

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: P242826

Luminaire Tested: S125DRP-S610D935-X4F0-XX-UDD-A-W

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-2024
Report Number: P242826
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-S610D935-X4F0-XX-UDD-A-W
Description: DEFINE 5 DIRECT RECESSED WITH ASYMMETRIC FLUSH DIFFUSER
STANDARD LIGHT ENGINE
Light Source: (92) 3500K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

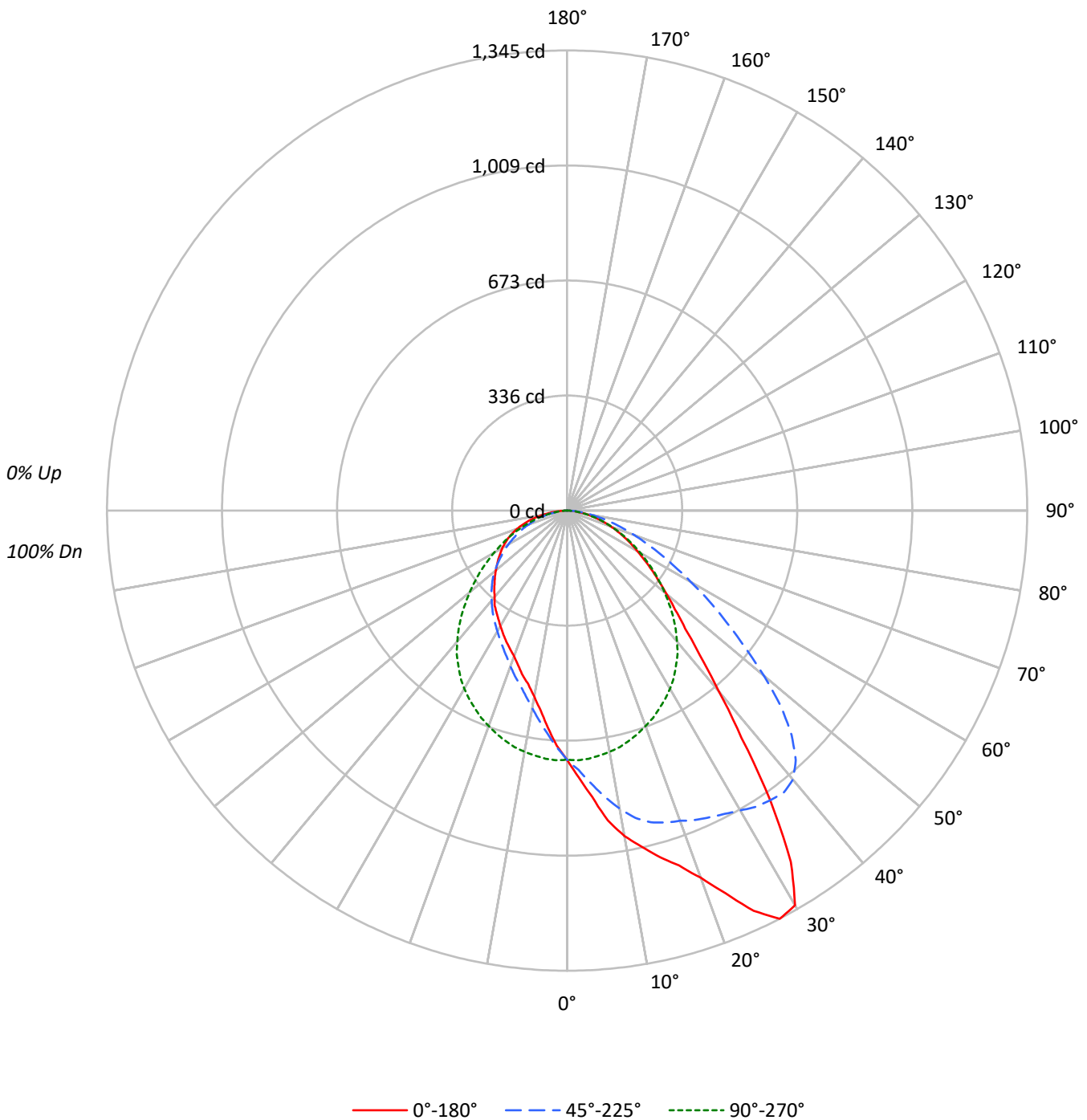
Lumens per Lamp: N/A
Luminaire Lumens: 2055.1 lumens
Efficiency: N/A
Efficacy: 109.3 lumens/watt
Spacing Criteria (0/90/45): 1.43 / 1.23 / 1.53
Luminous Opening: Rectangular (W 3.88' x L: 0.39' x H: 0')
CIE Type: Direct

Input Watts (W): 18.8
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: 24 FT

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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					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					85			
2	100	92	86	80	98	90	84	79	87	82	78	84	80	76	81	77	74	72					72			
3	92	82	74	68	89	80	73	67	77	71	66	74	69	65	72	67	64	61					61			
4	84	73	64	58	82	71	63	57	69	62	57	67	61	56	64	59	55	53					53			
5	78	65	56	50	76	64	56	50	62	55	49	60	54	49	58	53	48	46					46			
6	72	59	50	44	70	58	50	44	56	49	43	54	48	43	53	47	43	41					41			
7	67	53	45	39	65	53	45	39	51	44	39	50	43	38	48	42	38	36					36			
8	62	49	41	35	61	48	40	35	47	40	34	46	39	34	44	39	34	32					32			
9	58	45	37	31	57	44	37	31	43	36	31	42	36	31	41	35	31	29					29			
10	54	41	34	28	53	41	33	28	40	33	28	39	33	28	38	32	28	26					26			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°	135°	180°
0°	5176	5176	5176	5176	5176
5°	5994	5709	5193	4671	4548
10°	6973	6384	5167	4232	3984
15°	7719	6939	5129	3889	3675
20°	8641	7299	5068	3664	3427
25°	10123	7754	5001	3473	3306
30°	10933	8305	4934	3346	3201
35°	8990	8971	4808	3259	3132
40°	6390	9527	4634	3186	3057
45°	4909	9324	4399	3122	3013
50°	4191	8295	4108	3045	3008
55°	3731	7043	3823	2934	3033
60°	3366	5949	3511	2830	3110
65°	3108	5069	3197	2687	3192
70°	2826	4310	2872	2504	3238
75°	2496	3682	2529	2309	3207
80°	2100	3025	2063	1961	2935
85°	1664	2194	1484	1615	2373

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°
