

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: P832129

Luminaire Tested: S123RDIP-S340D585U927-4F0-1E-UDD-G1

Issue Date: 05/03/2024

Test Information

Test Method: LM-79-2019
Report Number: P832129
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2301-905-2, G3-1807-864-9)
Test Lab: INNOVATION CENTER
Issue Date: 05/03/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S123RDIP-S340D585U927-4F0-1E-UDD-G1
Description: DEFINE 3 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 340 LUMENS PER FOOT, GRAZE OPTIC
UPLIGHT 585 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER
Light Source: -
Ballast/Driver: -

Summary

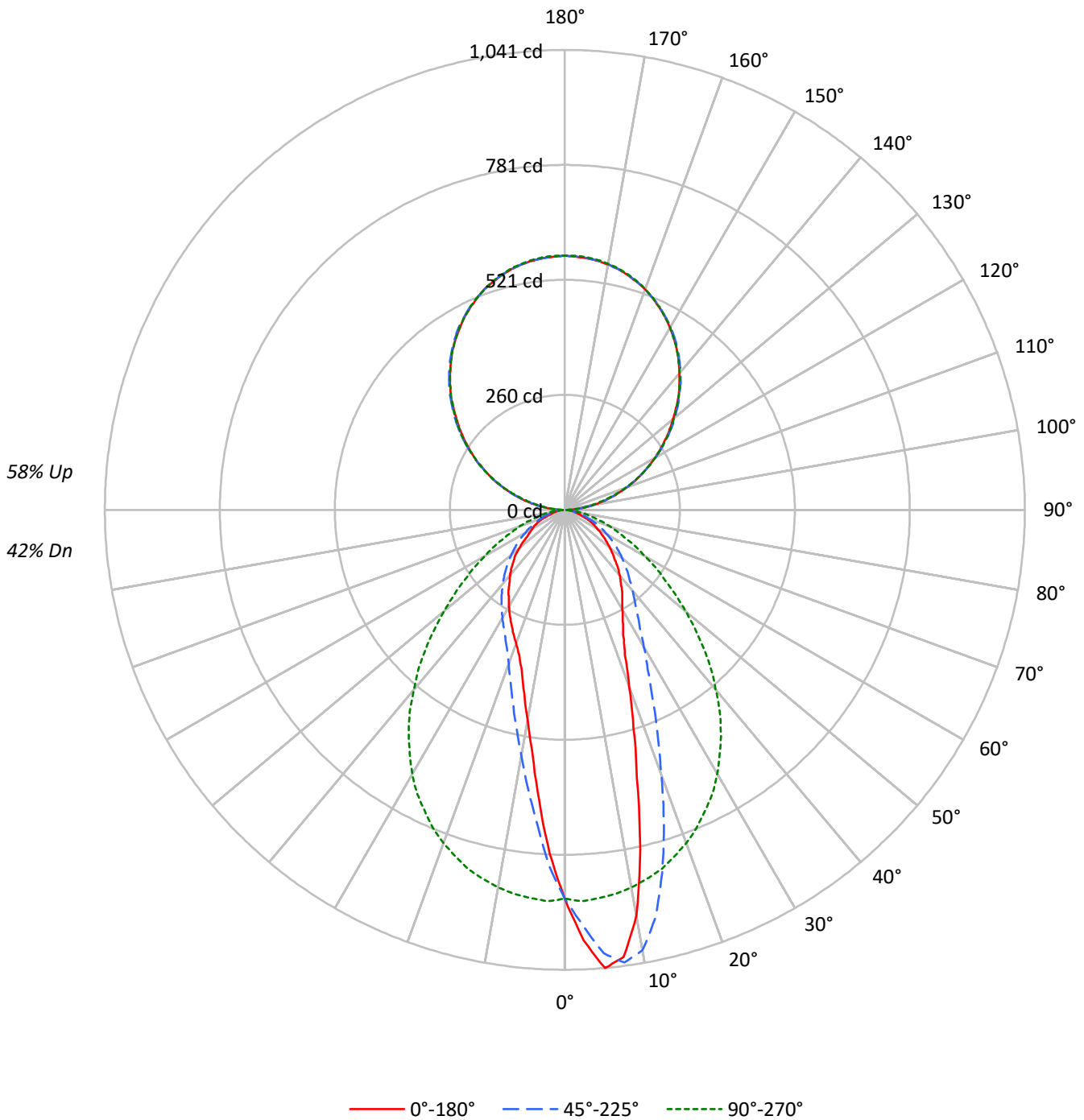
Lumens per Lamp: N/A
Luminaire Lumens: 2761.8 lumens
Efficiency: N/A
Efficacy: 100.1 lumens/watt
Spacing Criteria (0/90/45): 0.55 / 1.17 / 0.8
Luminous Opening: Rectangular (W 4' x L: 0.25' x H: 0')
CIE Type: General Diffuse

