

Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269



Scaled data based on original data using
LM-79-2024 Approved Method: Electrical and Photometric Measurements of Solid-
State Lighting Products

Test Report Prepared for
Cooper Lighting Solutions

Brand: NEO-RAY

Report Number: P242800

Luminaire Tested: S125DRP-S375D927-X4F0-XX-UDD-A-W

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-2024
Report Number: P242800
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
Product Line: NEO-RAY
Catalog Number: S125DRP-S375D927-X4F0-XX-UDD-A-W
Description: DEFINE 5 DIRECT RECESSED WITH ASYMMETRIC FLUSH DIFFUSER
STANDARD LIGHT ENGINE
Light Source: (92) 2700K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

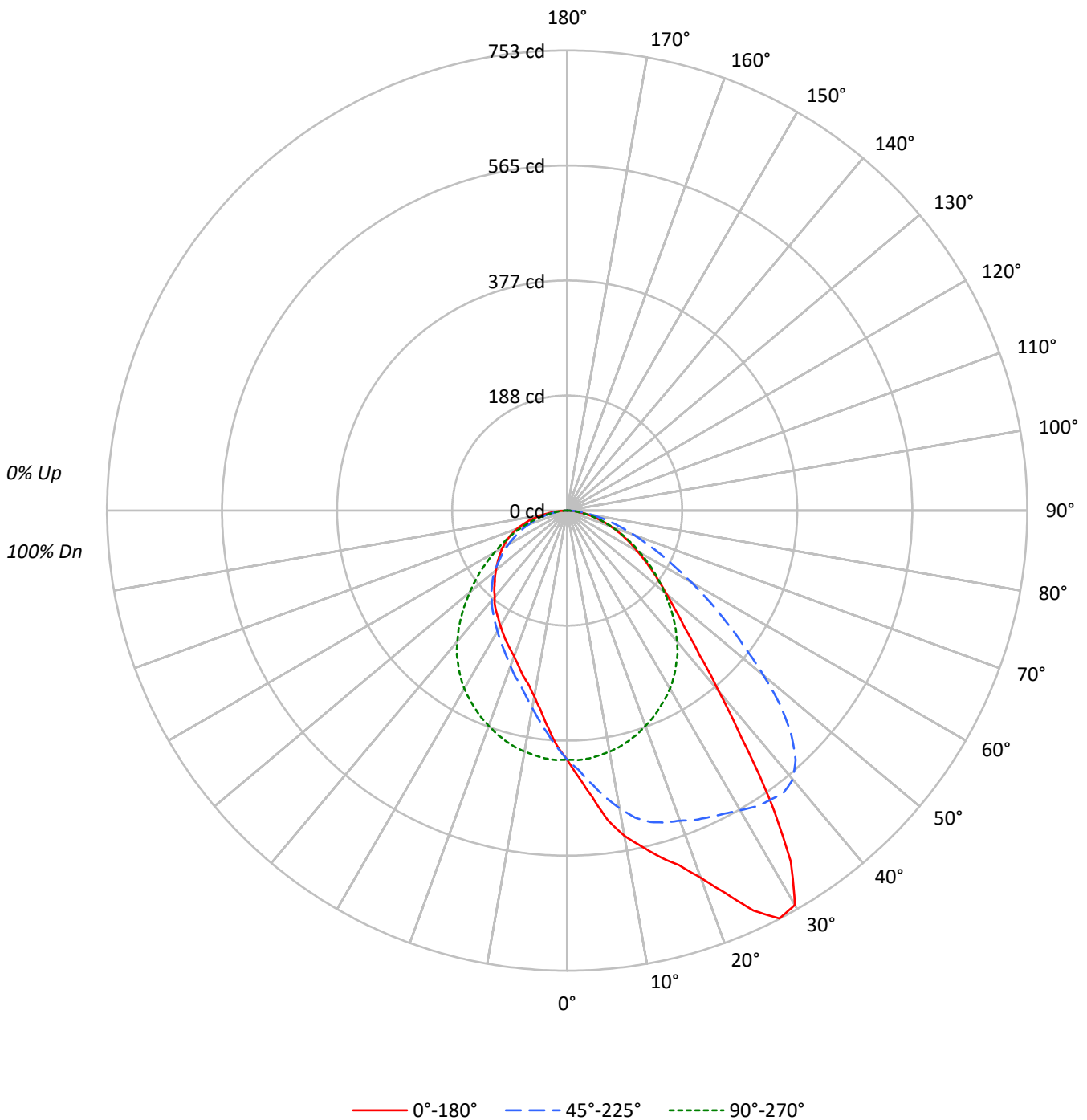
Lumens per Lamp: N/A
Luminaire Lumens: 1149.8 lumens
Efficiency: N/A
Efficacy: 99.1 lumens/watt
Spacing Criteria (0/90/45): 1.43 / 1.23 / 1.53
Luminous Opening: Rectangular (W 3.88' x L: 0.39' x H: 0')
CIE Type: Direct

