

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: P242805

Luminaire Tested: **S125DR-S375D830-X4F0-XX-UDD-A-W**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P242805
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1802-639-22)
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S125DR-S375D830-X4F0-XX-UDD-A-W
Description: DEFINE 5 DIRECT RECESSED WITH ASYMMETRIC FLUSH DIFFUSER
STANDARD LIGHT ENGINE
Light Source: (92) 3000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1368.0 lumens
Efficiency: N/A
Efficacy: 117.9 lumens/watt
Spacing Criteria (0/90/45): 1.43 / 1.23 / 1.53
Luminous Opening: Rectangular (W 3.88' x L: 0.39' x H: 0')
CIE Type: Direct

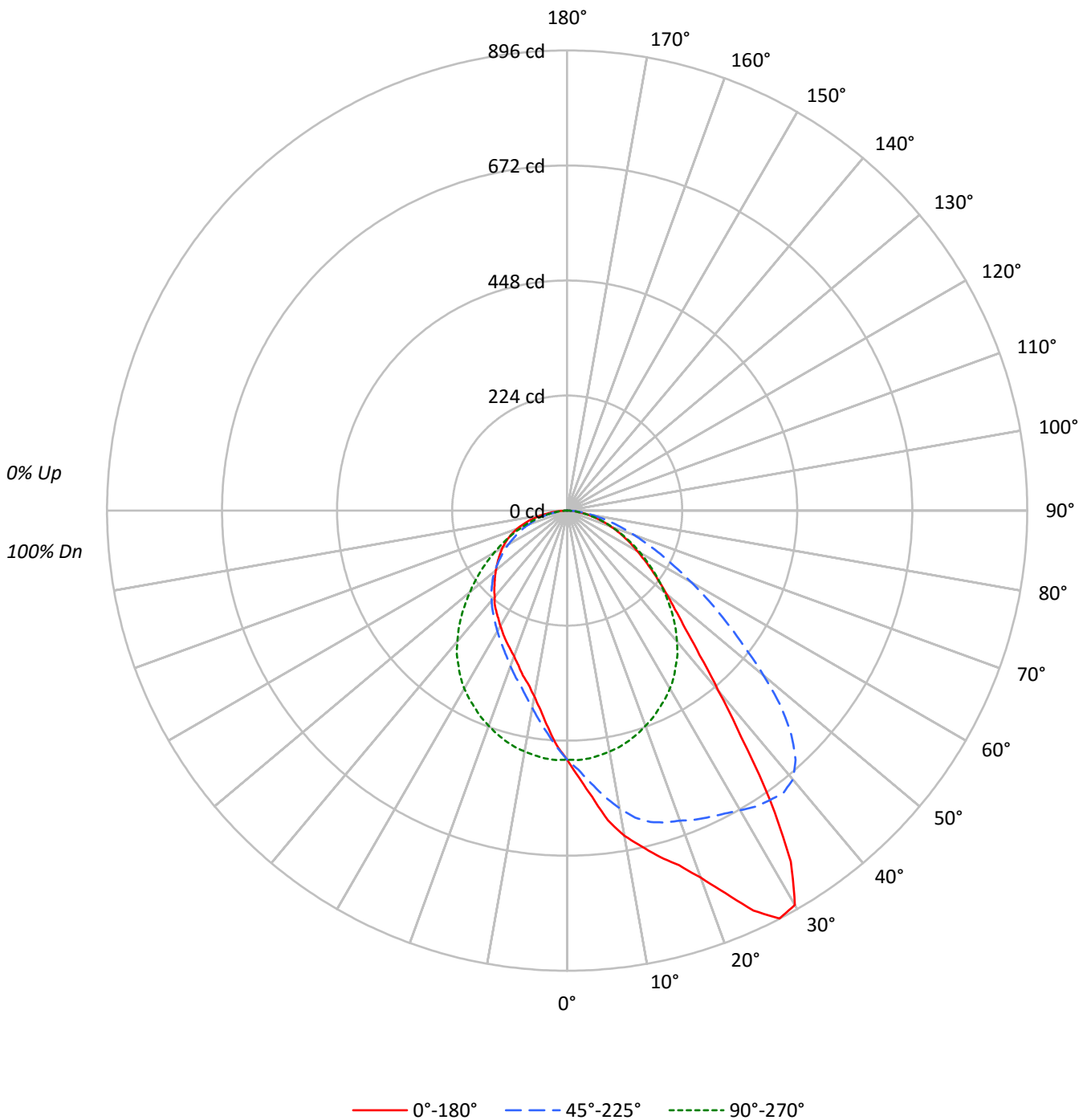
Input Watts (W): 11.6
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P242805