 Vertical Angle: 45°
 Luminance: 9324 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	70.1	3.4
10°-20°	208.8	10.2
20°-30°	339.1	16.5
30°-40°	414.4	20.2
40°-50°	376.0	18.3
50°-60°	299.5	14.6
60°-70°	208.6	10.1
70°-80°	111.1	5.4
80°-90°	27.6	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°	618.0	30.1
0°-40°	1032.4	50.2
0°-60°	1707.8	83.1
0°-90°	2055.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2055.1	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	728	728	728	728	728	
5°	840	800	728	655	637	84
15°	1049	943	697	529	500	300
25°	1291	989	638	443	422	591
35°	1036	1034	554	376	361	636
45°	488	928	438	311	300	389
55°	301	568	308	237	245	271
65°	185	301	190	160	190	183
75°	91	134	92	84	117	98
85°	20	27	18	20	29	24
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	728.2	728.2	728.2	728.2	728.2	728.2	728.2	728.2	728.2	728.2	728.2
2.5°	780.8	779.5	778.3	775.8	777.7	772.4	770.0	765.6	760.4	758.5	756.4
5°	840.1	841.7	843.2	836.7	837.3	833.0	823.1	815.1	808.6	800.2	794.4
7.5°	913.7	909.1	909.4	905.3	898.2	892.4	882.8	869.5	857.4	843.8	832.1
10°	966.2	966.5	963.8	958.8	951.1	945.5	931.9	918.9	903.2	884.6	871.3
12.5°	1005.8	1007.3	1003.6	996.5	993.7	979.5	969.6	953.6	934.1	920.2	898.2
15°	1049.1	1045.7	1043.2	1034.9	1028.4	1015.4	998.4	982.3	961.9	943.1	924.2
17.5°	1087.4	1090.2	1086.2	1080.0	1060.8	1045.7	1024.7	1004.3	979.8	956.3	934.4
20°	1142.4	1144.9	1137.8	1124.5	1100.4	1085.2	1055.3	1026.8	997.5	965.0	940.3
22.5°	1211.0	1207.9	1197.7	1175.8	1155.7	1124.5	1091.4	1055.3	1016.6	978.9	944.0
25°	1290.8	1277.8	1271.9	1246.9	1219.4	1178.3	1133.8	1083.1	1037.3	988.8	946.8
27.5°	1345.2	1339.9	1331.6	1311.2	1279.7	1233.0	1180.4	1119.9	1058.3	999.0	946.1
30°	1332.2	1332.8	1333.4	1327.9	1309.3	1276.3	1224.0	1157.6	1080.9	1012.0	948.3
32.5°	1217.2	1231.1	1244.4	1261.7	1272.9	1273.2	1245.3	1186.9	1107.5	1026.8	947.1
35°	1036.1	1039.5	1074.4	1109.0	1156.0	1192.5	1216.9	1190.3	1123.9	1033.9	946.1
37.5°	837.6	854.6	880.9	919.9	990.3	1047.8	1123.3	1149.2	1118.0	1039.8	945.8
40°	688.7	704.1	719.9	759.8	816.9	890.5	979.2	1054.9	1072.6	1026.8	936.6
42.5°	573.7	585.1	603.0	630.6	676.0	739.0	822.8	927.6	999.3	989.1	917.1