Input Watts (W): 27.6
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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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	0	
RCR																						
0	105	105	105	105	96	96	96	96	79	79	79	63	63	63	49	49	49	42				42
1	97	93	89	86	88	85	82	79	70	68	66	57	55	54	44	43	43	37				37
2	89	82	76	71	81	75	70	66	62	59	56	51	48	46	40	38	37	32				32
3	81	73	66	60	74	67	61	56	56	51	48	45	43	40	36	34	32	28				28
4	75	65	57	52	68	60	53	48	50	45	42	41	38	35	33	31	29	25				25
5	69	58	50	45	63	54	47	42	45	40	36	37	34	31	30	28	26	22				22
6	64	52	45	39	58	48	42	37	41	36	32	34	30	28	28	25	23	20				20
7	59	48	40	35	54	44	38	33	38	32	29	31	28	25	25	23	21	18				18
8	55	43	36	31	51	40	34	29	34	29	26	29	25	22	24	21	19	17				17
9	51	40	33	28	47	37	31	26	32	27	23	27	23	20	22	19	17	15				15
10	48	37	30	25	44	34	28	24	29	25	21	25	21	19	21	18	16	14				14

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°	135°	180°
0°	9473	9473	9473	9473	9473
5°	11248	10889	9532	7706	7154
10°	10191	11060	9485	6174	5297
15°	7016	9483	9385	5046	4190
20°	4881	7301	9196	4255	3683
25°	3720	5564	8922	3782	3394
30°	3238	4448	8580	3511	3143
35°	2972	3753	8093	3284	2916
40°	2712	3351	7458	3060	2708
45°	2449	3064	6772	2848	2500
50°	2224	2828	5963	2641	2242
55°	2012	2597	5187	2438	1924
60°	1802	2362	4506	2213	1817
65°	1663	2096	3879	1989	1719
70°	1350	1813	3383	1800	1397
75°	1185	1439	2865	1493	1231
80°	1072	1221	2349	1252	1165
85°	976	1074	1778	1136	1074

