

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: P243793

Luminaire Tested: **S125RDR-H375D940-X4F0-XX-UDD-A-W**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P243793
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1802-639-71)
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S125RDR-H375D940-X4F0-XX-UDD-A-W
Description: DEFINE 5 REGRESSED DIRECT RECESSED WITH ASYMMETRIC FLUSH DIFFUSER.
HIGH PERFORMANCE LIGHT ENGINE
Light Source: (184) 4000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1252.7 lumens
Efficiency: N/A
Efficacy: 111.9 lumens/watt
Spacing Criteria (0/90/45): 1.42 / 1.22 / 1.5
Luminous Opening: Rectangular (W 3.88' x L: 0.39' x H: 0')
CIE Type: Direct

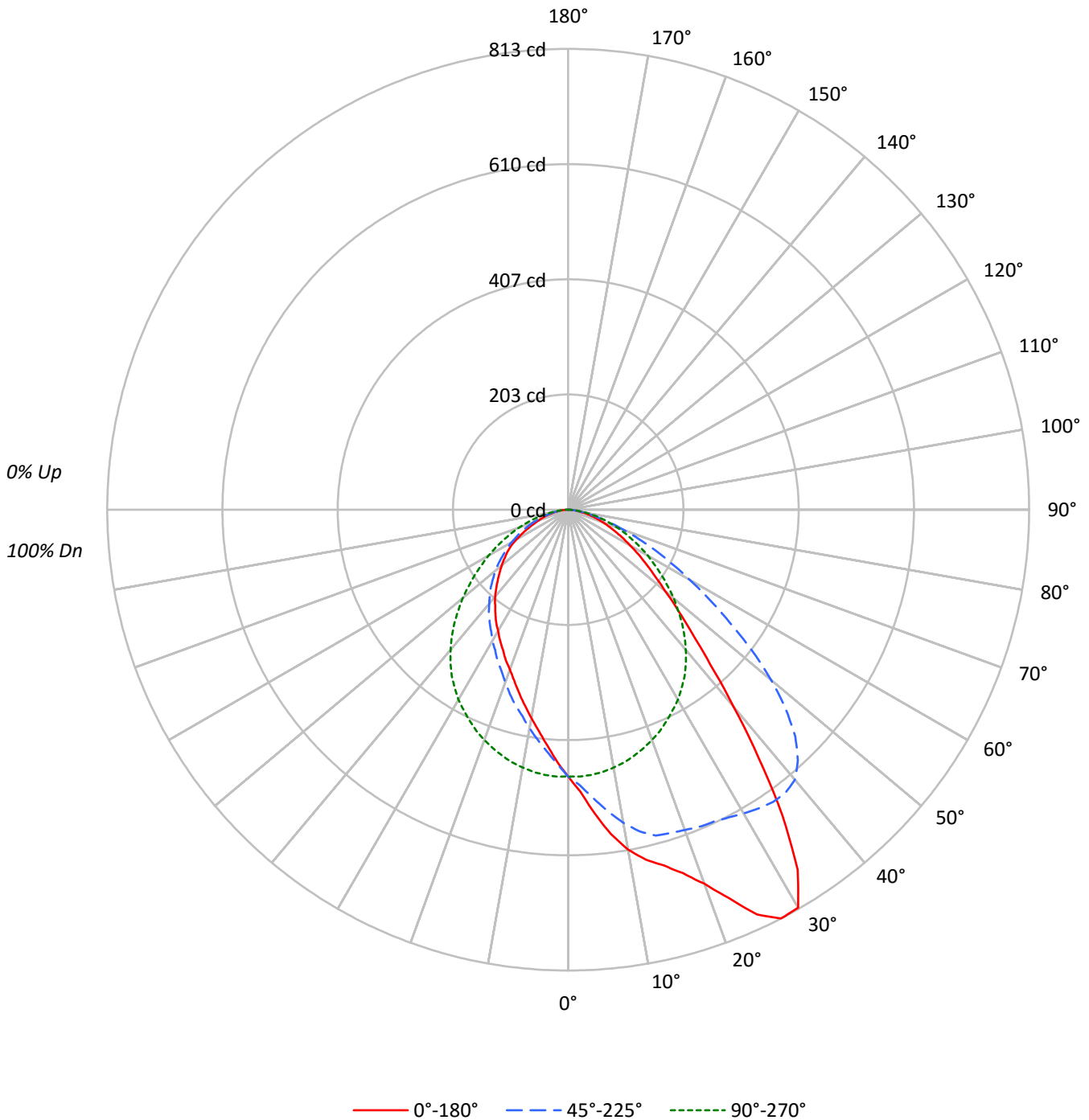
Input Watts (W): 11.2
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P243793

