

Scaled data based on original data using
LM-79-2019 Approved Method: Electrical and Photometric Measurements of Solid-
State Lighting Products

Test Report Prepared for
Cooper Lighting Solutions

Brand: NEO-RAY

Report Number: P831394

Luminaire Tested: S123DIP-S340D365U950-4F0-1E-UDD-G1

Issue Date: 05/03/2024

Test Information

Test Method: LM-79-2019
Report Number: P831394
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2301-905-1, G3-1807-864-9)
Test Lab: INNOVATION CENTER
Issue Date: 05/03/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S123DIP-S340D365U950-4F0-1E-UDD-G1
Description: DEFINE 3 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 340 LUMENS PER FOOT, GRAZE OPTIC
UPLIGHT 365 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER
Light Source: -
Ballast/Driver: -

Summary

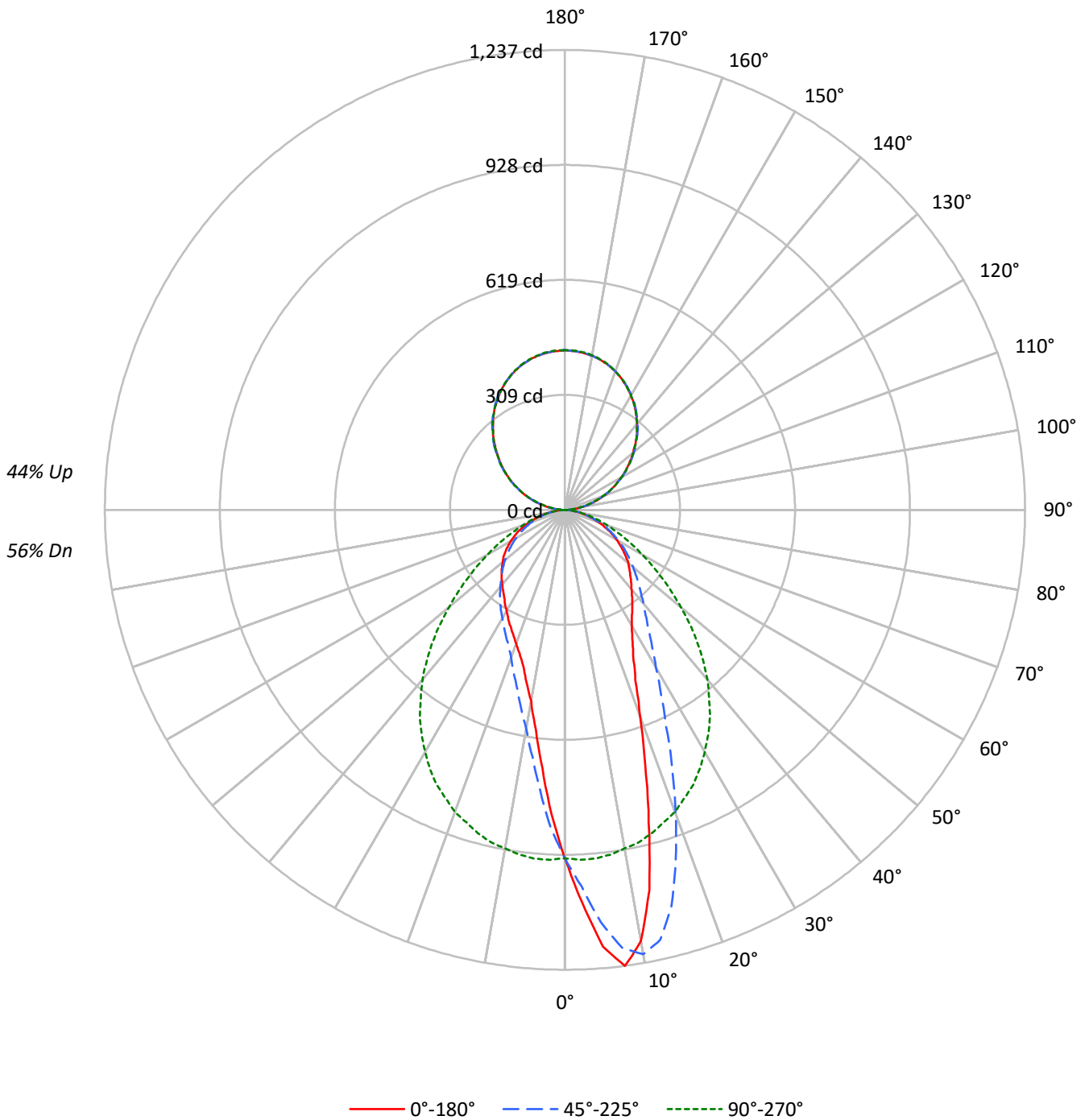
Lumens per Lamp: N/A
Luminaire Lumens: 2695.8 lumens
Efficiency: N/A
Efficacy: 120.3 lumens/watt
Spacing Criteria (0/90/45): 0.65 / 1.19 / 0.89
Luminous Opening: Rectangular (W 4' x L: 0.25' x H: 0')
CIE Type: General Diffuse