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 80°
 Vertical Angle: 45°
 Luminance: 7145 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	80.2	2.9
10°-20°	185.6	6.7
20°-30°	213.0	7.7
30°-40°	209.9	7.6
40°-50°	185.1	6.7
50°-60°	142.4	5.2
60°-70°	93.6	3.4
70°-80°	45.5	1.6
80°-90°	12.7	0.5
90°-100°	37.0	1.3
100°-110°	112.1	4.1
110°-120°	190.8	6.9
120°-130°	251.0	9.1
130°-140°	282.1	10.2
140°-150°	277.4	10.0
150°-160°	233.5	8.5
160°-170°	155.5	5.6
170°-180°	54.4	2.0
0°-30°	478.8	17.3
0°-40°	688.7	24.9
0°-60°	1016.3	36.8
0°-90°	1168.0	42.3
90°-120°	339.9	12.3
90°-150°	1150.4	41.7
90°-180°	1594.0	57.7
0°-180°	2761.8	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	880	880	880	880	880	
5°	1041	1008	882	713	662	95
15°	630	851	842	453	376	178
25°	313	468	751	318	286	148
35°	226	286	616	250	222	141
45°	161	201	445	187	164	125
55°	107	138	276	130	102	96
65°	65	82	152	78	68	64
75°	28	35	69	36	30	31
85°	8	9	14	9	9	8
90°	14	11	0	11	14	7
95°	35	33	27	33	35	35
105°	108	107	102	107	108	114
115°	192	192	192	192	192	191
125°	278	282	281	282	278	249
135°	364	367	365	367	364	280
145°	442	445	442	445	442	276
155°	506	507	506	507	506	233
165°	550	550	552	550	550	155
175°	572	572	574	572	572	54
180°	575	575	575	575	575	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	880.1	880.1	880.1	880.1	880.1	880.1	880.1	880.1	880.1	880.1	880.1
2.5°	975.3	972.2	969.2	968.3	967.4	964.5	961.6	955.1	948.6	941.9	935.3
5°	1041.0	1041.3	1041.7	1040.8	1039.9	1036.1	1032.3	1024.4	1016.4	1007.8	999.1
7.5°	1020.8	1026.6	1032.3	1033.4	1034.5	1037.4	1040.3	1038.5	1036.7	1033.4	1030.2
10°	932.4	932.0	931.7	938.1	944.6	963.9	983.3	993.2	1003.1	1011.9	1020.8
12.5°	788.0	788.6	789.1	810.4	831.7	849.9	868.1	893.4	918.7	945.9	973.1
15°	629.6	638.5	647.3	666.3	685.2	712.6	740.1	774.0	807.9	851.0	894.1
17.5°	517.1	520.9	524.6	542.9	561.1	587.1	613.0	651.5	689.9	745.5	801.0
20°	426.1	429.6	433.0	446.2	459.3	484.2	509.1	545.8	582.4	637.4	692.4
22.5°	355.8	362.5	369.1	378.0	386.8	404.8	422.9	460.2	497.6	547.7	597.9
25°	313.2	316.3	319.3	326.9	334.5	351.8	369.1	393.8	418.6	468.5	518.5
27.5°	284.3	285.2	286.1	291.7	297.3	308.5	319.7	342.6	365.5	406.7	447.8
30°	260.5	262.1	263.8	268.1	272.4	280.5	288.7	304.9	321.1	357.9	394.7
32.5°	242.1	243.0	243.9	247.5	251.1	257.1	263.0	275.9	288.7	316.8	345.0
35°	226.2	226.4	226.6	229.3	232.0	237.8	243.6	254.2	264.8	285.6	306.3
37.5°	208.2	209.5	210.7	212.7	214.7	219.7	224.8	233.5	242.1	259.3	276.4
40°	193.0	194.1	195.2	197.6	199.9	203.9	207.8	215.8	223.7	238.5	253.3
42.5°	177.9	178.6	179.3	181.7	184.0	188.9	193.8	200.1	206.4	218.7	230.9
45°	160.9	162.7	164.5	167.1	169.6	173.7	177.9	184.4	190.9	201.3	211.8
47.5°	146.9	147.8	148.7	150.8	153.0	158.0	163.1	168.9	174.6	184.4	194.1
50°	132.8	133.1	133.5	135.5	137.5	142.0	146.5	153.2	159.8	168.9	177.9
52.5°	119.4	120.3	121.2	123.2	125.2	128.3	131.3	138.2	145.1	153.9	162.7
55°	107.2	107.7	108.2	109.7	111.1	114.7	118.4	124.3	130.3	138.4	146.5
57.5°	95.6	96.3	97.1	98.1	99.2	102.5	105.7	111.0	116.2	124.3	132.4
60°	83.7	84.6	85.5	86.8	88.0	90.6	93.1	97.8	102.5	109.7	116.9
62.5°	75.1	75.2	75.4	76.5	77.6	79.4	81.2	85.0	88.8	96.0	103.2
65°	65.3	65.9	66.4	66.9	67.5	68.9	70.4	73.6	76.9	82.3	87.7
67.5°	55.2	55.7	56.3	57.2	58.1	59.4	60.6	62.8	64.9	70.0	75.1
70°	42.9	42.9	42.9	44.4	45.8	48.0	50.2	51.8	53.4	57.6	61.7
72.5°	35.0	35.2	35.4	35.5	35.7	37.0	38.2	41.0	43.7	46.2	48.7
75°	28.5	28.7	28.9	29.0	29.2	29.6	29.9	30.9	31.8	34.6	37.5
77.5°	22.7	22.9	23.1	23.3	23.5	23.8	24.2	24.5	24.9	26.0	27.1
80°	17.3	17.5	17.7	17.9	18.0	18.2	18.4	18.8	19.1	19.7	20.2
82.5°	12.6	12.6	12.6	12.6	12.6	13.0	13.4	13.4	13.4	13.7	14.1
85°	7.9	7.9	7.9	8.1	8.3	8.3	8.3	8.5	8.7	8.7	8.7
87.5°	3.6	3.4	3.2	3.4	3.6	3.6	3.6	3.8	4.0	4.0	4.0
90°	13.6	13.4	13.2	13.0	12.8	12.5	12.0	11.6	11.2	10.8	9.5
92.5°	19.4	19.6	19.8	20.0	20.2	20.2	19.9	19.6	19.3	19.0	18.4
95°	35.2	35.2	35.2	35.2	35.2	35.0	34.6	34.2	33.8	33.4	32.6
97.5°	50.6	50.7	50.8	50.9	51.0	50.8	50.3	49.8	49.3	48.8	48.2
100°	68.7	68.5	68.3	68.1	67.9	67.6	67.3	67.0	66.7	66.4	65.9
102.5°	87.2	87.3	87.4	87.5	87.6	87.5	87.2	86.9	86.6	86.3	85.6
105°	107.5	107.3	107.1	106.9	106.7	106.6	106.6	106.6	106.6	106.6	105.7
107.5°	128.3	128.4	128.5	128.6	128.7	128.6	128.3	128.0	127.7	127.4	127.0
110°	149.6	149.8	150.0	150.2	150.4	150.3	149.9	149.5	149.1	148.7	148.5



