

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: P831155

Luminaire Tested: S123DIP-S1000D805U830-4F0-1E-UDD-G4

Issue Date: 05/03/2024

Test Information

Test Method: LM-79-2019
Report Number: P831155
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2301-905-1, G3-1807-864-17)
Test Lab: INNOVATION CENTER
Issue Date: 05/03/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S123DIP-S1000D805U830-4F0-1E-UDD-G4
Description: DEFINE 3 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 1000 LUMENS PER FOOT, GRAZE OPTIC
UPLIGHT 805 LUMENS PER FOOT, BATWING OPTIC
Light Source: -
Ballast/Driver: -

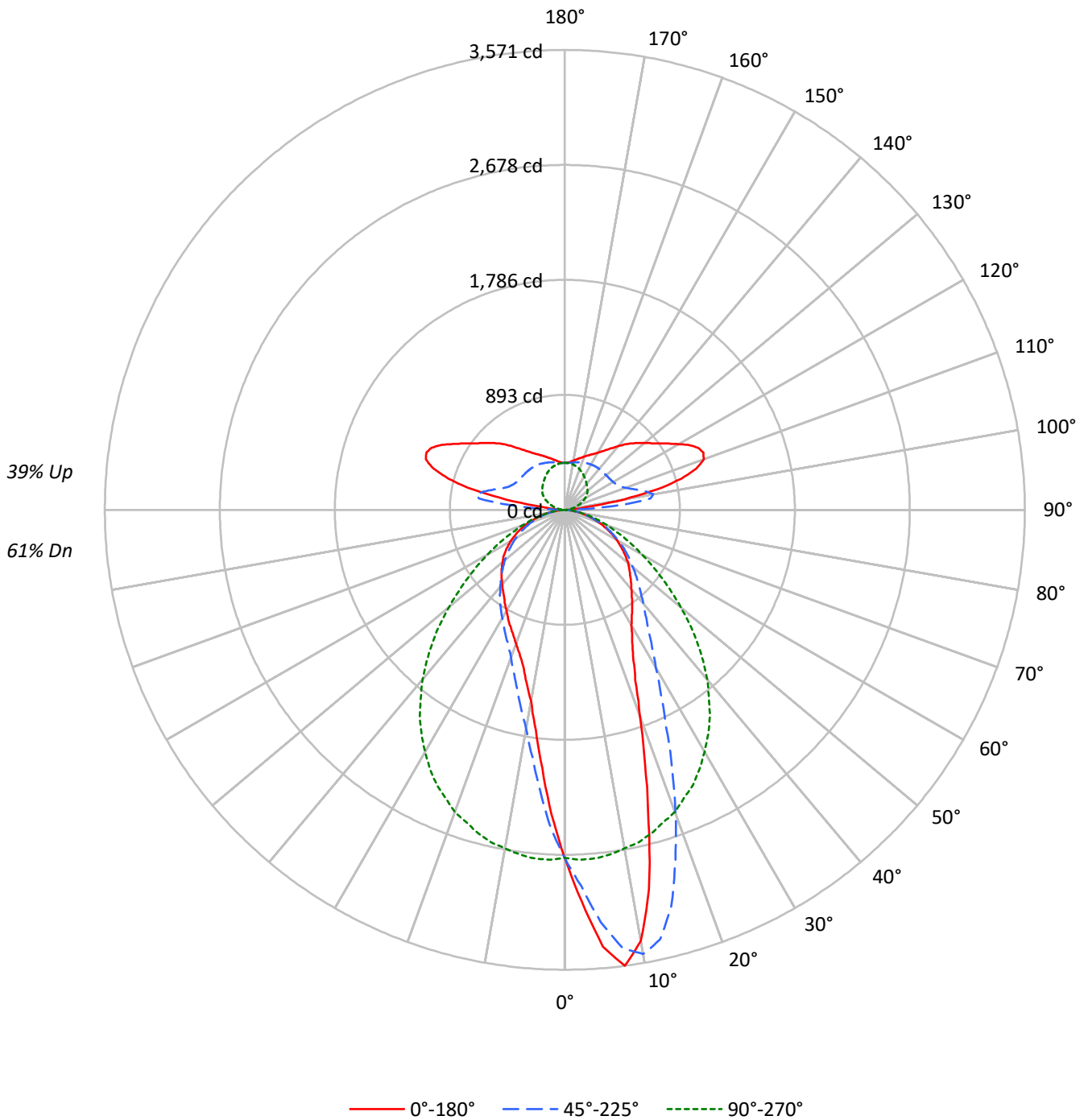
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7085.6 lumens
Efficiency: N/A
Efficacy: 127.2 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: Semi-Direct