CATALOG NUMBER: S125DR-S375D830-X4F0-XX-UDD-A-W

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	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	98	90	84	79	87	82	78	84	80	76	81	77	74	72																												
3	92	82	74	68	89	80	73	67	77	71	66	74	69	65	72	67	64	61																												
4	84	73	64	58	82	71	63	57	69	62	57	67	61	56	64	59	55	53																												
5	78	65	56	50	76	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	41																												
7	67	53	45	39	65	53	45	39	51	44	39	50	43	38	48	42	38	36																												
8	62	49	41	35	61	48	40	35	47	40	34	46	39	34	44	39	34	32																												
9	58	45	37	31	57	44	37	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°	3446	3446	3446
5°	3990	3457	3027
10°	4642	3439	2652
15°	5138	3414	2447
20°	5752	3374	2281
25°	6738	3329	2201
30°	7278	3284	2131
35°	5984	3201	2085
40°	4253	3085	2035
45°	3268	2929	2006
50°	2790	2734	2002
55°	2483	2544	2020
60°	2240	2337	2071
65°	2069	2127	2124
70°	1881	1912	2155
75°	1661	1683	2136
80°	1400	1371	1952
85°	1109	987	1574



TEST NUMBER: P242805

CATALOG NUMBER: S125DR-S375D830-X4F0-XX-UDD-A-W

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	46.7	3.4
10°-20°	139.0	10.2
20°-30°	225.7	16.5
30°-40°	275.9	20.2
40°-50°	250.3	18.3
50°-60°	199.3	14.6
60°-70°	138.8	10.1
70°-80°	74.0	5.4
80°-90°	18.3	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°	411.4	30.1
0°-40°	687.2	50.2
0°-60°	1136.9	83.1
0°-90°	1368.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1368.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	485	485	485	485	485	
5°	559	533	485	436	424	56
15°	698	628	464	352	332	200
25°	859	658	424	295	281	394
35°	690	688	369	250	240	423
45°	325	618	291	207	200	259
55°	200	378	205	158	163	180
65°	123	201	126	106	126	122
75°	60	89	61	56	78	65
85°	14	18	12	13	19	16
90°	0	0	0	0	0	