Input Watts (W): 22.4
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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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	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	109	109	109	109	101	101	101	101	87	87	87	74	74	74	62	62	62	56								
1	100	96	92	88	93	89	86	83	77	74	72	66	64	62	55	54	53	48								
2	91	84	78	73	85	79	73	69	68	64	61	58	56	53	49	47	46	41								
3	84	75	68	62	78	70	64	59	61	56	52	52	49	46	44	42	40	36								
4	77	67	59	53	71	62	56	50	54	49	45	47	43	40	40	37	35	31								
5	71	60	52	46	66	56	49	44	49	44	39	43	38	35	37	33	31	28								
6	66	54	46	41	61	51	44	39	45	39	35	39	35	31	34	30	28	25								
7	61	49	41	36	57	46	39	34	41	35	31	36	31	28	31	28	25	23								
8	57	45	37	32	53	42	36	31	38	32	28	33	29	25	29	25	23	21								
9	53	41	34	29	50	39	32	28	35	29	26	31	26	23	27	23	21	19								
10	50	38	31	26	47	36	30	25	32	27	23	29	24	21	25	22	19	17								

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°	135°	180°
0°	10083	10083	10083	10083	10083
5°	12751	12035	10172	8198	7533
10°	12874	13264	10105	6535	5710
15°	9697	12315	10036	5534	4829
20°	6756	9964	9907	4840	4386
25°	5152	7663	9689	4453	4114
30°	4457	6088	9340	4179	3895
35°	4135	5140	8938	3980	3741
40°	3915	4612	8373	3792	3688
45°	3784	4267	7655	3646	3666
50°	3719	3996	6805	3512	3647
55°	3581	3796	5971	3385	3663
60°	3453	3584	5147	3266	3602
65°	3245	3382	4439	3138	3533
70°	2996	3125	3777	2927	3323
75°	2712	2803	3236	2720	3036
80°	2238	2455	2560	2368	2560
85°	1766	1988	1877	2013	2038