Input Watts (W): 55.7
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	110	110	110	110	103	103	103	103	90	90	90	78	78	78	67	67	67	61				
1	101	97	93	90	94	91	88	85	80	77	75	69	68	66	60	59	57	53				
2	92	85	79	74	86	80	75	71	71	67	63	62	59	56	53	51	49	45				
3	85	76	69	63	79	71	65	60	63	58	54	55	52	48	48	45	43	39				
4	78	68	60	54	73	64	57	52	57	51	47	50	46	42	44	40	38	35				
5	72	61	53	47	67	57	50	45	51	45	41	45	41	37	40	36	34	31				
6	67	55	47	41	63	52	45	40	47	41	36	41	37	33	36	33	30	27				
7	62	50	42	37	58	48	40	35	43	37	33	38	33	30	34	30	27	25				
8	58	46	38	33	54	44	37	32	39	34	29	35	30	27	31	28	25	23				
9	54	42	35	30	51	40	33	29	36	31	27	33	28	25	29	25	23	21				
10	51	39	32	27	48	37	31	26	34	28	25	30	26	23	27	24	21	19				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°	135°	180°
0°	29096	29096	29096	29096	29096
5°	36798	34731	29356	23658	21740
10°	37154	38278	29161	18859	16479
15°	27984	35539	28962	15970	13936
20°	19498	28758	28593	13966	12659
25°	14867	22116	27962	12849	11873
30°	12862	17571	26956	12059	11241
35°	11934	14834	25796	11489	10796
40°	11297	13307	24164	10946	10645
45°	10922	12317	22092	10520	10578
50°	10734	11531	19639	10134	10523
55°	10335	10958	17231	9770	10569
60°	9965	10342	14852	9425	10396
65°	9360	9760	12811	9057	10190
70°	8645	9020	10895	8447	9593
75°	7827	8085	9337	7852	8763
80°	6453	7073	7389	6843	7389
85°	5113	5730	5422	5805	5891

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 80°
 Vertical Angle: 45°
 Luminance: 25224 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	255.6	3.6
10°-20°	635.8	9.0
20°-30°	752.8	10.6
30°-40°	756.9	10.7
40°-50°	694.4	9.8
50°-60°	573.2	8.1
60°-70°	405.4	5.7
70°-80°	216.4	3.1
80°-90°	56.9	0.8
90°-100°	197.5	2.8
100°-110°	578.3	8.2
110°-120°	564.8	8.0
120°-130°	449.8	6.3
130°-140°	354.9	5.0
140°-150°	264.7	3.7
150°-160°	184.6	2.6
160°-170°	108.4	1.5
170°-180°	35.3	0.5
0°-30°	1644.1	23.2
0°-40°	2401.0	33.9
0°-60°	3668.6	51.8
0°-90°	4347.4	61.4
90°-120°	1340.6	18.9
90°-150°	2410.0	34.0
90°-180°	2738.0	38.6
0°-180°	7085.6	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	2703	2703	2703	2703	2703	
5°	3406	3214	2717	2190	2012	324
15°	2511	3189	2599	1433	1251	694
25°	1252	1862	2354	1082	1000	591
35°	908	1129	1963	874	822	571
45°	718	809	1451	691	695	556
55°	551	584	918	521	563	493
65°	368	383	503	356	400	365
75°	188	194	224	189	211	198
85°	41	46	44	47	48	46
90°	21	18	2	18	21	14
95°	86	437	25	437	86	139
105°	937	592	86	592	937	935
115°	1140	453	151	453	1140	1112
125°	899	423	210	423	899	814
135°	729	417	246	417	729	565
145°	570	412	281	412	570	362
155°	472	399	319	399	472	220
165°	412	382	349	382	412	118
175°	371	366	363	366	371	36
180°	364	364	364	364	364	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	2703.1	2703.1	2703.1	2703.1	2703.1	2703.1	2703.1	2703.1	2703.1	2703.1	2703.1
2.5°	3046.8	3043.7	3040.5	3024.9	3009.2	3001.7	2994.1	2971.6	2949.0	2923.9	2898.8
5°	3405.6	3414.3	3423.1	3413.1	3403.1	3372.3	3341.6	3300.8	3260.1	3214.3	3168.5
7.5°	3571.1	3576.2	3581.2	3574.9	3568.6	3560.5	3552.3	3515.9	3479.6	3432.5	3385.5
10°	3399.3	3410.6	3421.9	3446.3	3470.8	3498.4	3526.0	3521.0	3515.9	3502.1	3488.4
12.5°	3021.7	3035.5	3049.3	3098.2	3147.2	3209.9	3272.6	3326.5	3380.5	3418.1	3455.7
15°	2511.2	2549.5	2587.7	2632.3	2676.8	2769.0	2861.2	2974.7	3088.2	3189.2	3290.2
17.5°	2068.4	2082.9	2097.3	2144.9	2192.6	2308.6	2424.7	2555.7	2686.8	2854.3	3021.7
20°	1702.2	1715.3	1728.5	1791.2	1853.9	1944.9	2035.8	2183.2	2330.6	2510.6	2690.6
22.5°	1430.0	1450.7	1471.4	1506.5	1541.6	1628.8	1716.0	1847.0	1978.1	2176.9	2375.7
25°	1251.8	1266.9	1281.9	1303.3	1324.6	1394.2	1463.8	1571.7	1679.6	1862.1	2044.6
27.5°	1130.2	1136.4	1142.7	1164.0	1185.4	1230.5	1275.7	1368.5	1461.3	1616.2	1771.1
30°	1034.8	1039.2	1043.6	1062.4	1081.3	1112.0	1142.7	1209.8	1276.9	1413.7	1550.4
32.5°	968.4	971.5	974.6	989.1	1003.5	1025.4	1047.4	1096.3	1145.2	1258.1	1371.0
35°	908.2	910.0	911.9	922.6	933.2	949.5	965.9	1002.9	1039.9	1128.9	1218.0
37.5°	855.5	858.0	860.5	866.8	873.0	887.5	901.9	931.4	960.8	1029.2	1097.6
40°	804.0	808.4	812.8	817.2	821.6	833.5	845.4	868.0	890.6	947.0	1003.5
42.5°	760.1	764.5	768.9	770.8	772.7	779.6	786.5	807.2	827.9	869.9	911.9
45°	717.5	719.4	721.3	723.1	725.0	730.7	736.3	754.5	772.7	809.1	845.4
47.5°	678.6	678.6	678.6	679.9	681.1	686.1	691.1	704.3	717.5	745.7	773.9
50°	641.0	641.0	641.0	639.1	637.2	640.3	643.5	653.5	663.6	688.6	713.7
52.5°	595.8	595.8	595.8	596.4	597.1	597.1	597.1	605.9	614.6	637.2	659.8
55°	550.7	553.2	555.7	553.8	551.9	553.2	554.4	560.1	565.7	583.9	602.1
57.5°	505.5	506.8	508.0	507.4	506.8	507.4	508.0	513.0	518.0	531.8	545.6
60°	462.9	462.9	462.9	461.6	460.3	461.6	462.9	465.4	467.9	480.4	493.0
62.5°	415.2	415.8	416.4	417.1	417.7	416.4	415.2	418.3	421.5	430.9	440.3
65°	367.5	368.2	368.8	370.7	372.5	371.3	370.0	373.2	376.3	383.2	390.1
67.5°	324.9	323.6	322.4	323.0	323.6	325.5	327.4	328.0	328.6	336.2	343.7
70°	274.7	276.0	277.2	276.6	276.0	276.6	277.2	279.1	281.0	286.6	292.3
72.5°	229.5	230.2	230.8	230.8	230.8	232.1	233.3	235.2	237.1	240.2	243.3
75°	188.2	188.2	188.2	189.4	190.7	191.3	191.9	191.9	191.9	194.4	196.9
77.5°	143.0	146.1	149.3	148.6	148.0	149.3	150.5	152.4	154.3	155.5	156.8
80°	104.1	104.1	104.1	104.7	105.4	107.2	109.1	110.4	111.6	114.1	116.7
82.5°	66.5	67.1	67.7	69.6	71.5	72.8	74.0	75.9	77.8	77.8	77.8
85°	41.4	40.1	38.9	40.1	41.4	42.6	43.9	44.5	45.2	46.4	47.7
87.5°	20.1	20.1	20.1	20.1	20.1	20.7	21.3	21.3	21.3	21.3	21.3
90°	21.4	22.1	21.4	20.6	21.4	19.9	19.2	18.4	17.7	18.4	16.2
92.5°	39.1	40.5	39.8	42.7	44.2	49.4	56.7	73.0	102.4	137.1	151.8
95°	85.5	88.4	93.6	100.2	114.2	140.7	179.8	265.3	354.4	437.0	389.1
97.5°	175.4	183.5	201.2	229.2	278.5	362.6	459.8	609.4	694.9	672.1	501.8
100°	462.0	461.3	490.0	543.8	618.3	722.9	809.1	868.8	843.0	697.8	471.6
102.5°	731.7	753.1	776.0	815.7	869.5	926.3	967.5	955.0	850.4	649.9	427.4
105°	937.3	941.0	964.6	992.6	1026.5	1045.7	1031.7	958.0	804.0	592.5	392.8
107.5°	1071.5	1079.6	1089.1	1102.4	1106.8	1086.9	1029.4	913.8	737.6	541.6	367.7
110°	1148.1	1149.6	1151.0	1145.1	1124.5	1072.9	980.1	844.5	675.7	499.6	354.4