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	172.2	172.2	172.2	172.2	172.2	171.9	171.4	170.9	170.4	169.9	169.9
115°	192.5	192.6	192.7	192.8	192.9	192.9	192.8	192.7	192.6	192.5	192.7
117.5°	213.3	213.6	213.9	214.2	214.5	214.6	214.6	214.6	214.6	214.6	214.8
120°	235.4	235.6	235.8	236.0	236.2	236.4	236.5	236.6	236.7	236.8	237.3
122.5°	256.7	257.0	257.3	257.6	257.9	258.2	258.5	258.8	259.1	259.4	259.6
125°	277.9	278.3	278.7	279.1	279.5	279.9	280.3	280.7	281.1	281.5	281.7
127.5°	299.1	299.5	299.9	300.3	300.7	301.2	301.8	302.4	303.0	303.6	303.8
130°	319.9	320.6	321.3	322.0	322.7	323.3	323.7	324.1	324.5	324.9	325.2
132.5°	341.6	342.1	342.6	343.1	343.6	344.1	344.6	345.1	345.6	346.1	346.3
135°	364.2	364.4	364.6	364.8	365.0	365.3	365.7	366.1	366.5	366.9	367.0
137.5°	384.1	384.4	384.7	385.0	385.3	385.7	386.2	386.7	387.2	387.7	387.4
140°	403.5	404.2	404.9	405.6	406.3	406.7	406.8	406.9	407.0	407.1	407.0
142.5°	423.4	423.9	424.4	424.9	425.4	425.7	425.8	425.9	426.0	426.1	425.9
145°	442.4	442.8	443.2	443.6	444.0	444.2	444.3	444.4	444.5	444.6	444.3
147.5°	459.5	460.1	460.7	461.3	461.9	462.2	462.2	462.2	462.2	462.2	461.9
150°	475.8	476.4	477.0	477.6	478.2	478.5	478.5	478.5	478.5	478.5	478.3
152.5°	491.6	492.1	492.6	493.1	493.6	493.8	493.6	493.4	493.2	493.0	492.9
155°	505.6	506.3	507.0	507.7	508.4	508.6	508.2	507.8	507.4	507.0	506.9
157.5°	518.7	519.3	519.9	520.5	521.1	521.2	520.8	520.4	520.0	519.6	519.5
160°	531.4	531.8	532.2	532.6	533.0	532.9	532.4	531.9	531.4	530.9	530.9
162.5°	540.9	541.6	542.3	543.0	543.7	543.8	543.3	542.8	542.3	541.8	541.7
165°	549.9	550.6	551.3	552.0	552.7	552.8	552.2	551.6	551.0	550.4	550.4
167.5°	558.0	558.6	559.2	559.8	560.4	560.4	559.8	559.2	558.6	558.0	557.9
170°	563.9	564.6	565.3	566.0	566.7	566.7	566.0	565.3	564.6	563.9	563.9
172.5°	568.4	569.1	569.8	570.5	571.2	571.3	570.7	570.1	569.5	568.9	568.9
175°	571.6	572.3	573.0	573.7	574.4	574.5	573.9	573.3	572.6	572.0	572.0
177.5°	573.4	574.1	574.8	575.5	576.2	576.3	575.7	575.1	574.5	573.9	573.9
180°	575.2	575.2	575.2	575.2	575.2	575.2	575.2	575.2	575.2	575.2	575.2



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	880.1	880.1	880.1	880.1	880.1	880.1	880.1	880.1	880.1	880.1	880.1
2.5°	934.4	933.5	924.8	916.1	907.7	899.2	892.9	886.6	875.9	865.3	858.6
5°	992.3	985.4	971.7	958.0	937.4	916.9	899.5	882.2	860.2	838.2	819.8
7.5°	1024.6	1019.0	1002.4	985.8	958.5	931.3	904.2	877.2	844.7	812.2	784.4
10°	1025.5	1030.2	1016.4	1002.7	972.1	941.4	904.6	867.8	824.1	780.5	744.6
12.5°	993.4	1013.6	1010.7	1007.8	976.6	945.4	900.6	855.9	802.3	748.7	703.8
15°	933.3	972.4	984.0	995.5	969.7	943.9	893.0	842.2	779.2	716.2	664.6
17.5°	855.9	910.7	941.2	971.7	952.9	934.2	878.4	822.7	751.8	680.9	624.8
20°	764.2	836.0	883.8	931.7	924.8	917.9	860.4	802.8	726.3	649.8	589.0
22.5°	673.7	749.4	815.5	881.5	888.5	895.6	837.5	779.4	695.7	612.0	550.1
25°	595.5	672.6	751.2	829.9	845.8	861.7	806.4	751.2	664.5	577.7	516.2
27.5°	521.0	594.3	680.9	767.5	796.3	825.2	774.7	724.2	633.8	543.4	482.1
30°	460.2	525.7	614.1	702.5	742.8	783.0	736.6	690.3	600.6	510.9	450.9
32.5°	403.6	462.2	551.0	639.7	686.5	733.2	693.1	653.1	566.9	480.6	421.3
35°	358.8	411.3	494.2	577.0	629.3	681.6	648.8	615.9	531.7	447.4	391.3
37.5°	320.4	364.4	442.2	520.0	575.5	631.1	603.7	576.2	497.0	417.8	364.8
40°	288.7	324.0	396.4	468.7	523.2	577.7	554.2	530.8	459.9	389.0	339.4
42.5°	261.4	291.9	356.9	421.8	471.8	521.8	506.2	490.7	426.5	362.3	316.3
45°	237.4	263.0	320.2	377.4	423.4	469.4	457.2	444.9	389.5	334.1	291.9
47.5°	216.1	238.1	289.2	340.3	381.6	422.9	411.5	400.2	354.3	308.5	270.1
50°	196.7	215.4	258.0	300.6	337.7	374.9	365.5	356.1	318.2	280.4	247.2
52.5°	178.2	193.8	232.0	270.3	300.2	330.2	322.9	315.7	286.5	257.3	227.1
55°	160.7	175.0	207.3	239.6	265.2	290.8	283.6	276.4	253.7	230.9	204.4
57.5°	144.9	157.3	183.5	209.6	230.0	250.4	247.0	243.6	224.6	205.7	183.8
60°	128.1	139.3	161.8	184.4	200.8	217.2	213.2	209.3	195.7	182.2	163.5
62.5°	113.1	123.0	141.1	159.1	172.5	185.8	182.9	180.1	169.8	159.5	144.0
65°	97.4	107.2	121.8	136.4	146.9	157.3	154.8	152.3	144.5	136.8	124.3
67.5°	83.2	91.3	103.9	116.5	123.6	130.6	129.2	127.7	121.8	115.8	106.1
70°	68.7	75.8	86.2	96.7	101.6	106.4	107.0	107.5	102.1	96.7	89.5
72.5°	54.3	59.9	69.6	79.4	83.2	87.0	86.8	86.6	83.4	80.1	73.6
75°	41.7	45.8	53.4	61.0	64.2	67.5	68.2	68.9	65.9	62.8	59.2
77.5°	29.9	32.8	38.6	44.4	48.0	51.6	52.0	52.3	50.9	49.4	46.0
80°	21.1	22.0	25.6	29.2	33.0	36.8	37.3	37.9	36.4	35.0	32.8
82.5°	14.6	15.2	16.4	17.7	20.7	23.8	24.5	25.3	24.5	23.8	21.5
85°	8.8	9.0	9.6	10.1	11.5	13.0	13.7	14.4	14.1	13.7	12.4
87.5°	4.0	4.0	4.1	4.3	4.7	5.1	6.0	6.9	6.3	5.8	5.2
90°	8.2	6.9	5.6	4.5	3.5	2.5	1.5	0.5	1.5	2.5	3.5
92.5°	17.8	17.2	16.6	16.0	15.4	14.8	14.2	13.6	14.2	14.8	15.4
95°	31.8	31.0	30.2	29.5	28.8	28.1	27.4	26.7	27.4	28.1	28.8
97.5°	47.6	47.0	46.4	45.8	45.3	44.8	44.3	43.8	44.3	44.8	45.3
100°	65.4	64.9	64.4	63.9	63.3	62.7	62.1	61.5	62.1	62.7	63.3
102.5°	84.9	84.2	83.5	83.0	82.7	82.4	82.1	81.8	82.1	82.4	82.7
105°	104.8	103.9	103.0	102.5	102.3	102.1	101.9	101.7	101.9	102.1	102.3
107.5°	126.6	126.2	125.8	125.6	125.5	125.4	125.3	125.2	125.3	125.4	125.5
110°	148.3	148.1	147.9	147.7	147.5	147.3	147.1	146.9	147.1	147.3	147.5