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: 24 FT

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CATALOG NUMBER: S125DRP-S375D927-X4F0-XX-UDD-A-W

Luminous Intensity Polar Plot



TEST NUMBER: P242800

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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	0		
RCR																										
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100					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°	45°	90°	135°	180°
0°	2896	2896	2896	2896	2896
5°	3353	3194	2906	2613	2544
10°	3902	3572	2890	2368	2229
15°	4318	3882	2870	2176	2057
20°	4835	4084	2836	2050	1917
25°	5664	4338	2798	1943	1850
30°	6117	4647	2761	1872	1791
35°	5030	5019	2691	1823	1753
40°	3575	5330	2593	1782	1710
45°	2746	5217	2462	1747	1686
50°	2344	4641	2299	1704	1683
55°	2087	3940	2139	1642	1698
60°	1883	3329	1964	1584	1740
65°	1739	2835	1789	1503	1786
70°	1581	2411	1606	1401	1812
75°	1395	2062	1414	1291	1796
80°	1175	1690	1154	1097	1641
85°	930	1223	832	905	1329

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°
 Vertical Angle: 45°
 Luminance: 5217 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	39.2	3.4
10°-20°	116.8	10.2
20°-30°	189.7	16.5
30°-40°	231.9	20.2
40°-50°	210.4	18.3
50°-60°	167.5	14.6
60°-70°	116.7	10.1
70°-80°	62.2	5.4
80°-90°	15.4	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°	345.7	30.1
0°-40°	577.6	50.2
0°-60°	955.5	83.1
0°-90°	1149.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1149.8	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	407	407	407	407	407	
5°	470	448	407	366	357	47
15°	587	528	390	296	280	168
25°	722	553	357	248	236	331
35°	580	578	310	210	202	356
45°	273	519	245	174	168	217
55°	168	318	173	132	137	151
65°	103	169	106	89	106	103
75°	51	75	52	47	65	55
85°	11	15	10	11	16	13
90°	0	0	0	0	0	