CATALOG NUMBER: S125RDR-H375D940-X4F0-XX-UDD-A-W

Luminous Intensity Polar Plot





TEST NUMBER: P243793

CATALOG NUMBER: S125RDR-H375D940-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	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					100			
1	110	106	102	98	107	103	100	97	99	96	94	95	93	91	92	90	88	86					86			
2	101	93	87	82	98	91	86	81	88	83	79	85	81	77	82	78	75	73					73			
3	92	83	75	69	90	81	74	68	78	72	67	75	70	66	73	69	65	63					63			
4	85	74	65	59	83	72	65	59	70	63	58	68	62	57	66	61	56	54					54			
5	78	66	58	51	76	65	57	51	63	56	51	61	55	50	59	54	50	48					48			
6	73	60	51	45	71	59	51	45	57	50	45	56	49	44	54	48	44	42					42			
7	67	54	46	40	66	54	46	40	52	45	40	51	44	39	49	44	39	37					37			
8	63	50	42	36	61	49	41	36	48	41	36	47	40	35	45	40	35	33					33			
9	59	46	38	32	57	45	38	32	44	37	32	43	37	32	42	36	32	30					30			
10	55	42	35	29	54	42	34	29	41	34	29	40	34	29	39	33	29	27					27			

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	3345	3345	3345
5°	3840	3350	2980
10°	4394	3334	2694
15°	4779	3307	2463
20°	5310	3270	2270
25°	6180	3223	2137
30°	6654	3175	2028
35°	5716	3104	1940
40°	4211	2992	1860
45°	3111	2854	1763
50°	2465	2682	1692
55°	2082	2486	1628
60°	1794	2303	1507
65°	1557	2097	1312
70°	1365	1920	1147
75°	1159	1681	1087
80°	900	1404	900
85°	791	1125	824



TEST NUMBER: P243793

CATALOG NUMBER: S125RDR-H375D940-X4F0-XX-UDD-A-W

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	45.3	3.6
10°-20°	134.0	10.7
20°-30°	213.8	17.1
30°-40°	259.6	20.7
40°-50°	233.9	18.7
50°-60°	179.9	14.4
60°-70°	116.7	9.3
70°-80°	56.2	4.5
80°-90°	13.3	1.1
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°	393.2	31.4
0°-40°	652.7	52.1
0°-60°	1066.5	85.1
0°-90°	1252.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1252.7	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	471	471	471	471	471	
5°	538	511	470	428	418	54
15°	650	595	449	358	335	186
25°	788	607	411	294	272	360
35°	659	630	358	242	224	403
45°	310	566	284	193	175	246
55°	168	348	201	140	131	152
65°	93	169	125	89	78	93
75°	42	57	61	44	40	45
85°	10	10	14	11	10	11
90°	0	0	0	0	0	