TEST NUMBER: P242805

CATALOG NUMBER: S125DR-S375D830-X4F0-XX-UDD-A-W

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	484.8	484.8	484.8	484.8	484.8	484.8	484.8	484.8	484.8	484.8	484.8
2.5°	519.7	518.9	518.1	516.5	517.7	514.2	512.5	509.7	506.2	504.9	503.5
5°	559.3	560.3	561.3	557.0	557.4	554.5	547.9	542.6	538.3	532.7	528.8
7.5°	608.2	605.1	605.3	602.7	597.9	594.0	587.6	578.8	570.8	561.7	553.9
10°	643.2	643.4	641.6	638.3	633.1	629.4	620.4	611.7	601.2	588.9	580.0
12.5°	669.5	670.6	668.1	663.4	661.5	652.0	645.5	634.8	621.8	612.5	597.9
15°	698.3	696.1	694.4	688.9	684.6	675.9	664.6	653.9	640.3	627.8	615.2
17.5°	723.9	725.7	723.0	718.9	706.2	696.1	682.1	668.5	652.3	636.6	622.0
20°	760.5	762.1	757.4	748.5	732.5	722.4	702.5	683.5	664.0	642.4	625.9
22.5°	806.2	804.1	797.3	782.7	769.3	748.5	726.5	702.5	676.7	651.6	628.4
25°	859.2	850.6	846.7	830.0	811.7	784.4	754.7	721.0	690.5	658.2	630.2
27.5°	895.5	892.0	886.4	872.8	851.8	820.8	785.8	745.5	704.5	665.0	629.8
30°	886.8	887.2	887.6	883.9	871.6	849.6	814.8	770.6	719.5	673.7	631.3
32.5°	810.3	819.5	828.4	839.9	847.3	847.5	829.0	790.1	737.2	683.5	630.4
35°	689.7	692.0	715.2	738.3	769.5	793.8	810.1	792.4	748.1	688.3	629.8
37.5°	557.6	568.9	586.4	612.3	659.3	697.5	747.7	765.0	744.2	692.2	629.6
40°	458.4	468.7	479.2	505.8	543.8	592.8	651.8	702.3	714.0	683.5	623.4
42.5°	381.9	389.5	401.4	419.7	450.0	492.0	547.7	617.5	665.2	658.4	610.5
45°	325.1	330.2	339.3	355.1	378.2	412.1	461.9	533.9	596.7	617.5	588.5
47.5°	284.8	285.0	292.4	303.7	321.2	352.5	389.7	449.0	516.7	564.6	557.8
50°	252.3	251.2	256.8	266.3	279.4	298.6	333.7	378.8	443.2	499.4	515.0
52.5°	224.3	224.7	227.6	233.9	244.4	260.1	284.2	323.7	376.3	434.4	467.3
55°	200.4	199.6	203.5	208.2	216.3	227.0	245.9	277.0	321.6	378.4	416.7
57.5°	177.4	179.6	181.3	184.6	191.6	199.0	215.8	239.7	276.5	327.0	367.5
60°	157.6	159.9	161.1	164.4	169.8	175.9	188.3	206.8	236.6	278.6	318.7
62.5°	139.9	141.6	141.8	144.6	148.8	154.7	163.8	178.6	200.6	236.0	275.1
65°	123.0	123.0	123.9	127.0	129.0	134.4	141.8	153.1	172.0	200.6	234.2
67.5°	106.6	107.6	107.4	108.8	110.7	115.2	120.8	130.2	145.3	166.9	194.6
70°	90.5	91.4	91.2	92.2	94.2	96.9	101.2	110.1	120.2	138.1	161.1
72.5°	76.1	76.3	75.7	77.2	78.2	80.5	85.4	89.1	98.4	112.8	130.7
75°	60.5	60.9	61.3	62.1	63.4	64.6	67.1	71.8	78.0	89.3	101.4
77.5°	48.1	47.1	48.4	48.1	48.8	49.8	52.1	54.7	60.1	67.7	77.8
80°	34.2	34.4	34.4	34.6	35.6	36.2	38.1	39.9	43.8	49.2	55.8
82.5°	22.6	23.3	22.8	23.3	24.1	24.5	25.3	26.7	28.6	32.5	36.8
85°	13.6	12.6	13.0	13.4	13.4	13.6	14.4	15.0	16.3	17.9	19.8
87.5°	4.9	5.3	5.6	5.6	5.8	5.8	6.6	6.6	7.2	7.8	8.6
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: P242805