TEST NUMBER: P242800

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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	407.4	407.4	407.4	407.4	407.4	407.4	407.4	407.4	407.4	407.4	407.4
2.5°	436.8	436.1	435.4	434.1	435.1	432.2	430.8	428.4	425.4	424.4	423.2
5°	470.0	470.9	471.8	468.1	468.5	466.1	460.5	456.0	452.4	447.7	444.4
7.5°	511.2	508.6	508.8	506.5	502.5	499.3	493.9	486.5	479.7	472.1	465.5
10°	540.6	540.8	539.2	536.4	532.1	529.0	521.4	514.1	505.3	494.9	487.5
12.5°	562.7	563.6	561.5	557.5	556.0	548.0	542.5	533.5	522.6	514.8	502.5
15°	586.9	585.0	583.7	579.0	575.4	568.1	558.6	549.6	538.2	527.6	517.1
17.5°	608.4	609.9	607.7	604.2	593.5	585.0	573.3	561.9	548.2	535.1	522.8
20°	639.2	640.5	636.6	629.1	615.6	607.2	590.4	574.5	558.1	539.9	526.1
22.5°	677.6	675.8	670.1	657.8	646.6	629.1	610.6	590.4	568.8	547.7	528.1
25°	722.2	714.9	711.6	697.6	682.2	659.2	634.3	606.0	580.4	553.2	529.7
27.5°	752.6	749.7	745.0	733.6	715.9	689.8	660.4	626.5	592.1	558.9	529.4
30°	745.3	745.7	746.0	742.9	732.6	714.0	684.8	647.6	604.8	566.2	530.6
32.5°	681.0	688.8	696.2	705.9	712.1	712.3	696.8	664.1	619.6	574.5	529.9
35°	579.7	581.6	601.1	620.5	646.8	667.2	680.8	666.0	628.8	578.5	529.4
37.5°	468.7	478.2	492.9	514.7	554.1	586.2	628.4	643.0	625.5	581.8	529.2
40°	385.3	393.9	402.8	425.1	457.1	498.2	547.9	590.2	600.1	574.5	524.0
42.5°	321.0	327.4	337.4	352.8	378.2	413.5	460.4	519.0	559.1	553.4	513.1
45°	273.2	277.6	285.2	298.5	317.9	346.4	388.2	448.8	501.5	519.0	494.6
47.5°	239.3	239.5	245.7	255.3	270.0	296.2	327.5	377.3	434.2	474.5	468.8
50°	212.0	211.2	215.8	223.8	234.8	250.9	280.5	318.4	372.5	419.7	432.9
52.5°	188.5	188.8	191.3	196.6	205.4	218.6	238.8	272.0	316.3	365.1	392.7
55°	168.4	167.7	171.0	175.0	181.8	190.7	206.7	232.8	270.3	318.0	350.2
57.5°	149.1	151.0	152.4	155.1	161.0	167.2	181.4	201.5	232.4	274.8	308.9
60°	132.5	134.4	135.4	138.2	142.7	147.9	158.2	173.8	198.9	234.2	267.9
62.5°	117.6	119.0	119.2	121.6	125.0	130.0	137.7	150.1	168.6	198.4	231.2
65°	103.4	103.4	104.1	106.7	108.4	112.9	119.2	128.7	144.6	168.6	196.8
67.5°	89.6	90.4	90.3	91.5	93.0	96.8	101.5	109.5	122.1	140.2	163.6
70°	76.1	76.8	76.6	77.5	79.2	81.5	85.1	92.5	101.0	116.0	135.4
72.5°	64.0	64.2	63.6	64.9	65.7	67.6	71.8	74.9	82.7	94.8	109.8
75°	50.8	51.2	51.5	52.2	53.3	54.3	56.4	60.4	65.5	75.1	85.3
77.5°	40.5	39.6	40.6	40.5	41.0	41.9	43.8	46.0	50.5	56.9	65.4
80°	28.7	28.9	28.9	29.1	29.9	30.4	32.0	33.5	36.8	41.3	46.9
82.5°	19.0	19.5	19.2	19.5	20.2	20.6	21.3	22.5	24.0	27.3	31.0
85°	11.4	10.5	10.9	11.2	11.2	11.4	12.1	12.6	13.7	15.0	16.6
87.5°	4.2	4.5	4.7	4.7	4.8	4.8	5.5	5.5	6.1	6.6	7.3