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	1163.6	1162.8	1155.5	1134.1	1092.1	1022.1	915.2	776.0	621.9	471.6	347.1
115°	1140.0	1136.3	1121.6	1089.1	1033.9	953.5	845.2	717.0	580.7	453.2	346.3
117.5°	1088.4	1083.2	1061.1	1025.0	967.5	884.3	784.8	671.3	553.4	440.7	347.1
120°	1020.6	1016.2	998.5	957.2	899.0	824.6	736.2	636.7	532.8	432.6	350.0
122.5°	957.2	951.3	931.4	895.3	845.2	777.4	697.1	609.4	515.8	427.4	355.2
125°	899.0	893.9	875.4	843.0	795.9	736.9	666.2	585.8	501.8	423.0	360.3
127.5°	848.9	844.5	827.5	799.5	756.8	702.3	637.4	564.5	488.6	420.8	366.2
130°	807.6	801.7	786.3	759.7	720.7	670.6	610.9	544.6	478.2	418.6	372.1
132.5°	767.1	763.4	750.2	723.6	687.5	640.4	585.8	526.1	468.7	417.8	376.6
135°	728.8	723.6	710.4	688.3	652.2	610.2	562.3	509.9	460.6	417.1	381.0
137.5°	688.3	683.8	672.8	649.9	619.0	581.4	538.7	494.5	453.2	415.6	383.9
140°	645.5	646.3	634.5	613.8	585.8	554.1	518.8	481.2	446.6	414.9	386.9
142.5°	605.7	606.5	596.2	578.5	555.6	529.1	499.6	468.7	440.7	413.4	389.1
145°	569.6	568.1	562.3	546.8	528.4	507.0	483.4	459.1	435.5	411.9	389.8
147.5°	538.7	537.9	532.0	521.0	506.2	490.8	470.9	451.0	430.3	409.7	389.8
150°	512.1	512.1	507.7	499.6	488.6	474.6	459.1	442.1	425.2	406.8	389.8
152.5°	490.0	490.0	487.8	480.5	472.4	461.3	448.0	434.0	419.3	403.1	387.6
155°	472.4	471.6	470.1	464.2	457.6	448.8	437.7	425.9	413.4	398.7	386.1
157.5°	455.4	455.4	453.9	449.5	443.6	436.2	427.4	417.1	406.8	395.0	383.9
160°	439.2	439.9	439.9	435.5	430.3	425.2	417.8	409.7	400.1	390.6	382.5
162.5°	424.5	425.2	425.2	421.5	418.6	414.1	407.5	400.9	393.5	386.1	379.5
165°	411.9	411.9	412.7	409.7	406.8	403.1	397.9	393.5	387.6	381.7	376.6
167.5°	399.4	399.4	400.1	397.9	396.5	393.5	390.6	386.9	381.7	377.3	373.6
170°	388.3	388.3	389.1	387.6	386.9	385.4	382.5	380.2	376.6	372.9	370.7
172.5°	378.0	378.8	380.2	378.8	378.8	378.0	375.8	374.3	371.4	369.2	368.4
175°	370.7	371.4	372.1	371.4	371.4	371.4	369.9	369.2	367.7	366.2	366.2
177.5°	365.5	365.5	367.0	366.2	367.0	367.0	366.2	365.5	364.8	364.0	364.8
180°	364.0	364.0	364.0	364.0	364.0	364.0	364.0	364.0	364.0	364.0	364.0