TEST NUMBER: P832129

CATALOG NUMBER: S123RDIP-S340D585U927-4F0-1E-UDD-G1

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
112.5°	169.9	169.9	169.9	169.8	169.7	169.6	169.5	169.4	169.5	169.6	169.7
115°	192.9	193.1	193.3	193.2	192.9	192.6	192.3	192.0	192.3	192.6	192.9
117.5°	215.0	215.2	215.4	215.5	215.4	215.3	215.2	215.1	215.2	215.3	215.4
120°	237.8	238.3	238.8	238.7	238.1	237.5	236.9	236.3	236.9	237.5	238.1
122.5°	259.8	260.0	260.2	260.1	259.7	259.3	258.9	258.5	258.9	259.3	259.7
125°	281.9	282.1	282.3	282.3	282.0	281.7	281.4	281.1	281.4	281.7	282.0
127.5°	304.0	304.2	304.4	304.2	303.6	303.0	302.4	301.8	302.4	303.0	303.6
130°	325.5	325.8	326.1	325.8	325.0	324.2	323.4	322.6	323.4	324.2	325.0
132.5°	346.5	346.7	346.9	346.6	345.8	345.0	344.2	343.4	344.2	345.0	345.8
135°	367.1	367.2	367.3	367.1	366.5	365.9	365.2	364.6	365.2	365.9	366.5
137.5°	387.1	386.8	386.5	386.1	385.6	385.1	384.6	384.1	384.6	385.1	385.6
140°	406.9	406.8	406.7	406.4	405.9	405.4	404.9	404.4	404.9	405.4	405.9
142.5°	425.7	425.5	425.3	424.9	424.4	423.9	423.4	422.9	423.4	423.9	424.4
145°	444.0	443.7	443.4	443.2	443.0	442.8	442.6	442.4	442.6	442.8	443.0
147.5°	461.6	461.3	461.0	460.7	460.3	459.9	459.5	459.1	459.5	459.9	460.3
150°	478.1	477.9	477.7	477.5	477.3	477.1	476.9	476.7	476.9	477.1	477.3
152.5°	492.8	492.7	492.6	492.4	492.1	491.8	491.5	491.2	491.5	491.8	492.1
155°	506.8	506.7	506.6	506.5	506.5	506.5	506.5	506.5	506.5	506.5	506.5
157.5°	519.4	519.3	519.2	519.2	519.3	519.4	519.5	519.6	519.5	519.4	519.3
160°	530.9	530.9	530.9	531.0	531.2	531.4	531.6	531.8	531.6	531.4	531.2
162.5°	541.6	541.5	541.4	541.5	541.8	542.1	542.4	542.7	542.4	542.1	541.8
165°	550.4	550.4	550.4	550.5	550.8	551.1	551.4	551.7	551.4	551.1	550.8
167.5°	557.8	557.7	557.6	557.8	558.2	558.6	559.0	559.4	559.0	558.6	558.2
170°	563.9	563.9	563.9	564.1	564.5	564.9	565.3	565.7	565.3	564.9	564.5
172.5°	568.9	568.9	568.9	569.1	569.5	569.9	570.3	570.7	570.3	569.9	569.5
175°	572.0	572.0	572.0	572.2	572.6	573.0	573.5	573.9	573.5	573.0	572.6
177.5°	573.9	573.9	573.9	574.1	574.5	574.9	575.3	575.7	575.3	574.9	574.5
180°	575.2	575.2	575.2	575.2	575.2	575.2	575.2	575.2	575.2	575.2	575.2



