

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: P1031312

Luminaire Tested: S123DIW-B1000D1320UB40-4F0-XX-W2A-D1

Issue Date: 5/6/2025

Test Information

Test Method: LM-79-2019
Report Number: P1031312
REPORT IS A COMBINATION OF REPORTS P990637 AND P1007351
Test Lab: INNOVATION CENTER
Issue Date: 5/6/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S123DIW-B1000D1320UB40-4F0-XX-W2A-D1
Description: Define 3 Direct/Indirect Wall Mount with 4000K BioUP LEDs {m-DER=0.865} {m-EER=0.951}
Light Source: -
Ballast/Driver: -

Summary

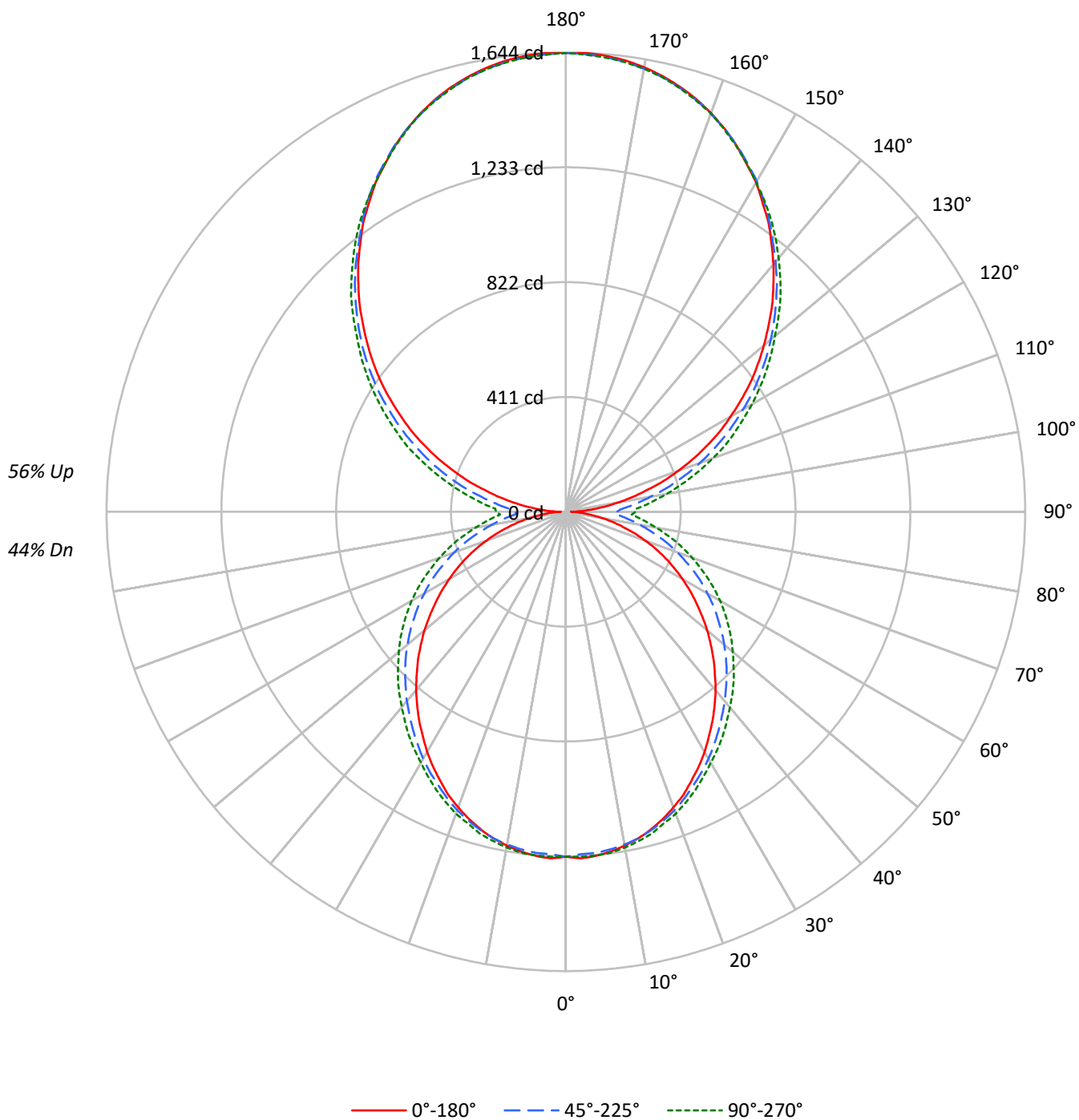
Lumens per Lamp: N/A
Luminaire Lumens: 8704.0 lumens
Efficiency: N/A
Efficacy: 97.9 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.25 / 1.37
Luminous Opening: Rectangular w/ Sides (W: 0.25' x L: 4' x H: 0.1')
CIE Type: General Diffuse