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	2703.1	2703.1	2703.1	2703.1	2703.1	2703.1	2703.1	2703.1	2703.1	2703.1	2703.1
2.5°	2891.3	2883.8	2856.2	2828.6	2797.2	2765.8	2742.6	2719.4	2684.9	2650.4	2622.2
5°	3133.4	3098.2	3039.9	2981.6	2902.6	2823.5	2770.2	2716.9	2645.4	2573.9	2516.9
7.5°	3325.3	3265.1	3183.5	3102.0	2998.5	2895.0	2797.2	2699.4	2590.2	2481.1	2392.0
10°	3447.6	3406.8	3312.7	3218.7	3080.1	2941.5	2804.7	2668.0	2527.5	2387.0	2269.1
12.5°	3459.5	3463.3	3376.7	3290.2	3133.4	2976.6	2810.4	2644.2	2467.3	2290.4	2153.1
15°	3354.8	3419.4	3371.7	3324.0	3166.0	3007.9	2803.5	2599.0	2395.2	2191.4	2032.7
17.5°	3160.3	3298.9	3305.8	3312.7	3154.7	2996.6	2770.2	2543.8	2313.0	2082.2	1915.4
20°	2895.0	3099.5	3169.7	3240.0	3111.4	2982.8	2739.5	2496.2	2237.8	1979.4	1804.4
22.5°	2624.1	2872.5	3001.0	3129.6	3034.3	2938.9	2679.9	2420.9	2148.1	1875.3	1697.8
25°	2315.5	2586.5	2784.0	2981.6	2923.3	2864.9	2609.7	2354.4	2064.0	1773.7	1592.4
27.5°	2046.5	2321.8	2560.1	2798.5	2785.9	2773.4	2520.0	2266.6	1969.3	1672.1	1497.1
30°	1806.9	2063.4	2330.0	2596.5	2627.2	2658.0	2413.4	2168.8	1870.9	1573.0	1404.2
32.5°	1594.9	1818.8	2104.8	2390.8	2451.0	2511.2	2290.4	2069.7	1774.9	1480.1	1317.7
35°	1421.2	1624.4	1910.4	2196.4	2271.6	2346.9	2155.0	1963.1	1675.8	1388.6	1233.7
37.5°	1267.5	1437.5	1716.6	1995.7	2087.9	2180.1	2008.2	1836.4	1567.3	1298.3	1155.9
40°	1140.2	1276.9	1533.4	1790.0	1896.6	2003.2	1861.5	1719.7	1464.5	1209.2	1078.1
42.5°	1033.6	1155.3	1387.9	1620.6	1722.9	1825.1	1705.3	1585.5	1358.5	1131.4	1011.6
45°	942.6	1039.9	1251.2	1462.6	1559.8	1657.0	1554.1	1451.3	1251.2	1051.1	939.5
47.5°	857.3	940.8	1121.4	1302.0	1388.6	1475.1	1394.8	1314.6	1145.2	975.9	874.9
50°	780.8	847.9	1006.0	1164.0	1239.3	1314.6	1243.7	1172.8	1033.6	894.4	806.5
52.5°	714.4	768.9	901.3	1033.6	1098.2	1162.8	1101.9	1041.1	930.7	820.3	743.8
55°	648.5	694.9	809.7	924.5	968.4	1012.3	965.2	918.2	829.1	740.1	675.5
57.5°	587.0	628.4	722.5	816.6	850.5	884.3	841.7	799.0	731.9	664.8	610.9
60°	526.8	560.7	639.1	717.5	738.2	758.9	724.4	689.9	642.9	595.8	547.5
62.5°	471.0	501.7	560.1	618.4	632.2	646.0	619.6	593.3	557.6	521.8	484.2
65°	413.3	436.5	484.2	531.8	540.6	549.4	526.2	503.0	476.0	449.1	421.5
67.5°	360.0	376.3	415.2	454.1	454.7	455.3	436.5	417.7	402.6	387.6	365.6
70°	307.9	323.6	349.3	375.1	375.7	376.3	361.3	346.2	334.9	323.6	307.3
72.5°	254.6	265.9	285.4	304.8	303.6	302.3	292.9	283.5	274.7	265.9	254.0
75°	206.3	215.7	228.9	242.1	238.3	234.6	229.5	224.5	217.0	209.5	202.0
77.5°	162.4	168.1	175.6	183.1	180.6	178.1	173.7	169.3	163.7	158.0	154.9
80°	119.2	121.7	126.7	131.7	130.5	129.2	124.2	119.2	117.9	116.7	112.3
82.5°	80.9	84.0	85.3	86.6	85.9	85.3	81.5	77.8	76.5	75.3	74.6
85°	48.3	48.9	49.5	50.2	48.3	46.4	45.2	43.9	43.9	43.9	43.3
87.5°	22.0	22.6	22.6	22.6	22.0	21.3	20.1	18.8	19.4	20.1	20.1
90°	14.0	11.8	9.6	8.1	6.6	4.4	2.9	1.5	2.9	4.4	6.6
92.5°	113.5	74.4	50.8	37.6	30.2	23.6	16.2	11.1	16.2	23.6	30.2
95°	268.2	158.4	95.8	67.1	47.9	35.4	27.3	25.1	27.3	35.4	47.9
97.5°	298.4	171.0	109.1	77.4	58.2	47.2	40.5	39.8	40.5	47.2	58.2
100°	277.8	168.7	117.2	88.4	70.7	60.4	55.3	54.5	55.3	60.4	70.7
102.5°	260.1	171.7	126.7	101.0	85.5	75.9	71.5	70.0	71.5	75.9	85.5
105°	253.5	177.6	137.8	115.0	101.0	92.1	87.7	85.5	87.7	92.1	101.0
107.5°	252.0	187.2	151.8	130.4	117.2	108.3	103.9	101.7	103.9	108.3	117.2
110°	255.7	199.7	166.5	145.9	133.4	125.3	121.6	119.4	121.6	125.3	133.4



