0	715.6	673.1	624.1	575.8
35°	617.4	629.3	639.8	661.4	687.2	708.2	720.5	710.9	678.3	630.2	576.7
37.5°	524.1	523.2	539.4	562.8	590.2	626.1	660.8	679.9	669.3	628.9	575.1
40°	427.1	435.4	445.5	466.2	498.3	542.4	583.9	624.8	639.6	617.8	568.8
42.5°	360.8	364.6	374.7	390.9	414.0	459.0	499.9	552.5	590.4	592.9	554.9
45°	310.0	314.1	317.0	333.0	354.5	384.8	426.7	479.7	530.5	552.5	532.4
47.5°	269.2	271.6	277.9	287.6	301.7	328.5	362.0	410.2	465.5	508.2	501.4
50°	238.6	240.4	245.5	250.9	262.4	282.2	309.2	348.7	401.9	448.6	463.9
52.5°	211.6	213.9	216.4	221.7	232.3	245.6	267.6	298.4	347.8	395.6	419.9
55°	189.6	190.5	193.2	197.2	205.3	215.4	232.8	260.8	295.4	342.9	376.5
57.5°	170.5	169.6	172.5	175.2	180.6	189.0	201.7	222.4	255.4	295.9	330.9
60°	149.9	150.8	153.0	155.2	158.9	166.3	176.2	192.8	217.0	253.4	289.1
62.5°	132.3	133.0	133.5	136.6	140.0	145.3	153.4	166.9	186.9	217.0	248.9
65°	117.5	116.2	117.0	119.1	121.8	126.1	133.7	143.6	158.6	183.1	209.6
67.5°	100.2	100.6	100.7	102.0	104.3	108.5	113.9	122.0	134.3	153.5	176.8
70°	85.4	85.6	85.8	86.9	88.8	91.2	95.0	101.3	111.7	126.7	144.9
72.5°	70.3	71.0	71.0	71.9	73.3	74.6	78.2	83.4	91.4	103.3	118.6
75°	55.1	56.4	56.8	57.8	59.1	59.5	62.2	66.3	71.4	81.1	93.2
77.5°	42.9	42.9	43.6	44.9	44.9	46.0	48.8	50.6	54.6	61.3	70.5
80°	30.3	30.8	30.8	31.2	31.9	32.8	34.1	35.7	39.1	44.0	48.8
82.5°	19.8	20.0	20.2	21.1	20.7	21.6	22.2	24.1	25.8	28.1	31.2
85°	10.5	10.5	10.6	11.2	11.7	11.9	12.3	13.2	14.4	15.5	17.3
87.5°	4.3	4.1	4.1	4.5	4.5	4.7	4.9	5.2	5.9	5.9	6.7
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P243685