Input Watts (W): 88.9
Input Voltage (V):
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
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10
RCR																	
0	106	106	106	106	97	97	97	97	80	80	80	64	64	64	50	50	50
1	95	91	87	83	87	83	79	76	69	66	64	55	53	52	43	42	41
2	87	79	72	67	79	72	66	62	60	55	52	48	45	43	37	35	34
3	79	69	61	55	72	63	56	51	52	47	43	42	39	36	33	30	28
4	72	61	53	46	65	56	49	43	46	41	37	37	33	30	29	26	24
5	66	54	46	40	60	50	42	37	41	36	31	33	29	26	26	23	21
6	61	48	40	34	55	44	37	32	37	31	27	30	26	23	24	21	18
7	56	43	35	30	51	40	33	28	33	28	24	27	23	20	22	18	16
8	52	39	32	26	47	36	29	24	30	25	21	25	21	18	20	17	14
9	48	36	28	23	44	33	26	22	28	22	19	23	19	16	18	15	13
10	45	33	26	21	41	30	24	19	26	20	17	21	17	14	17	14	12

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	13291	13291	13291
5°	13328	12901	12891
10°	13203	12552	12456
15°	13029	12166	11995
20°	12781	11736	11500
25°	12476	11251	10987
30°	12163	10814	10472
35°	11813	10353	10053
40°	11478	9932	9608
45°	11107	9525	9243
50°	10741	9122	8847
55°	10333	8708	8482
60°	9937	8284	8108
65°	9527	7834	7672
70°	8914	7328	7221
75°	8137	6751	6755
80°	7231	6166	6224
85°	6330	5695	5843