TEST NUMBER: P831155

CATALOG NUMBER: S123DIP-S1000D805U830-4F0-1E-UDD-G4

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
112.5°	263.1	212.2	182.0	162.1	149.6	141.5	137.8	135.6	137.8	141.5	149.6
115°	271.2	226.2	198.2	178.3	165.8	158.4	154.0	151.1	154.0	158.4	165.8
117.5°	281.5	241.0	213.0	194.5	180.5	173.9	170.2	166.5	170.2	173.9	180.5
120°	293.3	255.0	228.4	210.0	196.0	188.6	185.0	182.8	185.0	188.6	196.0
122.5°	304.3	269.7	243.9	224.0	210.8	202.6	199.0	196.8	199.0	202.6	210.8
125°	316.1	283.7	257.9	238.0	224.0	215.9	211.5	210.0	211.5	215.9	224.0
127.5°	325.7	296.2	271.2	251.3	235.8	227.7	222.5	220.3	222.5	227.7	235.8
130°	335.3	307.3	283.0	263.1	247.6	238.8	232.1	229.9	232.1	238.8	247.6
132.5°	344.1	316.9	293.3	274.1	258.7	247.6	240.2	237.3	240.2	247.6	258.7
135°	351.5	326.4	303.6	283.7	268.2	257.2	249.1	246.1	249.1	257.2	268.2
137.5°	357.4	333.1	311.0	292.5	277.1	265.3	257.2	254.2	257.2	265.3	277.1
140°	361.8	339.7	318.3	299.9	285.2	273.4	266.0	262.3	266.0	273.4	285.2
142.5°	366.2	344.9	324.2	307.3	292.5	282.2	274.1	271.2	274.1	282.2	292.5
145°	369.2	349.3	330.1	313.2	300.7	289.6	283.0	280.8	283.0	289.6	300.7
147.5°	371.4	353.0	335.3	320.6	308.0	298.4	291.8	290.3	291.8	298.4	308.0
150°	372.1	356.7	339.7	326.4	316.1	306.5	300.7	299.9	300.7	306.5	316.1
152.5°	373.6	358.9	344.9	332.3	323.5	315.4	309.5	309.5	309.5	315.4	323.5
155°	373.6	361.8	349.3	339.0	330.9	323.5	319.1	319.1	319.1	323.5	330.9
157.5°	374.3	363.3	353.0	344.9	337.5	330.9	327.2	326.4	327.2	330.9	337.5
160°	374.3	365.5	356.7	349.3	344.1	338.2	335.3	335.3	335.3	338.2	344.1
162.5°	373.6	366.2	358.9	353.0	348.6	344.1	341.9	341.9	341.9	344.1	348.6
165°	372.1	367.0	361.1	355.9	353.0	349.3	347.8	348.6	347.8	349.3	353.0
167.5°	371.4	367.0	362.6	358.9	356.7	353.7	353.0	353.7	353.0	353.7	356.7
170°	369.2	366.2	362.6	361.1	359.6	357.4	356.7	358.1	356.7	357.4	359.6
172.5°	368.4	366.2	363.3	362.6	361.8	360.3	360.3	361.1	360.3	360.3	361.8
175°	367.0	365.5	364.0	363.3	363.3	361.8	362.6	363.3	362.6	361.8	363.3
177.5°	366.2	364.8	364.0	364.0	364.0	363.3	364.0	364.8	364.0	363.3	364.0
180°	364.0	364.0	364.0	364.0	364.0	364.0	364.0	364.0	364.0	364.0	364.0