TEST NUMBER: P243793

CATALOG NUMBER: S125RDR-H375D940-X4F0-XX-UDD-A-W

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	470.7	470.7	470.7	470.7	470.7	470.7	470.7	470.7	470.7	470.7	470.7
2.5°	498.0	499.8	498.3	499.3	497.8	497.0	495.2	492.4	489.6	486.9	486.8
5°	538.3	537.9	536.4	534.4	532.9	529.1	527.3	520.9	516.6	511.4	508.8
7.5°	576.7	575.8	573.6	570.8	569.4	564.6	559.4	551.3	544.6	536.4	530.3
10°	608.8	608.6	607.0	605.1	600.1	594.6	589.6	581.2	571.1	560.9	552.3
12.5°	632.3	631.4	629.4	626.2	622.1	618.3	611.6	604.0	591.7	581.2	569.4
15°	649.5	649.1	646.2	645.0	637.0	631.8	622.8	615.2	605.7	595.2	582.5
17.5°	672.3	673.0	670.4	664.1	656.8	648.8	636.1	623.6	610.3	598.2	587.9
20°	702.1	700.3	695.8	688.1	675.1	665.2	652.5	637.0	619.1	601.2	586.4
22.5°	742.1	740.0	732.9	723.6	707.2	689.1	669.7	646.5	626.0	605.5	586.1
25°	788.0	784.1	773.6	763.6	740.2	721.0	692.1	664.4	634.6	607.3	585.5
27.5°	813.0	813.0	808.2	797.1	778.7	750.3	720.8	684.0	649.5	612.2	581.2
30°	810.8	809.5	811.3	806.7	794.7	773.4	744.1	705.5	661.5	618.7	581.6
32.5°	752.9	753.5	764.7	772.3	778.3	773.1	754.0	719.1	675.3	625.1	580.1
35°	658.8	660.3	680.1	693.2	719.9	735.2	739.7	720.8	681.4	629.5	577.5
37.5°	551.3	551.3	574.3	594.1	623.9	661.6	689.8	696.9	677.7	629.4	575.2
40°	453.9	453.4	471.5	495.7	527.6	569.3	611.3	647.3	651.9	622.1	567.4
42.5°	371.4	370.5	390.3	403.7	437.3	474.4	530.3	581.2	610.3	599.5	555.8
45°	309.5	308.7	321.6	336.9	360.6	399.2	446.1	502.6	551.5	566.5	534.2
47.5°	262.8	263.2	270.1	282.9	303.1	330.7	372.7	425.2	485.6	520.2	506.9
50°	222.9	224.2	229.4	239.1	253.8	276.0	312.1	359.5	421.6	467.4	470.2
52.5°	193.0	194.9	200.5	205.7	218.0	233.7	261.7	302.7	354.1	408.9	428.5
55°	168.0	168.9	172.1	177.7	186.8	199.9	220.2	251.6	299.2	348.1	382.6
57.5°	147.1	147.1	149.1	153.0	160.3	172.1	185.7	211.7	251.8	296.0	332.8
60°	126.2	126.9	128.4	132.7	137.6	146.5	159.8	176.2	210.9	247.9	287.4
62.5°	108.6	109.9	111.4	113.5	118.0	124.3	133.6	148.8	172.1	206.2	241.5
65°	92.6	93.9	94.1	96.5	99.5	104.7	111.8	122.8	142.2	169.1	198.2
67.5°	78.4	78.9	79.5	81.4	84.2	87.5	92.2	100.4	115.7	133.8	162.2
70°	65.7	66.1	66.3	68.3	69.6	72.6	75.0	80.3	90.0	104.0	126.0
72.5°	53.8	53.2	53.0	54.7	55.2	57.7	60.7	64.4	69.6	79.5	95.9
75°	42.2	42.4	42.6	43.5	43.7	44.8	46.7	49.1	51.5	57.3	67.8
77.5°	32.5	31.7	31.7	32.8	33.2	33.4	34.7	36.0	37.3	40.7	44.8
80°	22.0	22.4	22.4	22.4	22.6	23.0	23.7	24.8	25.8	27.8	28.6
82.5°	15.7	15.7	15.5	15.9	16.1	16.2	16.2	16.2	16.8	17.4	18.1
85°	9.7	9.9	9.3	9.7	9.9	9.9	9.9	9.9	10.5	10.3	10.5
87.5°	4.1	4.3	4.3	4.5	4.5	4.7	4.5	4.7	4.5	4.5	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: P243793