45°	488.4	496.1	509.7	533.5	568.1	619.1	693.9	802.1	896.4	927.6	884.0
47.5°	427.8	428.1	439.2	456.2	482.5	529.5	585.4	674.4	776.1	848.2	838.0
50°	379.0	377.4	385.8	400.0	419.8	448.5	501.4	569.0	665.8	750.2	773.7
52.5°	336.9	337.5	341.9	351.4	367.2	390.7	426.9	486.2	565.3	652.5	702.0
55°	301.1	299.8	305.7	312.8	324.9	340.9	369.4	416.0	483.1	568.4	625.9
57.5°	266.4	269.8	272.3	277.3	287.8	298.9	324.2	360.1	415.4	491.2	552.0
60°	236.8	240.2	242.0	247.0	255.0	264.3	282.8	310.6	355.5	418.5	478.8
62.5°	210.2	212.7	213.0	217.3	223.5	232.4	246.0	268.3	301.4	354.5	413.3
65°	184.8	184.8	186.1	190.7	193.8	201.8	213.0	230.0	258.4	301.4	351.8
67.5°	160.1	161.7	161.3	163.5	166.3	173.1	181.4	195.7	218.2	250.7	292.4
70°	136.0	137.2	136.9	138.5	141.6	145.6	152.1	165.4	180.5	207.4	242.0
72.5°	114.4	114.7	113.7	115.9	117.5	120.9	128.3	133.8	147.7	169.4	196.3
75°	90.9	91.5	92.1	93.3	95.2	97.1	100.8	107.9	117.1	134.1	152.4
77.5°	72.3	70.8	72.6	72.3	73.3	74.8	78.2	82.2	90.3	101.7	116.8
80°	51.3	51.6	51.6	51.9	53.5	54.4	57.2	60.0	65.8	73.9	83.8
82.5°	34.0	34.9	34.3	34.9	36.2	36.8	38.0	40.2	43.0	48.8	55.3
85°	20.4	18.9	19.5	20.1	20.1	20.4	21.6	22.6	24.4	26.9	29.7
87.5°	7.4	8.0	8.3	8.3	8.7	8.7	9.9	9.9	10.8	11.7	13.0
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°	728.2	728.2	728.2	728.2	728.2	728.2	728.2	728.2	728.2	728.2	728.2
2.5°	754.5	752.3	749.9	745.5	740.3	737.5	733.2	730.4	724.8	720.2	715.2
5°	787.3	779.2	771.8	762.2	751.7	744.9	736.9	727.9	718.6	709.1	698.6
7.5°	820.0	806.7	792.2	777.1	762.2	748.3	735.3	722.0	710.0	694.8	682.2
10°	853.1	835.2	816.0	793.4	771.5	752.3	732.9	715.9	698.6	680.0	663.6
12.5°	886.2	860.8	831.8	806.4	778.9	754.8	731.0	708.1	685.3	664.2	644.5
15°	898.2	877.2	852.2	816.9	787.3	755.4	725.1	697.0	670.7	647.9	623.8
17.5°	910.0	883.1	856.5	822.5	783.9	749.6	715.2	684.6	655.6	626.8	604.9
20°	912.8	884.9	856.8	823.7	783.9	743.1	708.8	670.1	638.3	608.3	579.9
22.5°	911.8	879.4	848.2	813.8	775.2	738.4	695.2	655.6	620.4	591.0	561.0
25°	905.0	871.3	833.0	798.7	760.4	720.5	678.5	637.7	602.4	568.7	539.4
27.5°	901.0	858.4	816.3	776.8	740.0	703.2	662.4	620.4	581.7	547.4	520.2
30°	892.1	844.1	795.3	753.6	715.6	680.0	642.0	601.2	560.4	527.0	497.3