TEST NUMBER: P831155

CATALOG NUMBER: S123DIP-S1000D805U830-4F0-1E-UDD-G4

CANDELA DISTRIBUTION (continued):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	2703.1	2703.1	2703.1	2703.1	2703.1	2703.1	2703.1	2703.1	2703.1	2703.1	2703.1
2.5°	2594.0	2569.5	2545.1	2526.3	2507.4	2475.5	2443.5	2436.0	2428.4	2417.8	2407.1
5°	2459.8	2399.6	2339.4	2285.4	2231.5	2189.5	2147.4	2119.9	2092.3	2072.2	2052.1
7.5°	2303.0	2212.7	2122.4	2058.4	1994.4	1933.6	1872.7	1853.3	1833.9	1807.5	1781.2
10°	2151.2	2051.5	1951.8	1868.4	1784.9	1725.4	1665.8	1641.9	1618.1	1584.9	1551.6
12.5°	2015.7	1906.6	1797.5	1713.4	1629.4	1571.7	1514.0	1479.5	1445.0	1426.2	1407.4
15°	1874.0	1757.3	1640.7	1562.9	1485.2	1433.1	1381.0	1350.9	1320.8	1302.6	1284.5
17.5°	1748.6	1633.2	1517.8	1443.1	1368.5	1320.8	1273.2	1246.8	1220.5	1206.7	1192.9
20°	1629.4	1516.5	1403.6	1330.9	1258.1	1219.2	1180.3	1163.4	1146.5	1135.2	1123.9
22.5°	1520.3	1409.3	1298.3	1236.2	1174.1	1142.7	1111.4	1099.4	1087.5	1078.1	1068.7
25°	1411.1	1312.1	1213.0	1160.3	1107.6	1081.9	1056.2	1044.2	1032.3	1022.9	1013.5
27.5°	1322.1	1227.4	1132.7	1087.5	1042.4	1022.3	1002.2	992.8	983.4	974.6	965.9
30°	1235.5	1150.9	1066.2	1027.3	988.4	970.2	952.1	942.6	933.2	925.1	916.9
32.5°	1155.3	1082.5	1009.8	974.0	938.3	923.2	908.2	896.9	885.6	879.3	873.0
35°	1078.7	1013.5	948.3	918.8	889.3	874.3	859.2	849.8	840.4	835.4	830.4
37.5°	1013.5	955.2	896.9	868.6	840.4	826.0	811.6	803.4	795.3	793.4	791.5
40°	947.0	896.9	846.7	819.1	791.5	779.0	766.4	761.4	756.4	755.1	753.9
42.5°	891.8	842.9	794.0	768.9	743.8	733.2	722.5	720.0	717.5	719.4	721.3
45°	827.9	787.1	746.3	723.1	699.9	691.1	682.4	680.5	678.6	682.4	686.1
47.5°	773.9	736.3	698.7	676.7	654.8	648.5	642.2	641.6	641.0	646.0	651.0
50°	718.7	682.4	646.0	628.4	610.9	605.2	599.6	601.5	603.3	611.5	619.6
52.5°	667.3	633.4	599.6	583.3	567.0	563.2	559.4	563.8	568.2	577.0	585.8
55°	610.9	580.1	549.4	536.9	524.3	520.6	516.8	525.6	534.4	542.5	550.7
57.5°	556.9	530.0	503.0	491.7	480.4	479.8	479.2	487.3	495.5	504.2	513.0
60°	499.2	476.7	454.1	445.3	436.5	437.8	439.0	448.4	457.8	464.7	471.6
62.5°	446.5	427.7	408.9	400.8	392.6	395.7	398.9	408.3	417.7	425.9	434.0
65°	393.9	378.2	362.5	356.9	351.2	355.6	360.0	368.2	376.3	382.0	387.6
67.5°	343.7	330.5	317.4	313.0	308.6	313.0	317.4	325.5	333.7	339.3	344.9
70°	291.0	280.3	269.7	266.5	263.4	268.4	273.4	280.3	287.2	292.9	298.5
72.5°	242.1	233.9	225.8	225.2	224.5	228.9	233.3	240.2	247.1	250.9	254.6
75°	194.4	190.0	185.6	185.0	184.4	188.8	193.2	196.9	200.7	203.8	207.0
77.5°	151.8	148.0	144.3	144.9	145.5	148.6	151.8	155.5	159.3	161.2	163.1
80°	107.9	106.6	105.4	106.6	107.9	110.4	112.9	115.4	117.9	119.2	120.4
82.5°	74.0	72.8	71.5	73.4	75.3	77.1	79.0	80.9	82.8	83.4	84.0
85°	42.6	44.5	46.4	46.4	46.4	47.0	47.7	48.3	48.9	48.3	47.7
87.5°	20.1	20.7	21.3	21.3	21.3	22.0	22.6	22.6	22.6	22.0	21.3
90°	8.1	9.6	11.8	14.0	16.2	18.4	17.7	18.4	19.2	19.9	21.4
92.5°	37.6	50.8	74.4	113.5	151.8	137.1	102.4	73.0	56.7	49.4	44.2
95°	67.1	95.8	158.4	268.2	389.1	437.0	354.4	265.3	179.8	140.7	114.2
97.5°	77.4	109.1	171.0	298.4	501.8	672.1	694.9	609.4	459.8	362.6	278.5
100°	88.4	117.2	168.7	277.8	471.6	697.8	843.0	868.8	809.1	722.9	618.3
102.5°	101.0	126.7	171.7	260.1	427.4	649.9	850.4	955.0	967.5	926.3	869.5
105°	115.0	137.8	177.6	253.5	392.8	592.5	804.0	958.0	1031.7	1045.7	1026.5
107.5°	130.4	151.8	187.2	252.0	367.7	541.6	737.6	913.8	1029.4	1086.9	1106.8
110°	145.9	166.5	199.7	255.7	354.4	499.6	675.7	844.5	980.1	1072.9	1124.5