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 80°
 Vertical Angle: 45°
 Luminance: 8741 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	88.6	3.3
10°-20°	220.3	8.2
20°-30°	260.8	9.7
30°-40°	262.3	9.7
40°-50°	240.6	8.9
50°-60°	198.6	7.4
60°-70°	140.5	5.2
70°-80°	75.0	2.8
80°-90°	19.9	0.7
90°-100°	27.6	1.0
100°-110°	83.6	3.1
110°-120°	142.3	5.3
120°-130°	187.3	6.9
130°-140°	210.5	7.8
140°-150°	206.9	7.7
150°-160°	174.2	6.5
160°-170°	116.0	4.3
170°-180°	40.6	1.5
0°-30°	569.7	21.1
0°-40°	832.0	30.9
0°-60°	1271.2	47.2
0°-90°	1506.6	55.9
90°-120°	253.6	9.4
90°-150°	858.3	31.8
90°-180°	1189.0	44.1
0°-180°	2695.8	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	937	937	937	937	937	
5°	1180	1114	941	759	697	112
15°	870	1105	901	497	433	240
25°	434	645	816	375	346	205
35°	315	391	680	303	285	198
45°	249	280	503	240	241	193
55°	191	202	318	180	195	171
65°	127	133	174	123	139	127
75°	65	67	78	65	73	68
85°	14	16	15	16	16	16
90°	10	8	0	8	10	6
95°	26	25	20	25	26	26
105°	80	80	76	80	80	85
115°	144	144	143	144	144	142
125°	207	210	210	210	207	185
135°	272	274	272	274	272	209
145°	330	332	330	332	330	206
155°	377	378	378	378	377	174
165°	410	411	412	411	410	116
175°	426	427	428	427	426	41
180°	429	429	429	429	429	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	936.7	936.7	936.7	936.7	936.7	936.7	936.7	936.7	936.7	936.7	936.7
2.5°	1055.8	1054.7	1053.6	1048.1	1042.7	1040.1	1037.5	1029.7	1021.9	1013.2	1004.5
5°	1180.1	1183.1	1186.1	1182.7	1179.2	1168.5	1157.9	1143.8	1129.6	1113.8	1097.9
7.5°	1237.4	1239.2	1240.9	1238.7	1236.6	1233.7	1230.9	1218.3	1205.7	1189.4	1173.1
10°	1177.9	1181.8	1185.7	1194.2	1202.7	1212.2	1221.8	1220.1	1218.3	1213.5	1208.7
12.5°	1047.1	1051.8	1056.6	1073.6	1090.5	1112.3	1134.0	1152.7	1171.4	1184.4	1197.4
15°	870.2	883.4	896.7	912.1	927.5	959.5	991.4	1030.8	1070.1	1105.1	1140.1
17.5°	716.7	721.7	726.7	743.2	759.8	800.0	840.2	885.6	931.0	989.0	1047.1
20°	589.8	594.4	598.9	620.7	642.4	673.9	705.4	756.5	807.6	869.9	932.3
22.5°	495.5	502.7	509.8	522.0	534.2	564.4	594.6	640.0	685.4	754.3	823.2
25°	433.8	439.0	444.2	451.6	459.0	483.1	507.2	544.6	582.0	645.2	708.5
27.5°	391.6	393.8	396.0	403.4	410.7	426.4	442.0	474.2	506.4	560.0	613.7
30°	358.6	360.1	361.6	368.1	374.7	385.3	396.0	419.2	442.5	489.8	537.2
32.5°	335.5	336.6	337.7	342.7	347.7	355.3	362.9	379.9	396.8	435.9	475.1
35°	314.7	315.3	316.0	319.7	323.4	329.0	334.7	347.5	360.3	391.2	422.0
37.5°	296.4	297.3	298.2	300.3	302.5	307.5	312.5	322.7	332.9	356.6	380.3
40°	278.6	280.1	281.7	283.2	284.7	288.8	293.0	300.8	308.6	328.2	347.7
42.5°	263.4	264.9	266.4	267.1	267.7	270.1	272.5	279.7	286.9	301.4	316.0
45°	248.6	249.3	249.9	250.6	251.2	253.2	255.1	261.4	267.7	280.3	293.0
47.5°	235.1	235.1	235.1	235.6	236.0	237.8	239.5	244.1	248.6	258.4	268.2
50°	222.1	222.1	222.1	221.5	220.8	221.9	223.0	226.5	229.9	238.6	247.3
52.5°	206.5	206.5	206.5	206.7	206.9	206.9	206.9	209.9	213.0	220.8	228.6
55°	190.8	191.7	192.5	191.9	191.2	191.7	192.1	194.1	196.0	202.3	208.6
57.5°	175.2	175.6	176.0	175.8	175.6	175.8	176.0	177.8	179.5	184.3	189.1
60°	160.4	160.4	160.4	159.9	159.5	159.9	160.4	161.3	162.1	166.5	170.8
62.5°	143.9	144.1	144.3	144.5	144.7	144.3	143.9	145.0	146.0	149.3	152.6
65°	127.4	127.6	127.8	128.4	129.1	128.7	128.2	129.3	130.4	132.8	135.2
67.5°	112.6	112.1	111.7	111.9	112.1	112.8	113.4	113.7	113.9	116.5	119.1
70°	95.2	95.6	96.1	95.8	95.6	95.8	96.1	96.7	97.4	99.3	101.3
72.5°	79.5	79.8	80.0	80.0	80.0	80.4	80.8	81.5	82.1	83.2	84.3
75°	65.2	65.2	65.2	65.6	66.1	66.3	66.5	66.5	66.5	67.4	68.2
77.5°	49.5	50.6	51.7	51.5	51.3	51.7	52.2	52.8	53.5	53.9	54.3
80°	36.1	36.1	36.1	36.3	36.5	37.2	37.8	38.2	38.7	39.6	40.4
82.5°	23.0	23.3	23.5	24.1	24.8	25.2	25.6	26.3	26.9	26.9	26.9
85°	14.3	13.9	13.5	13.9	14.3	14.8	15.2	15.4	15.6	16.1	16.5
87.5°	7.0	7.0	7.0	7.0	7.0	7.2	7.4	7.4	7.4	7.4	7.4
90°	10.1	10.0	9.8	9.7	9.5	9.3	9.0	8.7	8.4	8.1	7.1
92.5°	14.5	14.6	14.8	14.9	15.1	15.1	14.8	14.6	14.4	14.2	13.7
95°	26.3	26.3	26.3	26.3	26.3	26.1	25.8	25.5	25.2	24.9	24.3
97.5°	37.8	37.8	37.9	38.0	38.1	37.9	37.5	37.2	36.8	36.4	36.0
100°	51.2	51.1	50.9	50.8	50.6	50.5	50.2	50.0	49.8	49.6	49.2
102.5°	65.1	65.1	65.2	65.3	65.4	65.3	65.1	64.8	64.6	64.4	63.9
105°	80.2	80.1	79.9	79.8	79.6	79.6	79.6	79.6	79.6	79.6	78.9
107.5°	95.7	95.8	95.9	96.0	96.0	96.0	95.7	95.5	95.3	95.1	94.8
110°	111.6	111.7	111.9	112.0	112.2	112.1	111.8	111.5	111.2	110.9	110.8