CATALOG NUMBER: S125DR-H375D935-X4F0-XX-UDD-A-W

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	444.4	444.4	444.4	444.4	444.4	444.4	444.4	444.4	444.4	444.4	444.4
2.5°	460.6	459.2	456.7	454.5	451.8	449.8	447.8	445.3	442.8	440.1	437.2
5°	479.0	474.7	469.8	465.0	459.2	454.5	449.5	443.7	438.8	433.4	427.6
7.5°	500.1	492.5	484.1	474.5	465.5	457.4	449.1	441.2	434.0	425.8	417.9
10°	520.5	507.3	496.7	483.7	470.9	459.0	447.7	437.2	426.7	416.7	406.9
12.5°	534.3	519.4	506.0	491.1	476.1	461.2	446.2	431.8	419.4	407.1	396.8
15°	543.9	533.4	515.8	497.7	478.1	458.6	441.7	424.9	410.2	395.9	383.7
17.5°	549.8	536.3	519.0	500.1	478.5	458.1	437.7	417.7	400.8	385.5	371.6
20°	551.5	535.6	517.6	497.9	476.3	454.0	431.1	409.3	390.9	373.4	359.3
22.5°	549.8	531.4	512.2	493.1	470.4	447.7	423.7	399.9	378.8	360.8	346.0
25°	547.1	525.0	504.8	482.3	461.2	439.5	414.9	389.6	367.6	348.9	332.3
27.5°	543.7	518.3	493.4	471.3	448.4	427.1	404.4	378.6	355.7	335.2	319.7
30°	539.7	509.5	481.9	455.6	434.0	412.7	390.5	366.2	343.1	323.5	306.7
32.5°	535.2	500.1	467.7	439.4	416.3	396.6	375.9	352.7	330.0	308.9	294.3
35°	528.9	487.3	452.3	421.7	397.7	376.5	358.3	337.9	315.4	295.7	280.6
37.5°	521.5	475.9	436.8	403.7	377.5	355.7	339.0	322.4	301.3	282.4	267.8
40°	511.6	462.2	420.4	384.6	356.6	335.2	318.8	304.6	287.1	268.0	254.8
42.5°	498.7	447.1	401.9	363.7	336.6	313.8	298.4	285.5	270.5	253.9	240.9
45°	483.9	429.8	381.2	343.7	314.3	292.5	277.5	265.8	254.5	239.7	227.6
47.5°	460.8	409.4	362.4	321.0	292.1	271.0	257.0	245.8	237.3	225.6	213.7
50°	433.4	386.4	340.2	298.6	269.4	249.1	235.7	226.0	218.8	209.8	200.8
52.5°	403.3	360.4	315.9	277.0	247.8	228.5	214.5	205.8	201.1	193.9	186.9
55°	368.2	331.2	289.8	254.3	225.6	206.0	193.9	187.8	182.6	179.0	172.6
57.5°	332.9	301.7	264.7	229.6	203.3	185.8	175.0	168.1	164.4	161.8	157.3
60°	294.3	269.8	235.9	205.4	182.0	165.4	155.9	150.3	146.9	145.4	142.4
62.5°	257.5	238.8	208.0	182.6	161.7	147.1	137.5	133.0	130.8	129.2	127.4
65°	221.3	206.5	182.2	158.4	140.7	127.6	120.0	116.4	114.8	113.0	112.8
67.5°	188.7	175.2	155.7	136.2	121.5	110.3	103.6	100.0	98.2	98.4	97.5
70°	156.6	146.2	130.3	114.4	101.8	93.0	86.7	84.3	83.6	83.4	82.7
72.5°	126.7	120.7	106.9	93.5	83.6	76.8	71.7	69.7	68.8	68.5	68.5
75°	100.4	96.1	84.2	74.1	66.5	60.9	57.5	56.0	54.8	55.5	55.0
77.5°	75.3	71.7	63.6	56.4	50.6	46.0	44.3	43.1	42.4	42.2	42.9
80°	53.0	50.8	45.8	40.0	35.7	33.0	31.9	30.8	30.3	29.9	30.3
82.5°	34.1	32.8	29.2	25.8	23.2	21.8	20.7	20.2	19.3	19.5	19.8
85°	18.6	18.2	15.9	14.8	12.4	12.3	11.5	11.0	11.2	10.8	11.4
87.5°	7.6	7.2	6.7	6.1	5.4	4.9	4.5	4.9	4.3	4.9	4.7
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P243685