CATALOG NUMBER: S125RDR-H375D940-X4F0-XX-UDD-A-W

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	470.7	470.7	470.7	470.7	470.7	470.7	470.7	470.7	470.7	470.7	470.7
2.5°	486.2	484.0	482.8	480.6	477.6	475.8	473.9	471.3	469.2	466.0	463.2
5°	504.1	499.6	495.5	489.9	484.5	479.9	475.0	469.6	464.7	459.3	453.5
7.5°	524.1	517.0	508.4	498.5	490.1	482.8	474.6	466.6	459.3	450.7	442.9
10°	543.3	531.9	520.5	507.3	495.0	484.1	473.1	461.9	452.4	441.8	432.1
12.5°	558.2	547.4	530.4	514.0	498.0	484.0	470.2	456.5	444.0	432.3	420.7
15°	571.3	553.4	539.0	521.1	501.5	482.5	465.3	449.4	434.3	420.5	408.7
17.5°	575.0	559.0	543.3	522.4	501.3	479.7	459.9	441.0	424.2	408.9	395.7
20°	574.7	558.4	541.4	521.5	499.1	475.4	453.4	432.3	413.2	395.7	381.5
22.5°	569.1	553.4	536.2	516.1	493.3	468.8	445.7	422.4	401.7	383.4	368.8
25°	563.1	543.3	525.4	505.1	483.4	460.8	436.2	411.0	389.3	370.3	353.9
27.5°	557.9	534.2	512.1	492.2	470.0	449.6	425.2	398.9	376.6	356.7	339.7
30°	549.5	524.5	497.8	475.9	454.5	433.2	410.8	386.9	362.6	342.3	325.3
32.5°	542.2	510.7	481.7	457.1	435.6	417.0	395.5	372.5	348.8	329.4	311.1
35°	534.2	496.5	466.2	437.3	415.8	395.5	378.5	357.8	334.3	313.7	297.3
37.5°	524.7	481.9	447.2	417.7	395.5	374.6	359.3	340.8	319.5	299.2	282.9
40°	514.0	467.0	427.0	396.6	372.7	351.8	338.9	322.5	304.4	284.3	269.1
42.5°	500.6	451.1	408.7	375.5	349.0	330.2	317.3	303.7	287.1	269.5	253.1
45°	483.6	431.3	386.9	351.8	325.7	307.4	294.0	283.9	270.6	254.2	238.7
47.5°	462.9	410.6	364.5	328.1	302.9	285.4	272.9	262.8	252.7	238.5	223.8
50°	435.4	386.9	342.7	305.5	278.8	261.9	250.7	242.6	233.5	221.9	208.5
52.5°	405.2	360.2	316.9	282.2	256.4	239.5	227.9	221.2	214.3	204.7	193.2
55°	370.1	333.5	292.3	258.3	233.1	216.3	207.2	200.6	194.9	187.6	177.9
57.5°	333.0	300.9	265.0	233.7	210.0	194.1	186.1	180.7	175.8	170.6	162.6
60°	294.0	271.2	237.2	208.5	187.8	174.7	167.0	162.0	157.5	153.2	147.3
62.5°	253.3	234.4	209.0	184.6	166.1	153.8	148.2	143.9	139.2	135.5	131.2
65°	212.0	201.2	183.7	160.7	143.7	133.6	128.2	124.7	122.4	118.1	114.8
67.5°	174.5	168.5	153.6	138.1	125.1	115.9	110.9	108.3	105.8	103.8	100.0
70°	138.9	134.6	126.0	115.0	104.7	96.9	93.1	92.4	89.0	87.0	85.1
72.5°	105.8	104.7	97.6	92.8	87.0	80.8	78.0	76.5	74.3	72.4	71.7
75°	75.2	76.9	74.7	72.2	69.4	64.4	62.0	61.2	59.2	58.6	57.7
77.5°	51.3	53.8	54.5	53.4	52.1	50.4	48.7	48.0	45.9	45.5	45.0
80°	32.3	35.8	37.1	37.0	36.4	36.6	34.5	34.3	33.4	32.8	33.4
82.5°	19.6	21.5	23.9	24.5	23.7	24.1	23.5	22.8	22.8	23.1	22.4
85°	10.6	10.8	11.9	12.7	13.6	14.4	13.6	13.8	13.6	13.6	13.1
87.5°	4.7	4.9	4.9	4.7	5.0	5.4	6.2	6.5	6.3	5.8	5.0
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: P243793