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	128.4	128.4	128.4	128.4	128.4	128.3	127.9	127.5	127.1	126.8	126.8
115°	143.6	143.7	143.8	143.8	143.9	143.9	143.8	143.8	143.7	143.6	143.8
117.5°	159.1	159.4	159.6	159.8	160.0	160.1	160.1	160.1	160.1	160.1	160.3
120°	175.6	175.8	175.9	176.1	176.2	176.4	176.4	176.5	176.6	176.7	177.0
122.5°	191.5	191.7	191.9	192.2	192.4	192.6	192.8	193.1	193.3	193.5	193.7
125°	207.3	207.6	207.9	208.2	208.5	208.8	209.1	209.4	209.7	210.0	210.2
127.5°	223.2	223.5	223.8	224.1	224.4	224.8	225.2	225.7	226.1	226.6	226.7
130°	238.7	239.2	239.7	240.3	240.8	241.2	241.5	241.8	242.1	242.4	242.6
132.5°	254.9	255.2	255.6	256.0	256.4	256.7	257.1	257.5	257.9	258.2	258.4
135°	271.7	271.9	272.0	272.2	272.3	272.6	272.9	273.2	273.5	273.8	273.8
137.5°	286.6	286.8	287.0	287.2	287.5	287.8	288.1	288.5	288.9	289.3	289.0
140°	301.1	301.6	302.1	302.6	303.2	303.5	303.5	303.6	303.7	303.8	303.7
142.5°	315.9	316.3	316.6	317.0	317.4	317.6	317.7	317.8	317.8	317.9	317.8
145°	330.1	330.4	330.7	331.0	331.3	331.4	331.5	331.6	331.7	331.7	331.5
147.5°	342.9	343.3	343.8	344.2	344.7	344.9	344.9	344.9	344.9	344.9	344.7
150°	355.0	355.5	355.9	356.4	356.8	357.0	357.0	357.0	357.0	357.0	356.9
152.5°	366.8	367.2	367.6	367.9	368.3	368.4	368.3	368.1	368.0	367.8	367.7
155°	377.3	377.8	378.3	378.8	379.4	379.5	379.2	378.9	378.6	378.3	378.2
157.5°	387.0	387.5	387.9	388.4	388.8	388.9	388.6	388.3	388.0	387.7	387.6
160°	396.5	396.8	397.1	397.4	397.7	397.6	397.3	396.9	396.5	396.1	396.1
162.5°	403.6	404.1	404.6	405.1	405.6	405.7	405.3	405.0	404.6	404.2	404.2
165°	410.3	410.8	411.3	411.9	412.4	412.4	412.0	411.5	411.1	410.6	410.6
167.5°	416.4	416.8	417.3	417.7	418.2	418.2	417.7	417.3	416.8	416.4	416.3
170°	420.7	421.3	421.8	422.3	422.8	422.8	422.3	421.8	421.3	420.7	420.7
172.5°	424.1	424.6	425.2	425.7	426.2	426.3	425.8	425.4	424.9	424.5	424.5
175°	426.5	427.0	427.5	428.0	428.6	428.6	428.2	427.7	427.3	426.8	426.8
177.5°	427.8	428.3	428.9	429.4	429.9	430.0	429.5	429.1	428.6	428.2	428.2
180°	429.2	429.2	429.2	429.2	429.2	429.2	429.2	429.2	429.2	429.2	429.2



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	936.7	936.7	936.7	936.7	936.7	936.7	936.7	936.7	936.7	936.7	936.7
2.5°	1001.9	999.3	989.7	980.1	969.3	958.4	950.4	942.3	930.4	918.4	908.6
5°	1085.7	1073.6	1053.4	1033.2	1005.8	978.4	959.9	941.4	916.7	891.9	872.1
7.5°	1152.2	1131.4	1103.1	1074.9	1039.0	1003.2	969.3	935.4	897.5	859.7	828.9
10°	1194.6	1180.5	1147.9	1115.3	1067.3	1019.2	971.9	924.5	875.8	827.1	786.3
12.5°	1198.8	1200.1	1170.1	1140.1	1085.7	1031.4	973.8	916.2	854.9	793.7	746.1
15°	1162.5	1184.8	1168.3	1151.8	1097.0	1042.3	971.4	900.6	830.0	759.3	704.3
17.5°	1095.1	1143.1	1145.5	1147.9	1093.1	1038.4	959.9	881.5	801.5	721.5	663.7
20°	1003.2	1074.0	1098.3	1122.7	1078.1	1033.6	949.3	864.9	775.4	685.9	625.2
22.5°	909.3	995.3	1039.9	1084.4	1051.4	1018.4	928.6	838.9	744.3	649.8	588.3
25°	802.4	896.2	964.7	1033.2	1012.9	992.7	904.3	815.8	715.2	614.6	551.8
27.5°	709.1	804.5	887.1	969.7	965.3	961.0	873.2	785.4	682.4	579.4	518.7
30°	626.1	715.0	807.4	899.7	910.4	921.0	836.3	751.5	648.3	545.0	486.6
32.5°	552.7	630.2	729.3	828.4	849.3	870.2	793.7	717.2	615.0	512.9	456.6
35°	492.5	562.9	662.0	761.1	787.1	813.2	746.7	680.2	580.7	481.2	427.5
37.5°	439.2	498.1	594.8	691.5	723.5	755.4	695.9	636.3	543.1	449.9	400.5
40°	395.1	442.5	531.4	620.2	657.2	694.1	645.0	595.9	507.4	419.0	373.6
42.5°	358.1	400.3	480.9	561.6	597.0	632.4	590.9	549.4	470.7	392.1	350.5
45°	326.6	360.3	433.6	506.8	540.5	574.2	538.5	502.9	433.6	364.2	325.5
47.5°	297.1	326.0	388.6	451.2	481.2	511.1	483.3	455.5	396.8	338.2	303.2
50°	270.6	293.8	348.6	403.4	429.4	455.5	431.0	406.4	358.1	309.9	279.5
52.5°	247.5	266.4	312.3	358.1	380.5	402.9	381.8	360.8	322.5	284.3	257.7
55°	224.7	240.8	280.6	320.3	335.5	350.8	334.5	318.2	287.3	256.4	234.1
57.5°	203.4	217.8	250.4	283.0	294.7	306.4	291.6	276.9	253.6	230.4	211.7
60°	182.6	194.3	221.5	248.6	255.8	263.0	251.0	239.1	222.8	206.5	189.7
62.5°	163.2	173.9	194.1	214.3	219.1	223.8	214.7	205.6	193.2	180.8	167.8
65°	143.2	151.3	167.8	184.3	187.3	190.4	182.3	174.3	164.9	155.6	146.0
67.5°	124.7	130.4	143.9	157.3	157.6	157.8	151.3	144.7	139.5	134.3	126.7
70°	106.7	112.1	121.0	130.0	130.2	130.4	125.2	120.0	116.1	112.1	106.5
72.5°	88.2	92.1	98.9	105.6	105.2	104.7	101.5	98.2	95.2	92.1	88.0
75°	71.5	74.8	79.3	83.9	82.6	81.3	79.5	77.8	75.2	72.6	70.0
77.5°	56.3	58.2	60.9	63.5	62.6	61.7	60.2	58.7	56.7	54.8	53.7
80°	41.3	42.2	43.9	45.6	45.2	44.8	43.0	41.3	40.9	40.4	38.9
82.5°	28.0	29.1	29.6	30.0	29.8	29.6	28.3	26.9	26.5	26.1	25.9
85°	16.7	17.0	17.2	17.4	16.7	16.1	15.6	15.2	15.2	15.2	15.0
87.5°	7.6	7.8	7.8	7.8	7.6	7.4	7.0	6.5	6.7	7.0	7.0
90°	6.1	5.2	4.2	3.3	2.6	1.8	1.1	0.3	1.1	1.8	2.6
92.5°	13.3	12.8	12.4	11.9	11.5	11.0	10.6	10.1	10.6	11.0	11.5
95°	23.7	23.1	22.6	22.0	21.5	20.9	20.4	19.9	20.4	20.9	21.5
97.5°	35.5	35.1	34.6	34.2	33.8	33.5	33.1	32.7	33.1	33.5	33.8
100°	48.8	48.4	48.1	47.6	47.2	46.7	46.3	45.9	46.3	46.7	47.2
102.5°	63.3	62.8	62.3	61.9	61.7	61.5	61.2	61.0	61.2	61.5	61.7
105°	78.2	77.5	76.9	76.5	76.3	76.2	76.0	75.9	76.0	76.2	76.3
107.5°	94.5	94.2	93.9	93.7	93.6	93.5	93.5	93.4	93.5	93.5	93.6
110°	110.6	110.5	110.3	110.2	110.0	109.9	109.7	109.6	109.7	109.9	110.0