TEST NUMBER: P832129

CATALOG NUMBER: S123RDIP-S340D585U927-4F0-1E-UDD-G1

CANDELA DISTRIBUTION (continued):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	880.1	880.1	880.1	880.1	880.1	880.1	880.1	880.1	880.1	880.1	880.1
2.5°	851.9	841.6	831.3	823.9	816.6	807.3	798.1	797.8	797.4	790.6	783.7
5°	801.4	783.5	765.7	748.2	730.7	713.2	695.7	691.7	687.7	681.8	675.8
7.5°	756.7	728.1	699.6	677.3	654.9	637.4	619.9	608.0	596.1	586.9	577.7
10°	708.7	673.3	637.9	610.9	583.8	564.9	545.9	532.2	518.5	512.0	505.5
12.5°	658.9	620.4	582.0	555.5	529.0	506.2	483.5	471.1	458.6	449.6	440.6
15°	613.0	571.7	530.4	502.3	474.1	452.8	431.5	419.1	406.7	397.6	388.6
17.5°	568.7	527.0	485.3	456.8	428.3	409.0	389.7	377.6	365.5	359.9	354.3
20°	528.3	486.2	444.2	417.3	390.4	371.5	352.5	346.0	339.5	334.3	329.1
22.5°	488.2	447.8	407.4	381.6	355.8	342.1	328.4	323.1	317.9	313.9	310.0
25°	454.6	414.4	374.2	351.6	329.1	318.4	307.8	304.4	300.9	297.0	293.0
27.5°	420.7	382.5	344.2	326.2	308.1	299.5	290.8	286.5	282.2	278.9	275.7
30°	390.8	355.4	320.1	305.1	290.1	282.5	274.9	270.3	265.6	262.5	259.4
32.5°	361.9	330.5	299.1	286.3	273.5	266.1	258.7	254.2	249.7	246.1	242.5
35°	335.2	308.0	280.7	269.0	257.3	249.9	242.5	238.0	233.5	229.8	226.2
37.5°	311.8	287.0	262.3	251.3	240.3	233.8	227.3	222.6	217.9	214.2	210.4
40°	289.7	267.9	246.1	235.4	224.8	217.8	210.7	206.6	202.4	199.0	195.6
42.5°	270.3	250.2	230.2	219.7	209.3	202.6	195.9	191.1	186.2	184.2	182.2
45°	249.7	232.0	214.3	204.2	194.1	187.1	180.1	175.9	171.8	169.9	168.1
47.5°	231.7	215.2	198.8	188.9	179.0	172.7	166.3	163.1	159.8	157.3	154.8
50°	214.0	198.1	182.2	172.7	163.1	157.7	152.3	148.3	144.3	142.5	140.7
52.5°	197.0	182.6	168.1	158.4	148.7	143.4	138.2	134.8	131.3	127.6	123.8
55°	177.9	165.3	152.6	144.0	135.3	129.9	124.5	120.5	116.5	112.6	108.6
57.5°	162.0	149.6	137.1	129.4	121.6	116.4	111.1	106.8	102.5	99.2	96.0
60°	144.7	133.9	123.0	115.5	107.9	102.8	97.8	93.6	89.5	87.9	86.2
62.5°	128.5	118.4	108.2	101.6	94.9	90.0	85.2	82.4	79.7	78.7	77.6
65°	111.9	103.2	94.5	88.4	82.3	78.1	74.0	72.7	71.4	70.5	69.6
67.5°	96.3	88.9	81.5	76.1	70.7	67.8	64.9	63.5	62.1	61.0	59.9
70°	82.3	75.8	69.3	64.6	59.9	57.2	54.5	53.2	52.0	50.0	48.0
72.5°	67.1	62.1	57.0	53.4	49.8	47.4	45.1	42.6	40.1	38.2	36.4
75°	55.6	50.5	45.5	42.0	38.6	35.9	33.2	32.3	31.4	30.9	30.3
77.5°	42.6	38.2	33.9	31.2	28.5	27.2	26.0	25.4	24.9	24.7	24.5
80°	30.7	27.1	23.5	22.0	20.6	20.2	19.8	19.5	19.1	18.9	18.8
82.5°	19.1	17.3	15.5	15.2	14.8	14.6	14.4	14.3	14.1	13.9	13.7
85°	11.2	10.5	9.7	9.6	9.4	9.2	9.0	9.0	9.0	9.0	9.0
87.5°	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.5	4.3
90°	4.5	5.6	6.9	8.2	9.5	10.8	11.2	11.6	12.0	12.5	12.8
92.5°	16.0	16.6	17.2	17.8	18.4	19.0	19.3	19.6	19.9	20.2	20.2
95°	29.5	30.2	31.0	31.8	32.6	33.4	33.8	34.2	34.6	35.0	35.2
97.5°	45.8	46.4	47.0	47.6	48.2	48.8	49.3	49.8	50.3	50.8	51.0
100°	63.9	64.4	64.9	65.4	65.9	66.4	66.7	67.0	67.3	67.6	67.9
102.5°	83.0	83.5	84.2	84.9	85.6	86.3	86.6	86.9	87.2	87.5	87.6
105°	102.5	103.0	103.9	104.8	105.7	106.6	106.6	106.6	106.6	106.6	106.7
107.5°	125.6	125.8	126.2	126.6	127.0	127.4	127.7	128.0	128.3	128.6	128.7
110°	147.7	147.9	148.1	148.3	148.5	148.7	149.1	149.5	149.9	150.3	150.4