CATALOG NUMBER: S125DR-S375D830-X4F0-XX-UDD-A-W

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	484.8	484.8	484.8	484.8	484.8	484.8	484.8	484.8	484.8	484.8	484.8
2.5°	502.3	500.8	499.2	496.3	492.8	490.9	488.1	486.2	482.5	479.4	476.1
5°	524.1	518.7	513.8	507.4	500.4	495.9	490.5	484.6	478.4	472.0	465.0
7.5°	545.9	537.0	527.4	517.3	507.4	498.1	489.5	480.7	472.6	462.5	454.1
10°	567.9	556.0	543.2	528.2	513.6	500.8	487.9	476.5	465.0	452.7	441.8
12.5°	589.9	573.0	553.7	536.8	518.5	502.5	486.6	471.4	456.2	442.2	429.0
15°	597.9	583.9	567.3	543.8	524.1	502.9	482.7	464.0	446.5	431.3	415.2
17.5°	605.8	587.9	570.2	547.5	521.8	499.0	476.1	455.8	436.4	417.3	402.7
20°	607.6	589.1	570.4	548.3	521.8	494.6	471.8	446.1	424.9	404.9	386.0
22.5°	607.0	585.4	564.6	541.8	516.0	491.6	462.8	436.4	413.0	393.4	373.5
25°	602.5	580.0	554.5	531.7	506.2	479.6	451.6	424.5	401.0	378.6	359.0
27.5°	599.8	571.4	543.4	517.1	492.6	468.1	440.9	413.0	387.2	364.4	346.3
30°	593.8	561.9	529.4	501.6	476.3	452.7	427.4	400.2	373.0	350.8	331.1
32.5°	588.5	550.0	515.2	484.4	457.2	434.4	411.5	386.0	359.5	336.8	317.1
35°	581.3	538.3	499.0	464.8	436.2	412.5	393.0	368.9	344.4	322.6	303.7
37.5°	572.8	523.0	481.5	445.9	414.8	390.1	371.6	352.9	328.4	307.0	290.1
40°	562.5	506.6	461.9	425.3	392.8	366.9	350.0	332.5	313.0	293.4	275.3
42.5°	549.6	491.8	442.2	402.1	370.0	344.9	327.0	312.8	296.1	278.2	261.7
45°	533.1	473.2	420.6	378.2	345.7	320.8	302.5	291.4	278.4	261.1	246.9
47.5°	511.3	452.3	397.9	354.1	320.6	297.5	280.0	269.1	259.7	246.1	232.7
50°	480.2	428.2	373.0	329.6	296.1	272.8	257.0	247.3	239.5	229.6	218.7
52.5°	445.5	397.9	348.6	305.8	272.6	249.8	234.4	226.1	220.0	213.6	202.9
55°	408.2	367.1	320.2	279.4	248.8	226.3	212.8	205.3	200.0	194.6	188.1
57.5°	368.1	334.8	291.8	253.7	225.3	204.3	191.6	183.9	179.6	176.7	172.6
60°	325.3	297.7	261.9	228.0	200.4	182.3	170.0	164.4	160.9	158.6	155.8
62.5°	285.6	264.2	231.7	201.4	178.2	161.3	150.6	145.3	142.0	141.2	138.9
65°	246.7	229.2	201.8	176.1	155.6	140.9	131.7	126.5	124.5	123.2	123.5
67.5°	207.6	196.3	173.5	150.8	133.9	121.0	113.4	109.5	108.4	106.6	106.6
70°	172.4	164.4	145.9	126.7	112.1	102.7	96.1	92.0	90.9	90.1	89.9
72.5°	141.4	134.6	119.1	104.7	92.0	83.9	78.8	76.7	74.9	74.5	74.5
75°	110.9	107.0	94.2	82.1	73.0	67.3	63.6	61.3	60.1	59.9	60.1
77.5°	83.7	80.0	71.2	62.1	56.2	51.6	48.1	47.5	45.9	46.1	45.7
80°	59.3	57.0	51.9	45.1	40.3	36.6	35.0	33.5	33.1	32.5	33.1
82.5°	38.9	36.4	33.3	29.6	25.9	24.1	22.4	22.2	22.0	21.8	21.8
85°	21.2	21.4	19.3	16.0	14.4	13.2	12.1	12.1	11.9	11.7	11.9
87.5°	9.1	8.6	7.8	7.2	6.2	5.6	5.3	5.6	4.9	4.7	4.9
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: P242805