TEST NUMBER: P831394

CATALOG NUMBER: S123DIP-S340D365U950-4F0-1E-UDD-G1

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
112.5°	126.8	126.8	126.8	126.7	126.7	126.6	126.5	126.4	126.5	126.6	126.7
115°	143.9	144.1	144.2	144.2	144.0	143.7	143.5	143.3	143.5	143.7	144.0
117.5°	160.4	160.6	160.7	160.8	160.7	160.6	160.6	160.5	160.6	160.6	160.7
120°	177.4	177.8	178.2	178.1	177.7	177.2	176.8	176.3	176.8	177.2	177.7
122.5°	193.8	194.0	194.1	194.0	193.7	193.4	193.1	192.8	193.1	193.4	193.7
125°	210.3	210.5	210.6	210.6	210.4	210.1	209.9	209.7	209.9	210.1	210.4
127.5°	226.9	227.0	227.2	227.0	226.6	226.1	225.7	225.2	225.7	226.1	226.6
130°	242.8	243.1	243.3	243.1	242.5	241.9	241.3	240.7	241.3	241.9	242.5
132.5°	258.5	258.7	258.8	258.6	258.0	257.4	256.8	256.2	256.8	257.4	258.0
135°	273.9	274.0	274.1	273.9	273.4	273.0	272.5	272.1	272.5	273.0	273.4
137.5°	288.8	288.6	288.4	288.1	287.7	287.3	286.9	286.6	286.9	287.3	287.7
140°	303.6	303.5	303.5	303.2	302.9	302.5	302.1	301.7	302.1	302.5	302.9
142.5°	317.6	317.5	317.3	317.1	316.7	316.3	315.9	315.6	315.9	316.3	316.7
145°	331.3	331.1	330.8	330.7	330.5	330.4	330.2	330.1	330.2	330.4	330.5
147.5°	344.4	344.2	344.0	343.7	343.4	343.1	342.8	342.5	342.8	343.1	343.4
150°	356.7	356.6	356.4	356.3	356.1	356.0	355.8	355.7	355.8	356.0	356.1
152.5°	367.7	367.6	367.5	367.4	367.1	366.9	366.7	366.5	366.7	366.9	367.1
155°	378.1	378.0	378.0	377.9	377.9	377.9	377.9	377.9	377.9	377.9	377.9
157.5°	387.6	387.5	387.4	387.4	387.5	387.6	387.6	387.7	387.6	387.6	387.5
160°	396.1	396.1	396.1	396.2	396.4	396.5	396.7	396.8	396.7	396.5	396.4
162.5°	404.1	404.0	403.9	404.0	404.2	404.4	404.7	404.9	404.7	404.4	404.2
165°	410.6	410.6	410.6	410.7	411.0	411.2	411.4	411.6	411.4	411.2	411.0
167.5°	416.2	416.1	416.1	416.2	416.5	416.8	417.1	417.4	417.1	416.8	416.5
170°	420.7	420.7	420.7	420.9	421.2	421.5	421.8	422.1	421.8	421.5	421.2
172.5°	424.5	424.5	424.5	424.6	424.9	425.2	425.5	425.8	425.5	425.2	424.9
175°	426.8	426.8	426.8	427.0	427.3	427.6	427.9	428.2	427.9	427.6	427.3
177.5°	428.2	428.2	428.2	428.3	428.6	428.9	429.2	429.5	429.2	428.9	428.6
180°	429.2	429.2	429.2	429.2	429.2	429.2	429.2	429.2	429.2	429.2	429.2