CATALOG NUMBER: S125DR-H375D935-X4F0-XX-UDD-A-W

CANDELA DISTRIBUTION (continued):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	444.4	444.4	444.4	444.4	444.4	444.4	444.4	444.4	444.4	444.4	444.4
2.5°	435.8	433.8	431.4	429.3	426.0	423.9	422.8	423.1	421.9	421.5	421.3
5°	424.2	419.7	415.4	411.8	408.0	403.7	400.6	399.7	399.4	398.5	396.5
7.5°	412.3	406.6	401.0	395.7	390.3	385.3	382.2	379.7	378.3	375.7	375.2
10°	399.7	392.7	386.7	379.2	372.7	367.5	363.5	361.3	360.1	357.7	355.7
12.5°	387.6	380.3	371.1	364.2	357.4	352.0	347.5	343.8	342.9	339.9	338.3
15°	374.7	365.7	357.4	349.4	342.9	336.1	333.4	330.2	326.9	324.2	323.7
17.5°	362.2	351.4	343.3	335.6	327.6	322.6	319.0	316.8	314.3	312.9	310.3
20°	347.3	338.4	329.4	322.2	315.4	311.0	306.2	304.2	302.4	299.0	297.9
22.5°	334.7	324.0	316.5	309.2	303.1	297.0	293.6	291.6	288.9	287.1	285.6
25°	321.5	312.7	303.1	295.9	290.7	284.6	282.2	279.7	277.3	275.7	274.3
27.5°	308.7	299.0	291.2	284.0	278.6	274.3	271.0	268.3	266.7	265.5	264.6
30°	295.4	286.4	279.2	272.5	266.4	262.8	259.7	258.6	256.8	255.9	254.5
32.5°	283.3	274.1	267.3	261.5	256.1	252.5	250.7	249.1	247.3	245.6	245.5
35°	269.6	261.7	255.4	249.1	245.1	242.2	240.2	238.6	237.2	235.9	235.2
37.5°	257.5	250.0	242.9	238.4	234.1	231.6	229.4	228.9	227.4	227.6	226.5
40°	244.5	237.7	231.8	227.2	224.4	221.7	220.2	218.4	217.5	217.7	216.8
42.5°	231.9	225.6	220.2	216.1	213.0	211.0	209.8	208.3	207.2	206.5	206.3
45°	219.1	213.6	209.0	204.9	202.4	200.6	199.0	197.2	196.3	195.9	195.7
47.5°	206.5	201.5	196.6	193.7	191.4	189.8	188.1	186.7	186.0	185.4	184.5
50°	193.5	188.5	185.1	181.5	179.5	177.3	175.5	174.8	173.9	173.7	174.6
52.5°	180.0	176.1	173.0	170.1	167.8	165.4	163.6	162.7	163.3	163.3	164.4
55°	167.2	163.1	160.2	157.9	155.3	153.2	151.4	151.4	151.4	152.5	153.9
57.5°	153.0	149.4	147.2	144.5	142.2	140.7	139.5	139.3	140.0	141.8	143.4
60°	138.6	136.1	133.7	131.6	129.2	128.1	128.0	127.6	128.7	130.5	133.9
62.5°	124.3	122.7	119.8	118.8	116.8	115.5	115.5	115.9	117.5	120.4	123.4
65°	110.7	108.3	106.1	105.1	103.8	102.7	102.7	104.2	106.5	109.2	113.0
67.5°	96.6	94.6	93.2	92.1	90.6	90.1	90.6	92.3	95.2	97.9	101.8
70°	81.5	81.1	79.8	78.4	77.7	77.7	78.2	80.0	82.2	86.3	89.7
72.5°	67.6	67.6	66.9	66.0	65.4	66.0	66.3	68.1	70.8	74.4	78.2
75°	55.0	54.4	53.9	53.5	53.3	53.7	54.2	55.7	58.9	62.4	65.4
77.5°	42.5	42.2	41.6	42.0	42.0	42.2	43.8	45.4	47.2	49.9	53.2
80°	30.6	30.8	30.3	30.1	31.0	31.4	32.6	33.9	35.1	38.2	40.5
82.5°	20.2	20.5	20.4	20.7	21.1	21.1	22.5	23.8	24.9	27.0	28.8
85°	11.5	11.7	11.7	12.3	12.6	12.4	13.7	14.4	15.0	16.6	17.7
87.5°	5.0	5.2	5.4	5.4	5.4	6.1	6.3	6.7	6.8	7.2	7.7
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P243685

CATALOG NUMBER: S125DR-H375D935-X4F0-XX-UDD-A-W

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°
0°	444.4	444.4	444.4	444.4
2.5°	419.7	419.5	420.4	421.0
5°	395.2	394.7	393.9	394.3
7.5°	373.4	372.0	371.6	371.6
10°	354.1	352.7	352.3	351.8
12.5°	337.7	335.6	334.7	333.8
15°	322.2	321.9	319.9	317.9
17.5°	308.0	308.5	306.5	305.6
20°	296.1	294.5	293.7	293.4
22.5°	284.0	282.8	282.8	281.5
25°	273.2	272.1	272.3	271.0
27.5°	263.1	262.9	262.8	262.4
30°	253.7	253.0	252.3	252.7
32.5°	244.7	243.6	243.1	242.9
35°	235.4	235.0	234.3	233.9
37.5°	226.2	226.3	225.4	225.3
40°	216.3	216.1	215.9	215.5
42.5°	205.8	205.3	205.6	205.4
45°	195.4	194.8	195.2	194.6
47.5°	185.1	185.4	185.4	185.6
50°	175.0	175.7	175.7	176.2
52.5°	165.6	167.1	167.1	166.9
55°	155.5	157.1	157.7	157.9
57.5°	146.0	147.6	149.2	149.6
60°	135.7	138.6	140.2	140.6
62.5°	126.5	129.2	131.4	131.6
65°	116.2	119.5	121.5	122.2
67.5°	105.8	108.3	111.0	112.1
70°	93.9	97.0	98.8	99.5
72.5°	81.5	84.9	87.2	87.6
75°	69.6	72.1	73.9	74.2
77.5°	56.0	58.6	60.2	60.6
80°	42.5	44.7	45.8	46.5
82.5°	30.1	31.5	32.1	32.8
85°	18.6	19.6	19.8	19.8
87.5°	8.1	8.3	8.3	8.7
90°	0.0	0.0	0.0	0.0

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