32.5°	884.0	826.2	774.0	727.6	686.8	652.5	618.2	579.9	540.0	506.0	476.3
35°	873.2	808.6	749.6	698.2	655.3	619.7	590.4	554.2	517.4	484.7	456.2
37.5°	860.5	785.7	723.3	669.8	623.1	586.0	558.2	530.1	493.3	461.2	435.8
40°	845.1	761.0	693.9	638.9	590.1	551.1	525.8	499.5	470.1	440.8	413.6
42.5°	825.6	738.7	664.2	604.0	555.8	518.0	491.2	469.8	444.8	417.9	393.2
45°	800.9	710.9	631.8	568.1	519.3	481.9	454.4	437.7	418.2	392.2	370.9
47.5°	768.1	679.4	597.8	532.0	481.6	447.0	420.7	404.3	390.1	369.7	349.6
50°	721.4	643.2	560.4	495.2	444.8	409.9	386.1	371.5	359.8	345.0	328.6
52.5°	669.2	597.8	523.6	459.3	409.6	375.2	352.1	339.7	330.4	320.8	304.8
55°	613.2	551.4	481.0	419.8	373.7	340.0	319.6	308.5	300.4	292.4	282.5
57.5°	553.0	502.9	438.3	381.1	338.5	306.9	287.8	276.3	269.8	265.5	259.3
60°	488.7	447.3	393.5	342.5	301.1	273.9	255.3	247.0	241.7	238.3	234.0
62.5°	429.0	396.9	348.0	302.6	267.7	242.3	226.3	218.2	213.3	212.0	208.6
65°	370.6	344.3	303.2	264.6	233.7	211.7	197.8	190.1	187.0	185.1	185.5
67.5°	311.9	294.9	260.6	226.6	201.2	181.7	170.3	164.4	162.9	160.1	160.1
70°	259.0	247.0	219.1	190.4	168.5	154.2	144.3	138.2	136.6	135.4	135.1
72.5°	212.3	202.1	179.0	157.3	138.2	126.1	118.4	115.3	112.5	111.9	111.9
75°	166.6	160.7	141.6	123.3	109.7	101.1	95.5	92.1	90.3	89.9	90.3
77.5°	125.8	120.2	106.9	93.3	84.4	77.6	72.3	71.4	68.9	69.2	68.6
80°	89.0	85.6	77.9	67.7	60.6	55.0	52.5	50.4	49.8	48.8	49.8
82.5°	58.4	54.7	50.1	44.5	38.9	36.2	33.7	33.4	33.1	32.8	32.8
85°	31.8	32.1	29.1	24.1	21.6	19.8	18.2	18.2	17.9	17.6	17.9
87.5°	13.6	13.0	11.7	10.8	9.3	8.3	8.0	8.3	7.4	7.1	7.4
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°	728.2	728.2	728.2	728.2	728.2	728.2	728.2	728.2	728.2	728.2	728.2
2.5°	712.5	709.1	706.3	700.1	696.7	692.1	688.4	692.4	688.0	689.9	687.1
5°	693.3	684.6	678.5	669.5	661.8	654.7	649.4	648.5	646.0	644.8	641.1
7.5°	670.4	660.5	650.3	639.2	629.9	620.0	614.2	608.6	605.2	600.9	597.5
10°	650.6	636.1	623.8	609.5	597.2	586.4	577.7	573.4	569.4	563.5	561.3
12.5°	626.2	611.1	595.3	579.9	568.1	555.8	548.6	541.5	539.1	532.3	532.0
15°	607.7	585.1	570.3	554.8	538.4	528.6	522.4	515.3	512.2	507.5	504.1
17.5°	584.8	564.4	545.9	530.1	515.3	507.2	499.2	494.2	489.0	485.6	480.0