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	407.4	407.4	407.4	407.4	407.4	407.4	407.4	407.4	407.4	407.4	407.4
2.5°	422.1	420.9	419.5	417.1	414.2	412.6	410.2	408.6	405.5	402.9	400.2
5°	440.5	436.0	431.8	426.5	420.6	416.8	412.3	407.3	402.1	396.7	390.8
7.5°	458.8	451.4	443.2	434.8	426.5	418.7	411.4	404.0	397.2	388.8	381.7
10°	477.3	467.3	456.5	443.9	431.6	420.9	410.0	400.5	390.8	380.5	371.3
12.5°	495.8	481.6	465.4	451.2	435.8	422.3	409.0	396.2	383.4	371.6	360.6
15°	502.5	490.8	476.8	457.1	440.5	422.7	405.7	390.0	375.3	362.5	349.0
17.5°	509.1	494.1	479.2	460.2	438.6	419.4	400.2	383.1	366.8	350.7	338.4
20°	510.7	495.1	479.4	460.9	438.6	415.7	396.5	374.9	357.1	340.3	324.4
22.5°	510.2	492.0	474.5	455.3	433.7	413.1	388.9	366.8	347.1	330.7	313.9
25°	506.4	487.5	466.1	446.9	425.4	403.1	379.6	356.8	337.0	318.2	301.8
27.5°	504.1	480.2	456.7	434.6	414.0	393.4	370.6	347.1	325.5	306.3	291.0
30°	499.1	472.3	445.0	421.6	400.3	380.5	359.2	336.4	313.5	294.9	278.3
32.5°	494.6	462.3	433.0	407.1	384.3	365.1	345.9	324.4	302.1	283.1	266.5
35°	488.5	452.4	419.4	390.7	366.6	346.7	330.3	310.1	289.5	271.2	255.3
37.5°	481.4	439.6	404.7	374.7	348.6	327.9	312.3	296.6	276.0	258.0	243.8
40°	472.8	425.8	388.2	357.5	330.1	308.3	294.2	279.5	263.0	246.6	231.4
42.5°	461.9	413.3	371.6	337.9	310.9	289.8	274.8	262.9	248.9	233.8	220.0
45°	448.1	397.7	353.5	317.9	290.5	269.6	254.2	244.9	234.0	219.5	207.5
47.5°	429.7	380.1	334.5	297.6	269.4	250.1	235.4	226.2	218.2	206.8	195.6
50°	403.6	359.9	313.5	277.0	248.9	229.3	216.0	207.9	201.3	193.0	183.8
52.5°	374.4	334.5	293.0	257.0	229.1	209.9	197.0	190.1	184.9	179.5	170.5
55°	343.1	308.5	269.1	234.8	209.1	190.2	178.8	172.6	168.1	163.6	158.1
57.5°	309.4	281.4	245.2	213.2	189.4	171.7	161.0	154.6	151.0	148.6	145.1
60°	273.4	250.2	220.1	191.6	168.4	153.2	142.8	138.2	135.2	133.3	130.9
62.5°	240.0	222.0	194.7	169.3	149.8	135.6	126.6	122.1	119.3	118.6	116.7
65°	207.3	192.6	169.6	148.0	130.7	118.5	110.7	106.4	104.6	103.6	103.8
67.5°	174.5	165.0	145.8	126.8	112.6	101.7	95.3	92.0	91.1	89.6	89.6
70°	144.9	138.2	122.6	106.5	94.2	86.3	80.8	77.3	76.4	75.7	75.6
72.5°	118.8	113.1	100.1	88.0	77.3	70.6	66.2	64.5	62.9	62.6	62.6
75°	93.2	89.9	79.2	69.0	61.4	56.5	53.4	51.5	50.5	50.3	50.5
77.5°	70.4	67.3	59.8	52.2	47.2	43.4	40.5	39.9	38.6	38.7	38.4
80°	49.8	47.9	43.6	37.9	33.9	30.8	29.4	28.2	27.8	27.3	27.8
82.5°	32.7	30.6	28.0	24.9	21.8	20.2	18.8	18.7	18.5	18.3	18.3
85°	17.8	18.0	16.3	13.5	12.1	11.1	10.2	10.2	10.0	9.9	10.0
87.5°	7.6	7.3	6.6	6.1	5.2	4.7	4.5	4.7	4.2	4.0	4.2
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