CATALOG NUMBER: S125RDR-H375D940-X4F0-XX-UDD-A-W

CANDELA DISTRIBUTION (continued):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	470.7	470.7	470.7	470.7	470.7	470.7	470.7	470.7	470.7	470.7	470.7
2.5°	461.0	459.7	457.5	455.6	451.3	448.3	447.9	448.1	447.8	447.4	447.2
5°	449.8	445.5	441.4	437.9	433.0	428.2	425.9	425.0	424.6	422.6	423.7
7.5°	437.9	431.3	426.5	419.8	414.0	409.9	405.9	404.1	403.7	400.9	400.2
10°	425.2	417.3	410.1	403.3	397.5	391.8	387.1	385.4	383.2	380.9	377.6
12.5°	412.7	403.0	394.9	387.5	379.6	373.1	369.4	366.9	364.1	362.1	361.0
15°	397.7	389.5	379.6	371.6	363.6	357.8	352.8	348.3	345.7	344.0	339.3
17.5°	384.3	373.5	364.1	356.5	347.7	341.2	336.0	332.2	327.7	324.4	321.4
20°	369.9	358.7	350.1	341.0	332.0	324.0	317.5	314.5	311.3	308.1	306.5
22.5°	354.4	344.7	335.0	325.5	316.0	307.4	303.3	299.0	296.2	293.0	290.8
25°	341.0	330.4	320.7	310.0	299.6	294.5	288.9	284.6	282.4	279.2	276.8
27.5°	326.6	316.4	304.8	293.8	287.6	279.0	275.3	271.9	269.0	265.8	264.1
30°	313.2	301.2	289.7	281.1	273.1	266.9	263.4	259.2	255.1	253.6	251.4
32.5°	299.0	286.1	276.0	267.5	260.7	253.3	249.9	246.6	242.6	240.8	238.7
35°	284.3	271.8	261.9	254.0	247.1	241.5	237.8	234.2	231.8	229.0	227.5
37.5°	268.8	257.9	248.4	240.6	234.2	229.8	225.1	222.3	218.9	216.3	215.2
40°	254.0	244.3	235.2	227.9	222.1	216.7	212.6	209.0	207.0	204.7	202.9
42.5°	240.8	230.7	222.9	215.2	210.0	204.7	200.6	198.0	194.5	193.5	190.9
45°	226.6	217.3	209.4	202.3	196.9	192.6	187.8	184.6	182.3	180.1	179.2
47.5°	212.2	203.6	196.3	189.8	184.2	179.4	175.6	172.3	169.8	167.8	166.7
50°	198.2	190.7	183.5	177.1	171.3	167.8	163.3	159.6	157.7	155.5	154.2
52.5°	183.5	177.3	169.5	164.1	158.6	154.0	149.5	147.1	145.2	143.3	142.4
55°	169.7	163.1	156.4	150.6	145.4	140.5	137.0	135.1	132.7	131.6	131.4
57.5°	155.5	148.8	143.2	137.9	132.0	128.2	125.1	122.8	120.8	119.8	119.8
60°	140.0	134.6	129.3	123.6	119.3	115.0	111.6	110.1	108.1	107.7	106.4
62.5°	125.8	120.8	115.7	110.3	106.4	102.1	99.7	97.6	96.5	95.0	93.5
65°	111.1	106.6	101.7	97.1	93.9	89.2	87.0	84.5	83.2	81.6	79.7
67.5°	96.9	92.6	88.1	83.8	81.2	76.7	75.2	72.2	71.3	69.4	67.8
70°	81.9	78.9	75.4	71.1	68.9	65.3	63.8	61.0	59.5	58.4	57.5
72.5°	69.1	66.3	62.2	59.4	56.6	54.3	51.9	50.6	49.3	48.3	48.2
75°	56.4	52.8	50.4	47.8	45.9	43.7	42.6	41.6	41.1	40.5	39.9
77.5°	43.1	41.6	39.2	36.6	35.1	34.2	33.4	33.0	32.5	32.3	31.7
80°	32.1	30.0	28.6	27.6	26.5	25.8	25.2	23.9	23.1	22.8	22.4
82.5°	21.3	20.7	19.6	18.7	17.7	17.5	17.0	16.6	16.4	16.4	16.2
85°	12.9	11.4	11.4	11.2	11.2	11.0	10.6	10.6	10.3	10.8	10.8
87.5°	5.2	5.2	4.9	4.9	5.0	4.7	4.5	4.5	4.5	4.3	4.5
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: P243793

CATALOG NUMBER: S125RDR-H375D940-X4F0-XX-UDD-A-W

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°
0°	470.7	470.7	470.7	470.7
2.5°	447.2	446.3	446.4	445.3
5°	421.6	421.1	419.2	417.7
7.5°	398.3	395.9	395.7	394.2
10°	376.5	374.2	373.1	373.3
12.5°	357.4	355.0	355.0	353.5
15°	337.1	334.6	335.0	334.8
17.5°	320.3	318.6	317.3	316.2
20°	303.9	301.8	301.1	300.1
22.5°	288.7	287.2	287.4	287.4
25°	274.4	274.6	272.9	272.5
27.5°	261.7	261.3	260.9	260.2
30°	249.7	248.2	247.9	247.1
32.5°	237.4	237.2	235.7	236.3
35°	224.9	224.3	224.0	223.6
37.5°	213.3	212.2	212.0	211.7
40°	201.6	201.2	199.5	200.5
42.5°	188.9	188.1	188.1	188.1
45°	178.2	176.2	176.2	175.4
47.5°	166.3	165.6	165.2	163.9
50°	154.5	153.4	153.0	153.0
52.5°	142.4	142.2	142.6	141.8
55°	131.8	132.0	131.8	131.4
57.5°	120.2	119.3	119.3	119.5
60°	106.4	106.4	106.8	106.0
62.5°	93.1	92.8	91.5	91.1
65°	79.5	78.0	77.8	78.0
67.5°	67.4	66.8	65.9	66.1
70°	56.9	56.7	55.8	55.2
72.5°	47.6	47.6	47.0	47.0
75°	39.8	39.4	39.2	39.6
77.5°	30.6	29.7	30.0	29.5
80°	22.2	22.6	22.2	22.0
82.5°	16.4	16.1	16.2	16.1
85°	10.5	10.1	10.3	10.1
87.5°	4.3	4.5	4.5	4.1
90°	0.0	0.0	0.0	0.0

(END OF REPORT)