TEST NUMBER: P832129

CATALOG NUMBER: S123RDIP-S340D585U927-4F0-1E-UDD-G1

CANDELA DISTRIBUTION (continued):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
112.5°	169.8	169.9	169.9	169.9	169.9	169.9	170.4	170.9	171.4	171.9	172.2
115°	193.2	193.3	193.1	192.9	192.7	192.5	192.6	192.7	192.8	192.9	192.9
117.5°	215.5	215.4	215.2	215.0	214.8	214.6	214.6	214.6	214.6	214.6	214.5
120°	238.7	238.8	238.3	237.8	237.3	236.8	236.7	236.6	236.5	236.4	236.2
122.5°	260.1	260.2	260.0	259.8	259.6	259.4	259.1	258.8	258.5	258.2	257.9
125°	282.3	282.3	282.1	281.9	281.7	281.5	281.1	280.7	280.3	279.9	279.5
127.5°	304.2	304.4	304.2	304.0	303.8	303.6	303.0	302.4	301.8	301.2	300.7
130°	325.8	326.1	325.8	325.5	325.2	324.9	324.5	324.1	323.7	323.3	322.7
132.5°	346.6	346.9	346.7	346.5	346.3	346.1	345.6	345.1	344.6	344.1	343.6
135°	367.1	367.3	367.2	367.1	367.0	366.9	366.5	366.1	365.7	365.3	365.0
137.5°	386.1	386.5	386.8	387.1	387.4	387.7	387.2	386.7	386.2	385.7	385.3
140°	406.4	406.7	406.8	406.9	407.0	407.1	407.0	406.9	406.8	406.7	406.3
142.5°	424.9	425.3	425.5	425.7	425.9	426.1	426.0	425.9	425.8	425.7	425.4
145°	443.2	443.4	443.7	444.0	444.3	444.6	444.5	444.4	444.3	444.2	444.0
147.5°	460.7	461.0	461.3	461.6	461.9	462.2	462.2	462.2	462.2	462.2	461.9
150°	477.5	477.7	477.9	478.1	478.3	478.5	478.5	478.5	478.5	478.5	478.2
152.5°	492.4	492.6	492.7	492.8	492.9	493.0	493.2	493.4	493.6	493.8	493.6
155°	506.5	506.6	506.7	506.8	506.9	507.0	507.4	507.8	508.2	508.6	508.4
157.5°	519.2	519.2	519.3	519.4	519.5	519.6	520.0	520.4	520.8	521.2	521.1
160°	531.0	530.9	530.9	530.9	530.9	530.9	531.4	531.9	532.4	532.9	533.0
162.5°	541.5	541.4	541.5	541.6	541.7	541.8	542.3	542.8	543.3	543.8	543.7
165°	550.5	550.4	550.4	550.4	550.4	550.4	551.0	551.6	552.2	552.8	552.7
167.5°	557.8	557.6	557.7	557.8	557.9	558.0	558.6	559.2	559.8	560.4	560.4
170°	564.1	563.9	563.9	563.9	563.9	563.9	564.6	565.3	566.0	566.7	566.7
172.5°	569.1	568.9	568.9	568.9	568.9	568.9	569.5	570.1	570.7	571.3	571.2
175°	572.2	572.0	572.0	572.0	572.0	572.0	572.6	573.3	573.9	574.5	574.4
177.5°	574.1	573.9	573.9	573.9	573.9	573.9	574.5	575.1	575.7	576.3	576.2
180°	575.2	575.2	575.2	575.2	575.2	575.2	575.2	575.2	575.2	575.2	575.2