20°	559.5	540.3	521.8	504.8	493.9	484.4	478.2	473.5	468.0	466.4	460.9
22.5°	538.1	516.5	498.9	485.3	473.2	462.1	455.3	452.5	449.1	443.6	443.6
25°	514.6	492.7	477.6	463.3	452.8	442.9	438.3	434.3	430.6	427.2	425.9
27.5°	494.9	475.4	456.8	443.9	434.9	425.6	421.6	416.4	413.6	410.8	407.1
30°	473.8	453.8	438.0	425.6	415.7	407.7	403.4	400.0	397.5	395.0	393.2
32.5°	452.2	434.0	418.8	406.8	396.9	391.3	387.6	385.4	382.7	379.6	377.1
35°	433.7	413.3	398.4	387.9	380.2	375.6	371.2	369.1	366.0	366.0	363.5
37.5°	411.7	393.8	380.5	370.9	364.1	359.8	354.8	353.6	351.4	350.2	349.3
40°	392.6	376.2	363.8	354.2	346.8	343.4	339.7	337.2	336.0	334.4	333.8
42.5°	372.8	357.3	345.6	336.9	330.7	328.0	324.6	323.0	320.2	318.1	317.8
45°	352.7	337.5	326.7	319.6	314.0	310.6	308.5	304.8	303.5	301.1	300.8
47.5°	334.1	319.3	308.5	302.6	297.7	295.2	291.8	287.8	286.2	284.7	284.4
50°	312.8	299.5	289.6	284.1	279.4	275.4	272.0	269.5	268.6	268.6	269.2
52.5°	291.2	280.3	272.3	265.2	260.9	256.5	253.5	252.2	250.7	252.5	253.8
55°	270.1	258.7	252.5	246.0	241.7	236.8	235.2	234.6	233.7	236.1	237.4
57.5°	247.6	239.9	232.4	225.6	221.9	218.8	216.4	216.1	217.9	218.5	222.2
60°	226.3	217.0	210.5	205.5	200.9	199.1	198.4	197.8	199.1	202.5	207.7
62.5°	202.8	195.7	188.5	185.1	182.1	178.7	178.7	179.3	182.1	186.1	191.3
65°	179.9	173.4	168.8	164.4	161.7	159.8	160.4	161.7	164.4	169.7	175.6
67.5°	156.4	152.1	147.7	143.7	140.9	141.3	141.6	143.1	146.5	152.7	158.3
70°	133.8	128.9	125.5	123.9	121.8	120.5	122.4	125.5	128.3	133.8	138.5
72.5°	111.3	107.3	104.8	103.9	103.2	102.3	102.6	106.0	110.0	115.6	121.2
75°	89.0	87.5	85.6	84.4	83.5	84.1	84.7	87.8	90.9	96.7	102.9
77.5°	68.9	67.1	65.8	65.5	64.9	65.2	66.8	69.2	72.3	76.7	81.6
80°	49.1	48.5	47.9	47.6	47.6	47.9	50.4	51.9	54.7	58.7	62.4
82.5°	32.5	32.1	32.1	32.1	32.5	32.5	33.7	35.9	38.0	40.8	43.9
85°	18.9	18.2	19.2	19.5	18.9	19.8	20.4	21.6	22.6	24.1	25.7
87.5°	7.7	8.3	8.0	8.3	8.3	9.0	8.7	9.9	10.5	11.1	10.8
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):

	165°	170°	175°	180°
0°	728.2	728.2	728.2	728.2
2.5°	685.3	687.4	685.6	688.0
5°	639.5	636.7	638.6	637.4
7.5°	597.2	594.7	591.0	589.8
10°	557.9	554.5	554.2	552.0
12.5°	529.2	526.1	521.8	521.1
15°	502.3	499.8	497.6	499.5