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CATALOG NUMBER: S123DIP-S1000D805U830-4F0-1E-UDD-G4

CANDELA DISTRIBUTION (continued):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
112.5°	162.1	182.0	212.2	263.1	347.1	471.6	621.9	776.0	915.2	1022.1	1092.1
115°	178.3	198.2	226.2	271.2	346.3	453.2	580.7	717.0	845.2	953.5	1033.9
117.5°	194.5	213.0	241.0	281.5	347.1	440.7	553.4	671.3	784.8	884.3	967.5
120°	210.0	228.4	255.0	293.3	350.0	432.6	532.8	636.7	736.2	824.6	899.0
122.5°	224.0	243.9	269.7	304.3	355.2	427.4	515.8	609.4	697.1	777.4	845.2
125°	238.0	257.9	283.7	316.1	360.3	423.0	501.8	585.8	666.2	736.9	795.9
127.5°	251.3	271.2	296.2	325.7	366.2	420.8	488.6	564.5	637.4	702.3	756.8
130°	263.1	283.0	307.3	335.3	372.1	418.6	478.2	544.6	610.9	670.6	720.7
132.5°	274.1	293.3	316.9	344.1	376.6	417.8	468.7	526.1	585.8	640.4	687.5
135°	283.7	303.6	326.4	351.5	381.0	417.1	460.6	509.9	562.3	610.2	652.2
137.5°	292.5	311.0	333.1	357.4	383.9	415.6	453.2	494.5	538.7	581.4	619.0
140°	299.9	318.3	339.7	361.8	386.9	414.9	446.6	481.2	518.8	554.1	585.8
142.5°	307.3	324.2	344.9	366.2	389.1	413.4	440.7	468.7	499.6	529.1	555.6
145°	313.2	330.1	349.3	369.2	389.8	411.9	435.5	459.1	483.4	507.0	528.4
147.5°	320.6	335.3	353.0	371.4	389.8	409.7	430.3	451.0	470.9	490.8	506.2
150°	326.4	339.7	356.7	372.1	389.8	406.8	425.2	442.1	459.1	474.6	488.6
152.5°	332.3	344.9	358.9	373.6	387.6	403.1	419.3	434.0	448.0	461.3	472.4
155°	339.0	349.3	361.8	373.6	386.1	398.7	413.4	425.9	437.7	448.8	457.6
157.5°	344.9	353.0	363.3	374.3	383.9	395.0	406.8	417.1	427.4	436.2	443.6
160°	349.3	356.7	365.5	374.3	382.5	390.6	400.1	409.7	417.8	425.2	430.3
162.5°	353.0	358.9	366.2	373.6	379.5	386.1	393.5	400.9	407.5	414.1	418.6
165°	355.9	361.1	367.0	372.1	376.6	381.7	387.6	393.5	397.9	403.1	406.8
167.5°	358.9	362.6	367.0	371.4	373.6	377.3	381.7	386.9	390.6	393.5	396.5
170°	361.1	362.6	366.2	369.2	370.7	372.9	376.6	380.2	382.5	385.4	386.9
172.5°	362.6	363.3	366.2	368.4	368.4	369.2	371.4	374.3	375.8	378.0	378.8
175°	363.3	364.0	365.5	367.0	366.2	366.2	367.7	369.2	369.9	371.4	371.4
177.5°	364.0	364.0	364.8	366.2	364.8	364.0	364.8	365.5	366.2	367.0	367.0
180°	364.0	364.0	364.0	364.0	364.0	364.0	364.0	364.0	364.0	364.0	364.0