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CANDELA DISTRIBUTION (continued):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	407.4	407.4	407.4	407.4	407.4	407.4	407.4	407.4	407.4	407.4	407.4
2.5°	398.6	396.7	395.2	391.7	389.8	387.2	385.1	387.4	385.0	386.0	384.4
5°	387.9	383.1	379.6	374.6	370.3	366.3	363.3	362.8	361.4	360.7	358.7
7.5°	375.1	369.6	363.9	357.6	352.4	346.9	343.6	340.5	338.6	336.2	334.3
10°	364.0	355.9	349.0	341.0	334.1	328.1	323.2	320.8	318.5	315.3	314.0
12.5°	350.4	341.9	333.1	324.4	317.9	310.9	307.0	303.0	301.6	297.8	297.6
15°	340.0	327.4	319.1	310.4	301.3	295.7	292.3	288.3	286.6	284.0	282.1
17.5°	327.2	315.8	305.4	296.6	288.3	283.8	279.3	276.5	273.6	271.7	268.6
20°	313.0	302.3	291.9	282.4	276.3	271.0	267.5	264.9	261.8	261.0	257.8
22.5°	301.1	289.0	279.1	271.5	264.8	258.5	254.7	253.2	251.3	248.2	248.2
25°	287.9	275.7	267.2	259.2	253.3	247.8	245.2	243.0	240.9	239.0	238.3
27.5°	276.9	266.0	255.6	248.3	243.3	238.1	235.9	232.9	231.4	229.8	227.8
30°	265.1	253.9	245.0	238.1	232.6	228.1	225.7	223.8	222.4	221.0	220.0
32.5°	253.0	242.8	234.3	227.6	222.0	218.9	216.9	215.6	214.1	212.4	211.0
35°	242.6	231.2	222.9	217.0	212.7	210.1	207.7	206.5	204.8	204.8	203.4
37.5°	230.3	220.3	212.9	207.5	203.7	201.3	198.5	197.8	196.6	195.9	195.4
40°	219.6	210.5	203.5	198.2	194.0	192.1	190.1	188.7	188.0	187.1	186.8
42.5°	208.6	199.9	193.3	188.5	185.0	183.5	181.6	180.7	179.2	177.9	177.8
45°	197.3	188.8	182.8	178.8	175.7	173.8	172.6	170.5	169.8	168.4	168.3
47.5°	186.9	178.6	172.6	169.3	166.5	165.2	163.3	161.0	160.1	159.3	159.1
50°	175.0	167.6	162.0	158.9	156.3	154.1	152.2	150.8	150.3	150.3	150.6
52.5°	162.9	156.9	152.4	148.4	146.0	143.5	141.8	141.1	140.2	141.3	142.0
55°	151.1	144.7	141.3	137.7	135.2	132.5	131.6	131.3	130.7	132.1	132.8
57.5°	138.5	134.2	130.0	126.2	124.2	122.4	121.1	120.9	121.9	122.3	124.3
60°	126.6	121.4	117.8	115.0	112.4	111.4	111.0	110.7	111.4	113.3	116.2
62.5°	113.4	109.5	105.5	103.6	101.9	100.0	100.0	100.3	101.9	104.1	107.0
65°	100.6	97.0	94.4	92.0	90.4	89.4	89.8	90.4	92.0	94.9	98.2
67.5°	87.5	85.1	82.7	80.4	78.9	79.0	79.2	80.1	82.0	85.4	88.5
70°	74.9	72.1	70.2	69.3	68.1	67.4	68.5	70.2	71.8	74.9	77.5
72.5°	62.3	60.0	58.6	58.1	57.8	57.2	57.4	59.3	61.6	64.7	67.8
75°	49.8	48.9	47.9	47.2	46.7	47.0	47.4	49.1	50.8	54.1	57.6
77.5°	38.6	37.5	36.8	36.7	36.3	36.5	37.4	38.7	40.5	42.9	45.7
80°	27.5	27.2	26.8	26.6	26.6	26.8	28.2	29.1	30.6	32.9	34.9
82.5°	18.2	18.0	18.0	18.0	18.2	18.2	18.8	20.1	21.3	22.8	24.6
85°	10.5	10.2	10.7	10.9	10.5	11.1	11.4	12.1	12.6	13.5	14.4
87.5°	4.3	4.7	4.5	4.7	4.7	5.0	4.8	5.5	5.9	6.2	6.1
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: P242800