TEST NUMBER: P831394

CATALOG NUMBER: S123DIP-S340D365U950-4F0-1E-UDD-G1

CANDELA DISTRIBUTION (continued):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	936.7	936.7	936.7	936.7	936.7	936.7	936.7	936.7	936.7	936.7	936.7
2.5°	898.8	890.4	881.9	875.4	868.9	857.8	846.7	844.1	841.5	837.8	834.1
5°	852.3	831.5	810.6	791.9	773.2	758.7	744.1	734.6	725.0	718.0	711.1
7.5°	798.0	766.7	735.4	713.3	691.1	670.0	648.9	642.2	635.5	626.3	617.2
10°	745.4	710.9	676.3	647.4	618.5	597.9	577.2	569.0	560.7	549.2	537.7
12.5°	698.5	660.7	622.8	593.7	564.6	544.6	524.6	512.7	500.7	494.2	487.7
15°	649.4	608.9	568.5	541.6	514.6	496.6	478.5	468.1	457.7	451.4	445.1
17.5°	605.9	565.9	525.9	500.1	474.2	457.7	441.2	432.0	422.9	418.1	413.3
20°	564.6	525.5	486.4	461.2	435.9	422.5	409.0	403.1	397.3	393.4	389.4
22.5°	526.8	488.3	449.9	428.3	406.8	396.0	385.1	381.0	376.8	373.6	370.3
25°	489.0	454.6	420.3	402.0	383.8	374.9	366.0	361.8	357.7	354.5	351.2
27.5°	458.1	425.3	392.5	376.8	361.2	354.2	347.3	344.0	340.8	337.7	334.7
30°	428.1	398.8	369.4	356.0	342.5	336.2	329.9	326.6	323.4	320.6	317.7
32.5°	400.3	375.1	349.9	337.5	325.1	319.9	314.7	310.8	306.9	304.7	302.5
35°	373.8	351.2	328.6	318.4	308.2	302.9	297.7	294.5	291.2	289.5	287.7
37.5°	351.2	331.0	310.8	301.0	291.2	286.2	281.2	278.4	275.6	274.9	274.3
40°	328.2	310.8	293.4	283.8	274.3	269.9	265.6	263.8	262.1	261.7	261.2
42.5°	309.0	292.1	275.1	266.4	257.7	254.1	250.4	249.5	248.6	249.3	249.9
45°	286.9	272.7	258.6	250.6	242.5	239.5	236.4	235.8	235.1	236.4	237.8
47.5°	268.2	255.1	242.1	234.5	226.9	224.7	222.5	222.3	222.1	223.8	225.6
50°	249.1	236.4	223.8	217.8	211.7	209.7	207.8	208.4	209.1	211.9	214.7
52.5°	231.2	219.5	207.8	202.1	196.5	195.2	193.9	195.4	196.9	199.9	203.0
55°	211.7	201.0	190.4	186.0	181.7	180.4	179.1	182.1	185.2	188.0	190.8
57.5°	193.0	183.6	174.3	170.4	166.5	166.3	166.0	168.9	171.7	174.7	177.8
60°	173.0	165.2	157.3	154.3	151.3	151.7	152.1	155.4	158.6	161.0	163.4
62.5°	154.7	148.2	141.7	138.9	136.0	137.1	138.2	141.5	144.7	147.6	150.4
65°	136.5	131.0	125.6	123.7	121.7	123.2	124.7	127.6	130.4	132.3	134.3
67.5°	119.1	114.5	110.0	108.4	106.9	108.4	110.0	112.8	115.6	117.6	119.5
70°	100.8	97.1	93.4	92.4	91.3	93.0	94.8	97.1	99.5	101.5	103.4
72.5°	83.9	81.1	78.2	78.0	77.8	79.3	80.8	83.2	85.6	86.9	88.2
75°	67.4	65.8	64.3	64.1	63.9	65.4	66.9	68.2	69.5	70.6	71.7
77.5°	52.6	51.3	50.0	50.2	50.4	51.5	52.6	53.9	55.2	55.9	56.5
80°	37.4	36.9	36.5	36.9	37.4	38.2	39.1	40.0	40.9	41.3	41.7
82.5°	25.6	25.2	24.8	25.4	26.1	26.7	27.4	28.0	28.7	28.9	29.1
85°	14.8	15.4	16.1	16.1	16.1	16.3	16.5	16.7	17.0	16.7	16.5
87.5°	7.0	7.2	7.4	7.4	7.4	7.6	7.8	7.8	7.8	7.6	7.4
90°	3.3	4.2	5.2	6.1	7.1	8.1	8.4	8.7	9.0	9.3	9.5
92.5°	11.9	12.4	12.8	13.3	13.7	14.2	14.4	14.6	14.8	15.1	15.1
95°	22.0	22.6	23.1	23.7	24.3	24.9	25.2	25.5	25.8	26.1	26.3
97.5°	34.2	34.6	35.1	35.5	36.0	36.4	36.8	37.2	37.5	37.9	38.1
100°	47.6	48.1	48.4	48.8	49.2	49.6	49.8	50.0	50.2	50.5	50.6
102.5°	61.9	62.3	62.8	63.3	63.9	64.4	64.6	64.8	65.1	65.3	65.4
105°	76.5	76.9	77.5	78.2	78.9	79.6	79.6	79.6	79.6	79.6	79.6
107.5°	93.7	93.9	94.2	94.5	94.8	95.1	95.3	95.5	95.7	96.0	96.0
110°	110.2	110.3	110.5	110.6	110.8	110.9	111.2	111.5	111.8	112.1	112.2