TEST NUMBER: P832129

CATALOG NUMBER: S123RDIP-S340D585U927-4F0-1E-UDD-G1

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°
0°	880.1	880.1	880.1	880.1
2.5°	781.9	780.1	779.4	778.7
5°	670.2	664.6	663.4	662.1
7.5°	575.3	573.0	565.2	557.5
10°	498.3	491.1	487.8	484.6
12.5°	433.9	427.2	426.1	425.1
15°	383.9	379.2	377.6	376.0
17.5°	351.1	347.8	345.9	343.9
20°	326.7	324.4	322.9	321.5
22.5°	308.1	306.3	305.3	304.2
25°	290.3	287.6	286.7	285.8
27.5°	273.3	271.0	270.1	269.2
30°	257.4	255.5	254.2	252.9
32.5°	240.1	237.8	237.1	236.3
35°	224.8	223.4	222.6	221.9
37.5°	208.6	206.8	205.7	204.6
40°	194.7	193.8	193.2	192.7
42.5°	180.6	179.0	178.8	178.6
45°	166.5	164.9	164.5	164.2
47.5°	153.4	151.9	151.7	151.5
50°	138.7	136.8	135.3	133.9
52.5°	122.0	120.2	118.9	117.6
55°	106.6	104.6	103.6	102.5
57.5°	95.1	94.2	93.6	93.1
60°	85.7	85.2	84.8	84.4
62.5°	77.0	76.5	76.5	76.5
65°	69.1	68.6	68.0	67.5
67.5°	58.8	57.7	57.6	57.4
70°	46.4	44.7	44.6	44.4
72.5°	36.3	36.1	35.7	35.4
75°	29.9	29.6	29.6	29.6
77.5°	24.2	23.8	23.8	23.8
80°	18.6	18.4	18.6	18.8
82.5°	13.7	13.7	13.5	13.4
85°	8.8	8.7	8.7	8.7
87.5°	4.3	4.3	4.3	4.3
90°	13.0	13.2	13.4	13.6
92.5°	20.0	19.8	19.6	19.4
95°	35.2	35.2	35.2	35.2
97.5°	50.9	50.8	50.7	50.6
100°	68.1	68.3	68.5	68.7
102.5°	87.5	87.4	87.3	87.2
105°	106.9	107.1	107.3	107.5
107.5°	128.6	128.5	128.4	128.3
110°	150.2	150.0	149.8	149.6



TEST NUMBER: P832129

CATALOG NUMBER: S123RDIP-S340D585U927-4F0-1E-UDD-G1

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°
112.5°	172.2	172.2	172.2	172.2
115°	192.8	192.7	192.6	192.5
117.5°	214.2	213.9	213.6	213.3
120°	236.0	235.8	235.6	235.4
122.5°	257.6	257.3	257.0	256.7
125°	279.1	278.7	278.3	277.9
127.5°	300.3	299.9	299.5	299.1
130°	322.0	321.3	320.6	319.9
132.5°	343.1	342.6	342.1	341.6
135°	364.8	364.6	364.4	364.2
137.5°	385.0	384.7	384.4	384.1
140°	405.6	404.9	404.2	403.5
142.5°	424.9	424.4	423.9	423.4
145°	443.6	443.2	442.8	442.4
147.5°	461.3	460.7	460.1	459.5
150°	477.6	477.0	476.4	475.8
152.5°	493.1	492.6	492.1	491.6
155°	507.7	507.0	506.3	505.6
157.5°	520.5	519.9	519.3	518.7
160°	532.6	532.2	531.8	531.4
162.5°	543.0	542.3	541.6	540.9
165°	552.0	551.3	550.6	549.9
167.5°	559.8	559.2	558.6	558.0
170°	566.0	565.3	564.6	563.9
172.5°	570.5	569.8	569.1	568.4
175°	573.7	573.0	572.3	571.6
177.5°	575.5	574.8	574.1	573.4
180°	575.2	575.2	575.2	575.2



TEST NUMBER: P832129

CATALOG NUMBER: S123RDIP-S340D585U927-4F0-1E-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	7.79	8.54	8.82	9.57	10.95	12.45	13.20	13.48	14.23	15.62
	3H	9.00	9.68	10.04	10.72	12.12	13.95	14.62	14.99	15.66	17.06
	4H	9.38	10.02	10.43	11.06	12.47	14.43	15.07	15.48	16.11	17.52
	6H	9.66	10.24	10.72	11.29	12.71	14.74	15.32	15.80	16.37	17.79
	8H	9.74	10.30	10.81	11.36	12.78	14.82	15.37	15.88	16.43	17.85
	12H	9.79	10.32	10.86	11.38	12.81	14.84	15.37	15.92	16.43	17.87
4H	2H	8.50	9.14	9.56	10.18	11.59	12.44	13.07	13.50	14.12	15.52
	3H	9.86	10.39	10.93	11.46	12.88	14.09	14.62	15.16	15.69	17.11
	4H	10.32	10.80	11.39	11.86	13.31	14.69	15.18	15.76	16.24	17.68
	6H	10.68	11.10	11.76	12.18	13.62	15.13	15.54	16.21	16.63	18.06
	8H	10.80	11.19	11.88	12.27	13.72	15.26	15.64	16.34	16.72	18.17
	12H	10.88	11.23	11.97	12.32	13.77	15.31	15.66	16.41	16.75	18.21
8H	4H	10.62	11.01	11.71	12.09	13.54	14.65	15.04	15.74	16.12	17.57
	6H	11.09	11.41	12.19	12.52	13.97	15.15	15.47	16.25	16.59	18.04
	8H	11.28	11.56	12.39	12.66	14.13	15.33	15.61	16.44	16.71	18.18
	12H	11.42	11.66	12.53	12.76	14.27	15.45	15.69	16.56	16.79	18.30
12H	4H	10.63	10.98	11.73	12.07	13.53	14.60	14.95	15.70	16.04	17.50
	6H	11.14	11.42	12.25	12.53	14.00	15.12	15.40	16.23	16.50	17.97
	8H	11.36	11.61	12.47	12.70	14.21	15.31	15.56	16.42	16.65	18.16