TEST NUMBER: P831155

CATALOG NUMBER: S123DIP-S1000D805U830-4F0-1E-UDD-G4

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°
0°	2703.1	2703.1	2703.1	2703.1
2.5°	2402.7	2398.3	2380.8	2363.2
5°	2037.1	2022.0	2017.0	2012.0
7.5°	1779.9	1778.7	1752.3	1726.0
10°	1553.5	1555.4	1531.6	1507.7
12.5°	1391.7	1376.0	1374.1	1372.3
15°	1270.0	1255.6	1253.1	1250.6
17.5°	1184.1	1175.3	1172.8	1170.3
20°	1118.9	1113.9	1109.5	1105.1
22.5°	1062.4	1056.2	1052.4	1048.6
25°	1007.9	1002.2	1001.0	999.7
27.5°	959.0	952.1	952.1	952.1
30°	912.5	908.2	906.3	904.4
32.5°	869.3	865.5	865.5	865.5
35°	828.5	826.6	824.1	821.6
37.5°	791.5	791.5	790.2	789.0
40°	755.7	757.6	757.6	757.6
42.5°	723.1	725.0	725.0	725.0
45°	689.3	692.4	693.7	694.9
47.5°	656.0	661.0	662.3	663.6
50°	623.4	627.2	627.8	628.4
52.5°	590.2	594.6	597.7	600.8
55°	555.1	559.4	561.3	563.2
57.5°	517.4	521.8	522.4	523.1
60°	476.0	480.4	481.7	482.9
62.5°	436.5	439.0	440.3	441.5
65°	391.4	395.1	397.6	400.1
67.5°	348.1	351.2	351.2	351.2
70°	299.8	301.0	302.9	304.8
72.5°	255.3	255.9	255.9	255.9
75°	208.2	209.5	210.1	210.7
77.5°	163.7	164.3	164.3	164.3
80°	119.8	119.2	119.2	119.2
82.5°	82.2	80.3	80.3	80.3
85°	47.0	46.4	47.0	47.7
87.5°	21.3	21.3	21.3	21.3
90°	20.6	21.4	22.1	21.4
92.5°	42.7	39.8	40.5	39.1
95°	100.2	93.6	88.4	85.5
97.5°	229.2	201.2	183.5	175.4
100°	543.8	490.0	461.3	462.0
102.5°	815.7	776.0	753.1	731.7
105°	992.6	964.6	941.0	937.3
107.5°	1102.4	1089.1	1079.6	1071.5
110°	1145.1	1151.0	1149.6	1148.1



TEST NUMBER: P831155

CATALOG NUMBER: S123DIP-S1000D805U830-4F0-1E-UDD-G4

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°
112.5°	1134.1	1155.5	1162.8	1163.6
115°	1089.1	1121.6	1136.3	1140.0
117.5°	1025.0	1061.1	1083.2	1088.4
120°	957.2	998.5	1016.2	1020.6
122.5°	895.3	931.4	951.3	957.2
125°	843.0	875.4	893.9	899.0
127.5°	799.5	827.5	844.5	848.9
130°	759.7	786.3	801.7	807.6
132.5°	723.6	750.2	763.4	767.1
135°	688.3	710.4	723.6	728.8
137.5°	649.9	672.8	683.8	688.3
140°	613.8	634.5	646.3	645.5
142.5°	578.5	596.2	606.5	605.7
145°	546.8	562.3	568.1	569.6
147.5°	521.0	532.0	537.9	538.7
150°	499.6	507.7	512.1	512.1
152.5°	480.5	487.8	490.0	490.0
155°	464.2	470.1	471.6	472.4
157.5°	449.5	453.9	455.4	455.4
160°	435.5	439.9	439.9	439.2
162.5°	421.5	425.2	425.2	424.5
165°	409.7	412.7	411.9	411.9
167.5°	397.9	400.1	399.4	399.4
170°	387.6	389.1	388.3	388.3
172.5°	378.8	380.2	378.8	378.0
175°	371.4	372.1	371.4	370.7
177.5°	366.2	367.0	365.5	365.5
180°	364.0	364.0	364.0	364.0



TEST NUMBER: P831155

CATALOG NUMBER: S123DIP-S1000D805U830-4F0-1E-UDD-G4

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	16.28	17.20	17.14	18.08	19.18	18.51	19.44	19.38	20.32	21.42
	3H	17.93	18.76	18.80	19.65	20.78	19.94	20.77	20.82	21.66	22.79
	4H	18.51	19.29	19.40	20.19	21.33	20.40	21.18	21.29	22.07	23.21
	6H	18.88	19.61	19.79	20.51	21.66	20.68	21.40	21.58	22.30	23.45
	8H	18.98	19.67	19.89	20.59	21.74	20.74	21.43	21.65	22.34	23.50
	12H	19.03	19.68	19.94	20.59	21.77	20.76	21.42	21.68	22.33	23.50
4H	2H	16.86	17.64	17.76	18.54	19.68	18.69	19.47	19.58	20.36	21.50
	3H	18.70	19.35	19.60	20.27	21.43	20.31	20.96	21.22	21.89	23.04
	4H	19.40	19.99	20.31	20.91	22.09	20.90	21.49	21.81	22.41	23.59
	6H	19.88	20.39	20.81	21.33	22.51	21.31	21.82	22.24	22.76	23.94
	8H	20.01	20.49	20.95	21.43	22.62	21.42	21.90	22.35	22.83	24.03
	12H	20.08	20.51	21.03	21.47	22.67	21.47	21.90	22.42	22.85	24.05
8H	4H	19.67	20.14	20.60	21.08	22.28	21.01	21.49	21.94	22.42	23.62
	6H	20.26	20.65	21.22	21.63	22.83	21.51	21.91	22.47	22.89	24.08
	8H	20.47	20.81	21.43	21.78	23.00	21.69	22.04	22.66	23.01	24.22
	12H	20.59	20.90	21.56	21.86	23.12	21.80	22.10	22.77	23.07	24.33
12H	4H	19.67	20.10	20.62	21.06	22.26	20.99	21.42	21.94	22.37	23.57
	6H	20.31	20.66	21.28	21.63	22.84	21.53	21.88	22.49	22.85	24.06
	8H	20.55	20.85	21.52	21.82	23.08	21.73	22.04	22.70	23.00	24.26