TEST NUMBER: P831394

CATALOG NUMBER: S123DIP-S340D365U950-4F0-1E-UDD-G1

CANDELA DISTRIBUTION (continued):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
112.5°	126.7	126.8	126.8	126.8	126.8	126.8	127.1	127.5	127.9	128.3	128.4
115°	144.2	144.2	144.1	143.9	143.8	143.6	143.7	143.8	143.8	143.9	143.9
117.5°	160.8	160.7	160.6	160.4	160.3	160.1	160.1	160.1	160.1	160.1	160.0
120°	178.1	178.2	177.8	177.4	177.0	176.7	176.6	176.5	176.4	176.4	176.2
122.5°	194.0	194.1	194.0	193.8	193.7	193.5	193.3	193.1	192.8	192.6	192.4
125°	210.6	210.6	210.5	210.3	210.2	210.0	209.7	209.4	209.1	208.8	208.5
127.5°	227.0	227.2	227.0	226.9	226.7	226.6	226.1	225.7	225.2	224.8	224.4
130°	243.1	243.3	243.1	242.8	242.6	242.4	242.1	241.8	241.5	241.2	240.8
132.5°	258.6	258.8	258.7	258.5	258.4	258.2	257.9	257.5	257.1	256.7	256.4
135°	273.9	274.1	274.0	273.9	273.8	273.8	273.5	273.2	272.9	272.6	272.3
137.5°	288.1	288.4	288.6	288.8	289.0	289.3	288.9	288.5	288.1	287.8	287.5
140°	303.2	303.5	303.5	303.6	303.7	303.8	303.7	303.6	303.5	303.5	303.2
142.5°	317.1	317.3	317.5	317.6	317.8	317.9	317.8	317.8	317.7	317.6	317.4
145°	330.7	330.8	331.1	331.3	331.5	331.7	331.7	331.6	331.5	331.4	331.3
147.5°	343.7	344.0	344.2	344.4	344.7	344.9	344.9	344.9	344.9	344.9	344.7
150°	356.3	356.4	356.6	356.7	356.9	357.0	357.0	357.0	357.0	357.0	356.8
152.5°	367.4	367.5	367.6	367.7	367.7	367.8	368.0	368.1	368.3	368.4	368.3
155°	377.9	378.0	378.0	378.1	378.2	378.3	378.6	378.9	379.2	379.5	379.4
157.5°	387.4	387.4	387.5	387.6	387.6	387.7	388.0	388.3	388.6	388.9	388.8
160°	396.2	396.1	396.1	396.1	396.1	396.1	396.5	396.9	397.3	397.6	397.7
162.5°	404.0	403.9	404.0	404.1	404.2	404.2	404.6	405.0	405.3	405.7	405.6
165°	410.7	410.6	410.6	410.6	410.6	410.6	411.1	411.5	412.0	412.4	412.4
167.5°	416.2	416.1	416.1	416.2	416.3	416.4	416.8	417.3	417.7	418.2	418.2
170°	420.9	420.7	420.7	420.7	420.7	420.7	421.3	421.8	422.3	422.8	422.8
172.5°	424.6	424.5	424.5	424.5	424.5	424.5	424.9	425.4	425.8	426.3	426.2
175°	427.0	426.8	426.8	426.8	426.8	426.8	427.3	427.7	428.2	428.6	428.6
177.5°	428.3	428.2	428.2	428.2	428.2	428.2	428.6	429.1	429.5	430.0	429.9
180°	429.2	429.2	429.2	429.2	429.2	429.2	429.2	429.2	429.2	429.2	429.2