CATALOG NUMBER: S125DR-S375D830-X4F0-XX-UDD-A-W

CANDELA DISTRIBUTION (continued):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	484.8	484.8	484.8	484.8	484.8	484.8	484.8	484.8	484.8	484.8	484.8
2.5°	474.3	472.0	470.2	466.0	463.8	460.7	458.2	460.9	458.0	459.3	457.4
5°	461.5	455.8	451.6	445.7	440.5	435.8	432.3	431.7	430.0	429.2	426.7
7.5°	446.3	439.7	432.9	425.5	419.3	412.8	408.8	405.1	402.9	400.0	397.7
10°	433.1	423.5	415.2	405.8	397.5	390.3	384.6	381.7	379.0	375.1	373.7
12.5°	416.9	406.8	396.3	386.0	378.2	370.0	365.2	360.5	358.8	354.3	354.1
15°	404.5	389.5	379.6	369.3	358.4	351.8	347.7	343.0	340.9	337.9	335.6
17.5°	389.3	375.7	363.4	352.9	343.0	337.6	332.3	329.0	325.5	323.2	319.5
20°	372.4	359.7	347.3	336.0	328.8	322.4	318.3	315.2	311.5	310.5	306.8
22.5°	358.2	343.8	332.1	323.0	315.0	307.6	303.1	301.2	299.0	295.3	295.3
25°	342.6	328.0	317.9	308.4	301.4	294.9	291.8	289.1	286.6	284.4	283.5
27.5°	329.4	316.5	304.1	295.5	289.5	283.3	280.7	277.2	275.3	273.5	271.0
30°	315.4	302.1	291.6	283.3	276.7	271.4	268.5	266.3	264.6	263.0	261.7
32.5°	301.0	288.9	278.8	270.8	264.2	260.5	258.0	256.6	254.7	252.7	251.0
35°	288.7	275.1	265.2	258.2	253.1	250.0	247.1	245.7	243.6	243.6	242.0
37.5°	274.1	262.1	253.3	246.9	242.4	239.5	236.2	235.4	233.9	233.1	232.5
40°	261.3	250.4	242.2	235.8	230.9	228.6	226.1	224.5	223.7	222.6	222.2
42.5°	248.1	237.9	230.0	224.3	220.2	218.3	216.0	215.0	213.2	211.7	211.5
45°	234.8	224.7	217.5	212.8	209.1	206.8	205.3	202.9	202.1	200.4	200.2
47.5°	222.4	212.5	205.3	201.4	198.1	196.5	194.2	191.6	190.5	189.5	189.3
50°	208.2	199.4	192.8	189.1	186.0	183.3	181.1	179.4	178.8	178.8	179.2
52.5°	193.8	186.6	181.3	176.5	173.7	170.8	168.7	167.9	166.9	168.1	168.9
55°	179.8	172.2	168.1	163.8	160.9	157.6	156.6	156.2	155.6	157.2	158.0
57.5°	164.8	159.7	154.7	150.2	147.7	145.7	144.0	143.8	145.1	145.5	147.9
60°	150.6	144.4	140.1	136.8	133.7	132.5	132.1	131.7	132.5	134.8	138.3
62.5°	135.0	130.2	125.5	123.2	121.2	118.9	118.9	119.3	121.2	123.9	127.4
65°	119.8	115.4	112.3	109.5	107.6	106.4	106.8	107.6	109.5	113.0	116.9
67.5°	104.1	101.2	98.4	95.7	93.8	94.0	94.2	95.3	97.5	101.6	105.3
70°	89.1	85.8	83.5	82.5	81.1	80.2	81.5	83.5	85.4	89.1	92.2
72.5°	74.1	71.4	69.8	69.1	68.7	68.1	68.3	70.6	73.3	77.0	80.7
75°	59.3	58.2	57.0	56.2	55.6	56.0	56.4	58.4	60.5	64.4	68.5
77.5°	45.9	44.6	43.8	43.6	43.2	43.4	44.4	46.1	48.1	51.0	54.3
80°	32.7	32.3	31.9	31.7	31.7	31.9	33.5	34.6	36.4	39.1	41.6
82.5°	21.6	21.4	21.4	21.4	21.6	21.6	22.4	23.9	25.3	27.2	29.2
85°	12.6	12.1	12.8	13.0	12.6	13.2	13.6	14.4	15.0	16.0	17.1
87.5°	5.1	5.6	5.3	5.6	5.6	6.0	5.8	6.6	7.0	7.4	7.2
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: P242805

CATALOG NUMBER: S125DR-S375D830-X4F0-XX-UDD-A-W

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°
0°	484.8	484.8	484.8	484.8
2.5°	456.2	457.6	456.4	458.0
5°	425.7	423.9	425.1	424.3
7.5°	397.5	395.9	393.4	392.6
10°	371.4	369.1	368.9	367.5
12.5°	352.3	350.2	347.3	346.9
15°	334.4	332.7	331.3	332.5
17.5°	319.1	317.7	317.3	316.0
20°	304.9	303.9	304.3	301.6
22.5°	293.6	291.4	290.9	290.9
25°	281.7	280.7	279.6	280.7
27.5°	271.2	270.2	269.7	270.0
30°	261.7	259.7	259.9	259.7
32.5°	251.4	250.2	249.8	249.4
35°	241.4	241.4	240.3	240.3
37.5°	232.1	231.9	231.3	231.7
40°	221.4	221.2	220.6	219.3
42.5°	211.1	210.3	210.1	209.9
45°	200.2	200.2	199.8	199.6
47.5°	189.5	189.9	190.7	190.5
50°	180.0	180.2	180.9	181.1
52.5°	169.5	171.0	171.8	171.6
55°	159.9	161.3	162.8	163.0
57.5°	150.2	152.1	153.5	153.9
60°	140.3	143.0	144.9	145.7
62.5°	130.9	133.9	135.8	135.8
65°	120.4	123.5	125.1	126.3
67.5°	109.5	112.5	114.2	115.2
70°	97.3	100.4	102.9	103.7
72.5°	85.4	88.1	89.9	90.9
75°	71.2	74.9	76.7	77.8
77.5°	57.6	61.3	62.3	63.0
80°	44.0	46.1	47.5	47.7
82.5°	31.3	32.9	33.1	33.7
85°	18.5	19.3	19.5	19.3
87.5°	7.6	7.4	7.4	7.8
90°	0.0	0.0	0.0	0.0

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