17.5°	479.4	477.2	476.6	474.8
20°	458.1	456.5	457.2	453.1
22.5°	441.1	437.7	437.1	437.1
25°	423.2	421.6	420.1	421.6
27.5°	407.4	405.8	405.2	405.5
30°	393.2	390.1	390.4	390.1
32.5°	377.7	375.9	375.2	374.6
35°	362.6	362.6	361.0	361.0
37.5°	348.7	348.4	347.4	348.0
40°	332.6	332.3	331.4	329.5
42.5°	317.1	315.9	315.6	315.3
45°	300.8	300.8	300.1	299.8
47.5°	284.7	285.3	286.5	286.2
50°	270.5	270.8	271.7	272.0
52.5°	254.7	256.9	258.1	257.8
55°	240.2	242.3	244.5	244.8
57.5°	225.6	228.4	230.6	231.2
60°	210.8	214.8	217.6	218.8
62.5°	196.6	201.2	204.0	204.0
65°	180.8	185.5	187.9	189.8
67.5°	164.4	169.1	171.5	173.1
70°	146.2	150.8	154.5	155.8
72.5°	128.3	132.3	135.1	136.6
75°	106.9	112.5	115.3	116.8
77.5°	86.5	92.1	93.7	94.6
80°	66.1	69.2	71.4	71.7
82.5°	47.0	49.5	49.8	50.7
85°	27.8	29.1	29.4	29.1
87.5°	11.4	11.1	11.1	11.7
90°	0.0	0.0	0.0	0.0



TEST NUMBER: P242826

CATALOG NUMBER: S125DRP-S610D935-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	16.37	17.94	16.73	18.25	18.56	16.34	17.91	16.71	18.22	18.54
	3H	17.74	19.15	18.12	19.48	19.84	17.77	19.18	18.15	19.51	19.87
	4H	18.23	19.56	18.63	19.90	20.28	18.26	19.58	18.66	19.93	20.31
	6H	18.57	19.79	18.98	20.16	20.55	18.57	19.80	18.98	20.16	20.55
	8H	18.66	19.83	19.08	20.22	20.62	18.65	19.82	19.08	20.21	20.61
	12H	18.71	19.83	19.14	20.21	20.64	18.69	19.81	19.12	20.19	20.62
4H	2H	17.88	19.20	18.27	19.55	19.93	17.42	18.75	17.82	19.09	19.47
	3H	19.22	20.32	19.63	20.72	21.12	19.08	20.18	19.49	20.58	20.98
	4H	19.73	20.72	20.16	21.14	21.57	19.64	20.63	20.07	21.05	21.48
	6H	20.10	20.97	20.56	21.41	21.87	20.01	20.88	20.47	21.32	21.78
	8H	20.20	21.01	20.66	21.46	21.92	20.11	20.92	20.57	21.36	21.83
	12H	20.27	20.99	20.75	21.47	21.94	20.16	20.89	20.64	21.36	21.83
8H	4H	20.21	21.02	20.67	21.47	21.93	19.98	20.79	20.44	21.23	21.70
	6H	20.66	21.33	21.16	21.82	22.30	20.48	21.15	20.97	21.64	22.12
	8H	20.81	21.41	21.32	21.92	22.40	20.63	21.23	21.14	21.74	22.22
	12H	20.91	21.44	21.42	21.93	22.50	20.72	21.26	21.23	21.75	22.31
12H	4H	20.26	20.98	20.74	21.46	21.93	20.00	20.72	20.48	21.20	21.67
	6H	20.74	21.35	21.26	21.86	22.34	20.53	21.13	21.04	21.64	22.12
	8H	20.94	21.47	21.45	21.96	22.52	20.73	21.26	21.24	21.76	22.32