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 11107 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	117.1	1.3
10°-20°	333.9	3.8
20°-30°	499.4	5.7
30°-40°	596.2	6.8
40°-50°	623.8	7.2
50°-60°	585.4	6.7
60°-70°	489.0	5.6
70°-80°	349.6	4.0
80°-90°	211.5	2.4
90°-100°	236.5	2.7
100°-110°	416.1	4.8
110°-120°	608.9	7.0
120°-130°	753.2	8.7
130°-140°	822.0	9.4
140°-150°	795.4	9.1
150°-160°	666.7	7.7
160°-170°	443.9	5.1
170°-180°	155.4	1.8
0°-30°	950.4	10.9
0°-40°	1546.6	17.8
0°-60°	2755.9	31.7
0°-90°	3806.0	43.7
90°-120°	1261.4	14.5
90°-150°	3632.0	41.7
90°-180°	4898.0	56.3
0°-180°	8704.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1235	1235	1235	1235	1235	
5°	1236	1234	1225	1236	1235	117
15°	1177	1181	1180	1193	1192	332
25°	1063	1076	1080	1098	1098	490
35°	915	936	954	974	979	572
45°	748	780	814	839	850	577
55°	570	615	663	700	710	511
65°	394	447	506	546	560	390
75°	214	277	344	389	405	228
85°	66	133	204	250	264	68
90°	19	98	183	234	250	18
95°	91	152	229	276	289	95
105°	301	336	405	443	458	322
115°	555	575	621	654	664	550
125°	806	810	847	870	874	720
135°	1044	1050	1064	1083	1087	804
145°	1264	1266	1270	1279	1279	789
155°	1446	1446	1448	1453	1444	666
165°	1575	1571	1571	1579	1570	444
175°	1638	1633	1633	1641	1632	156
180°	1642	1642	1642	1642	1642	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1234.8	1234.8	1234.8	1234.8	1234.8
2.5°	1241.6	1237.5	1226.8	1237.5	1236.2
5°	1236.2	1233.5	1225.4	1236.2	1234.8
7.5°	1226.8	1226.8	1218.7	1232.1	1230.8
10°	1213.3	1216.0	1209.3	1222.7	1220.0
12.5°	1197.2	1201.2	1197.2	1209.3	1206.6
15°	1177.0	1181.0	1179.7	1193.1	1191.8
17.5°	1152.8	1160.8	1159.5	1171.6	1168.9
20°	1125.9	1133.9	1136.6	1148.7	1150.1
22.5°	1097.6	1105.7	1109.7	1125.9	1124.5
25°	1062.7	1076.1	1080.1	1097.6	1097.6
27.5°	1029.0	1043.8	1051.9	1066.7	1068.0
30°	992.7	1010.2	1021.0	1037.1	1037.1
32.5°	952.4	972.5	987.3	1004.8	1008.8
35°	914.7	936.2	953.7	973.9	979.3
37.5°	874.3	898.5	918.7	941.6	945.6
40°	834.0	858.2	885.1	908.0	913.3
42.5°	789.6	820.5	848.8	874.3	882.4
45°	747.9	780.2	813.8	839.4	850.1
47.5°	703.5	739.8	777.5	805.7	813.8
50°	660.5	698.1	739.8	770.8	780.2
52.5°	614.7	655.1	702.2	734.4	746.5
55°	570.3	614.7	663.2	699.5	710.2
57.5°	527.3	573.0	625.5	661.8	673.9
60°	481.6	530.0	585.1	622.8	637.6
62.5°	438.5	488.3	547.5	585.1	598.6
65°	394.1	446.6	505.8	546.1	559.6
67.5°	349.7	404.9	464.1	508.5	519.2
70°	302.7	360.5	425.1	468.1	481.6
72.5°	259.6	317.5	384.7	429.1	442.5
75°	213.9	277.1	344.4	388.7	404.9
77.5°	174.9	238.1	305.3	352.4	364.5
80°	133.2	199.1	269.0	314.8	328.2
82.5°	96.8	164.1	235.4	281.1	294.6
85°	65.9	133.2	204.5	250.2	263.6
87.5°	40.4	107.6	176.2	221.9	235.4
90°	18.8	97.6	183.0	233.8	249.9
92.5°	54.8	120.4	195.4	243.7	253.2
95°	90.9	152.4	228.7	275.5	288.9
97.5°	138.6	193.5	264.4	311.3	323.4
100°	187.6	238.4	306.6	349.5	365.6
102.5°	244.3	285.8	355.4	396.9	409.1
105°	301.1	335.9	405.4	443.0	457.7
107.5°	366.8	396.3	456.6	496.8	507.6
110°	427.4	454.2	510.5	550.7	558.8

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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	491.9	512.0	563.1	603.1	615.3
115°	555.0	575.1	620.9	654.5	663.9
117.5°	620.8	632.9	676.0	708.3	715.2
120°	680.1	694.6	732.5	762.1	768.9
122.5°	743.3	751.2	790.3	816.1	821.6
125°	806.4	810.3	846.7	869.9	874.1
127.5°	865.8	872.2	903.3	922.4	926.7
130°	925.1	934.2	957.2	977.6	976.6
132.5°	983.2	993.5	1011.1	1028.9	1031.8
135°	1043.8	1050.2	1063.7	1082.8	1086.9
137.5°	1099.3	1104.3	1117.7	1132.8	1135.6
140°	1155.9	1162.4	1167.8	1186.7	1184.4
142.5°	1208.8	1214.0	1216.6	1232.8	1233.0
145°	1264.3	1265.6	1269.5	1279.0	1279.1
147.5°	1310.7	1315.9	1319.8	1323.8	1321.4
150°	1361.1	1363.6	1366.2	1366.2	1361.2
152.5°	1402.3	1406.2	1407.5	1410.1	1403.6
155°	1446.2	1446.2	1447.5	1452.7	1443.6
157.5°	1483.6	1482.3	1483.6	1488.8	1481.0
160°	1518.5	1515.9	1515.9	1522.3	1517.2
162.5°	1549.4	1545.5	1546.8	1553.3	1544.3
165°	1575.2	1571.3	1571.3	1579.1	1570.1
167.5°	1597.2	1592.0	1593.3	1601.0	1593.3
170°	1615.2	1610.1	1610.1	1619.1	1610.1
172.5°	1629.4	1624.2	1624.2	1632.0	1623.0
175°	1638.4	1633.3	1633.3	1641.0	1632.0
177.5°	1643.6	1638.4	1638.4	1646.2	1637.1
180°	1642.3	1642.3	1642.3	1642.3	1642.3

(END OF REPORT)