CATALOG NUMBER: S125DRP-S375D927-X4F0-XX-UDD-A-W

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°
0°	407.4	407.4	407.4	407.4
2.5°	383.4	384.6	383.6	385.0
5°	357.8	356.2	357.3	356.6
7.5°	334.1	332.7	330.7	330.0
10°	312.1	310.2	310.1	308.9
12.5°	296.1	294.3	291.9	291.6
15°	281.0	279.6	278.4	279.5
17.5°	268.2	267.0	266.7	265.6
20°	256.3	255.4	255.8	253.5
22.5°	246.8	244.9	244.5	244.5
25°	236.7	235.9	235.0	235.9
27.5°	227.9	227.1	226.7	226.9
30°	220.0	218.2	218.4	218.2
32.5°	211.3	210.3	209.9	209.6
35°	202.9	202.9	202.0	202.0
37.5°	195.1	194.9	194.4	194.7
40°	186.1	185.9	185.4	184.3
42.5°	177.4	176.7	176.6	176.4
45°	168.3	168.3	167.9	167.7
47.5°	159.3	159.6	160.3	160.1
50°	151.3	151.5	152.0	152.2
52.5°	142.5	143.7	144.4	144.2
55°	134.4	135.6	136.8	137.0
57.5°	126.2	127.8	129.0	129.4
60°	117.9	120.2	121.7	122.4
62.5°	110.0	112.6	114.1	114.1
65°	101.2	103.8	105.1	106.2
67.5°	92.0	94.6	96.0	96.8
70°	81.8	84.4	86.5	87.2
72.5°	71.8	74.0	75.6	76.4
75°	59.8	62.9	64.5	65.4
77.5°	48.4	51.5	52.4	52.9
80°	37.0	38.7	39.9	40.1
82.5°	26.3	27.7	27.8	28.4
85°	15.6	16.3	16.4	16.3
87.5°	6.4	6.2	6.2	6.6
90°	0.0	0.0	0.0	0.0



TEST NUMBER: P242800
 CATALOG NUMBER: S125DRP-S375D927-X4F0-XX-UDD-A-W

CIE UGR TABLE:

Reflectances:											
Ceiling		0.7	0.7	0.5	0.5	0.3	0.7	0.7	0.5	0.5	0.3
Wall		0.5	0.3	0.5	0.3	0.3	0.5	0.3	0.5	0.3	0.3
Reference plane		0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Room dimensions		Viewed crosswise					Viewed endwise				
X=2H	Y=2H	14.35	15.92	14.71	16.23	16.55	14.32	15.89	14.69	16.21	16.52
	3H	15.72	17.13	16.10	17.46	17.82	15.75	17.16	16.13	17.49	17.85
	4H	16.21	17.54	16.61	17.89	18.26	16.24	17.56	16.64	17.91	18.29
	6H	16.55	17.78	16.96	18.14	18.53	16.55	17.78	16.97	18.14	18.54
	8H	16.64	17.81	17.07	18.20	18.60	16.63	17.80	17.06	18.19	18.59
	12H	16.69	17.81	17.12	18.19	18.62	16.67	17.79	17.10	18.17	18.60
4H	2H	15.86	17.18	16.26	17.53	17.91	15.40	16.73	15.80	17.08	17.45
	3H	17.20	18.31	17.61	18.70	19.11	17.06	18.17	17.47	18.57	18.97
	4H	17.71	18.70	18.14	19.12	19.56	17.62	18.61	18.05	19.03	19.47
	6H	18.08	18.95	18.54	19.39	19.85	17.99	18.86	18.45	19.30	19.76
	8H	18.18	18.99	18.65	19.44	19.90	18.09	18.90	18.55	19.34	19.81
	12H	18.25	18.97	18.73	19.45	19.92	18.14	18.87	18.62	19.35	19.82
8H	4H	18.19	19.00	18.66	19.45	19.91	17.96	18.77	18.42	19.21	19.68
	6H	18.64	19.32	19.14	19.81	20.28	18.46	19.13	18.96	19.62	20.10
	8H	18.79	19.39	19.30	19.90	20.39	18.61	19.21	19.12	19.72	20.21
	12H	18.89	19.42	19.40	19.91	20.48	18.71	19.24	19.22	19.73	20.29
12H	4H	18.24	18.97	18.72	19.44	19.91	17.98	18.70	18.46	19.18	19.65
	6H	18.73	19.33	19.24	19.84	20.33	18.51	19.11	19.02	19.62	20.11
	8H	18.92	19.45	19.43	19.94	20.51	18.71	19.25	19.22	19.74	20.30