TEST NUMBER: P831394

CATALOG NUMBER: S123DIP-S340D365U950-4F0-1E-UDD-G1

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°
0°	936.7	936.7	936.7	936.7
2.5°	832.6	831.0	825.0	818.9
5°	705.9	700.6	698.9	697.2
7.5°	616.8	616.3	607.2	598.1
10°	538.3	539.0	530.7	522.4
12.5°	482.2	476.8	476.2	475.5
15°	440.1	435.1	434.2	433.3
17.5°	410.3	407.3	406.4	405.5
20°	387.7	386.0	384.4	382.9
22.5°	368.1	366.0	364.7	363.4
25°	349.2	347.3	346.8	346.4
27.5°	332.3	329.9	329.9	329.9
30°	316.2	314.7	314.0	313.4
32.5°	301.2	299.9	299.9	299.9
35°	287.1	286.4	285.6	284.7
37.5°	274.3	274.3	273.8	273.4
40°	261.9	262.5	262.5	262.5
42.5°	250.6	251.2	251.2	251.2
45°	238.8	239.9	240.4	240.8
47.5°	227.3	229.1	229.5	229.9
50°	216.0	217.3	217.5	217.8
52.5°	204.5	206.0	207.1	208.2
55°	192.3	193.9	194.5	195.2
57.5°	179.3	180.8	181.0	181.2
60°	164.9	166.5	166.9	167.3
62.5°	151.3	152.1	152.6	153.0
65°	135.6	136.9	137.8	138.7
67.5°	120.6	121.7	121.7	121.7
70°	103.9	104.3	105.0	105.6
72.5°	88.5	88.7	88.7	88.7
75°	72.2	72.6	72.8	73.0
77.5°	56.7	56.9	56.9	56.9
80°	41.5	41.3	41.3	41.3
82.5°	28.5	27.8	27.8	27.8
85°	16.3	16.1	16.3	16.5
87.5°	7.4	7.4	7.4	7.4
90°	9.7	9.8	10.0	10.1
92.5°	14.9	14.8	14.6	14.5
95°	26.3	26.3	26.3	26.3
97.5°	38.0	37.9	37.8	37.8
100°	50.8	50.9	51.1	51.2
102.5°	65.3	65.2	65.1	65.1
105°	79.8	79.9	80.1	80.2
107.5°	96.0	95.9	95.8	95.7
110°	112.0	111.9	111.7	111.6



TEST NUMBER: P831394

CATALOG NUMBER: S123DIP-S340D365U950-4F0-1E-UDD-G1

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°
112.5°	128.4	128.4	128.4	128.4
115°	143.8	143.8	143.7	143.6
117.5°	159.8	159.6	159.4	159.1
120°	176.1	175.9	175.8	175.6
122.5°	192.2	191.9	191.7	191.5
125°	208.2	207.9	207.6	207.3
127.5°	224.1	223.8	223.5	223.2
130°	240.3	239.7	239.2	238.7
132.5°	256.0	255.6	255.2	254.9
135°	272.2	272.0	271.9	271.7
137.5°	287.2	287.0	286.8	286.6
140°	302.6	302.1	301.6	301.1
142.5°	317.0	316.6	316.3	315.9
145°	331.0	330.7	330.4	330.1
147.5°	344.2	343.8	343.3	342.9
150°	356.4	355.9	355.5	355.0
152.5°	367.9	367.6	367.2	366.8
155°	378.8	378.3	377.8	377.3
157.5°	388.4	387.9	387.5	387.0
160°	397.4	397.1	396.8	396.5
162.5°	405.1	404.6	404.1	403.6
165°	411.9	411.3	410.8	410.3
167.5°	417.7	417.3	416.8	416.4
170°	422.3	421.8	421.3	420.7
172.5°	425.7	425.2	424.6	424.1
175°	428.0	427.5	427.0	426.5
177.5°	429.4	428.9	428.3	427.8
180°	429.2	429.2	429.2	429.2



TEST NUMBER: P831394

CATALOG NUMBER: S123DIP-S340D365U950-4F0-1E-UDD-G1

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	12.13	13.00	13.04	13.93	15.12	14.37	15.24	15.28	16.17	17.36
	3H	13.78	14.56	14.70	15.50	16.71	15.79	16.58	16.72	17.51	18.72
	4H	14.35	15.10	15.29	16.04	17.26	16.24	16.98	17.18	17.92	19.15
	6H	14.73	15.41	15.68	16.35	17.59	16.52	17.20	17.47	18.15	19.38
	8H	14.82	15.47	15.78	16.44	17.67	16.58	17.23	17.54	18.19	19.43
	12H	14.87	15.49	15.83	16.44	17.70	16.60	17.22	17.56	18.18	19.43
4H	2H	12.71	13.45	13.65	14.39	15.61	14.53	15.27	15.48	16.21	17.43
	3H	14.54	15.15	15.49	16.12	17.36	16.15	16.77	17.11	17.74	18.97
	4H	15.23	15.80	16.20	16.76	18.02	16.74	17.30	17.70	18.26	19.52
	6H	15.71	16.19	16.69	17.18	18.44	17.14	17.63	18.12	18.61	19.87
	8H	15.85	16.30	16.83	17.28	18.55	17.25	17.71	18.23	18.69	19.96
	12H	15.92	16.32	16.91	17.32	18.60	17.30	17.71	18.30	18.70	19.98
8H	4H	15.50	15.95	16.48	16.94	18.21	16.84	17.29	17.82	18.28	19.55
	6H	16.09	16.46	17.09	17.49	18.76	17.35	17.72	18.35	18.74	20.01
	8H	16.30	16.63	17.31	17.64	18.93	17.53	17.85	18.54	18.87	20.16
	12H	16.42	16.71	17.44	17.72	19.05	17.63	17.92	18.64	18.92	20.26
12H	4H	15.50	15.91	16.50	16.91	18.19	16.82	17.23	17.82	18.22	19.50
	6H	16.14	16.47	17.15	17.48	18.77	17.36	17.69	18.37	18.70	19.99
	8H	16.38	16.67	17.39	17.67	19.01	17.56	17.85	18.58	18.85	20.19