

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: P1031571

Luminaire Tested: S123DIW-B340D1030UB40-4F0-XX-W2A-D1

Issue Date: 5/6/2025

Test Information

Test Method: LM-79-2019
Report Number: P1031571
REPORT IS A COMBINATION OF REPORTS P991231 AND P1007351
Test Lab: INNOVATION CENTER
Issue Date: 5/6/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S123DIW-B340D1030UB40-4F0-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

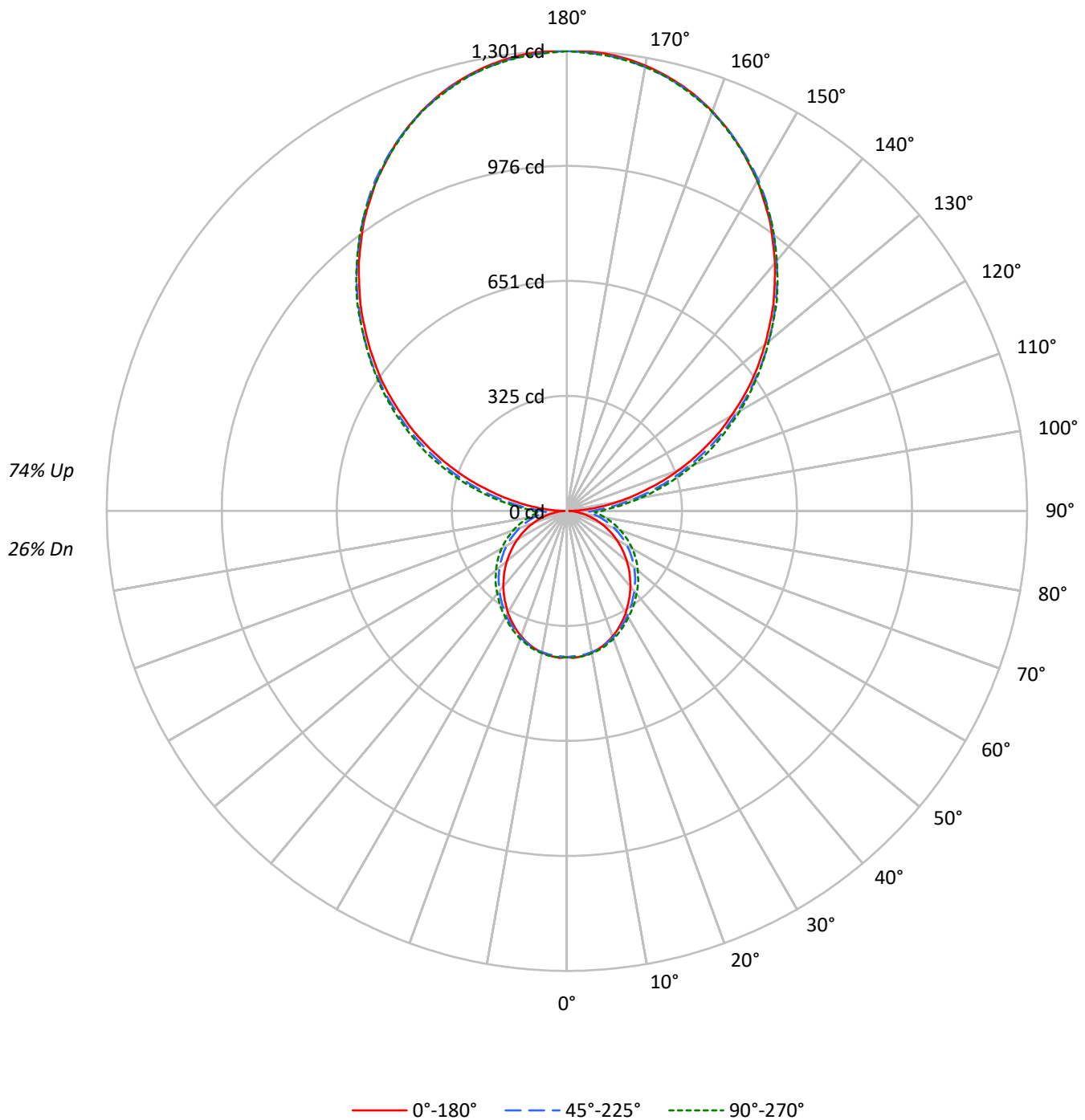
Lumens per Lamp: N/A
Luminaire Lumens: 4997.0 lumens
Efficiency: N/A
Efficacy: 112.3 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.25 / 1.37
Luminous Opening: Rectangular w/ Sides (W: 0.25' x L: 4' x H: 0.1')
CIE Type: Semi-Indirect

Input Watts (W): 44.5
Input Voltage (V):
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

TEST NUMBER: P1031571

CATALOG NUMBER: S123DIW-B340D1030UB40-4F0-XX-W2A-D1

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	101	101	101	101	90	90	90	90	70	70	70	51	51	51	34	34	34
1	92	87	83	80	82	78	75	72	60	58	56	44	42	41	29	28	27
2	83	76	70	65	74	68	63	58	52	49	46	38	36	34	25	24	23
3	76	66	59	54	67	59	53	48	46	42	38	34	31	28	22	20	19
4	69	59	51	45	61	52	46	41	41	36	32	30	27	24	20	18	16
5	63	52	44	38	56	46	40	35	36	31	28	27	23	21	18	16	14
6	58	46	39	33	52	42	35	30	32	27	24	24	20	18	16	14	12
7	54	42	34	29	48	37	31	26	29	24	21	22	18	16	14	12	11
8	50	38	30	25	44	34	27	23	27	22	18	20	16	14	13	11	10
9	46	34	27	22	41	31	24	20	24	19	16	18	15	12	12	10	9
10	43	31	24	20	38	28	22	18	22	18	14	17	13	11	11	9	8

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	4455	4455	4455
5°	4467	4324	4321
10°	4426	4207	4175
15°	4367	4078	4021
20°	4284	3934	3855
25°	4182	3771	3683
30°	4076	3624	3510
35°	3960	3471	3369
40°	3847	3329	3220
45°	3723	3193	3098
50°	3600	3058	2965
55°	3464	2919	2844
60°	3330	2776	2718
65°	3193	2625	2572
70°	2986	2456	2420
75°	2727	2262	2264
80°	2421	2068	2086
85°	2123	1908	1959

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 3723 cd/sqm

TEST NUMBER: P1031571

CATALOG NUMBER: S123DIW-B340D1030UB40-4F0-XX-W2A-D1

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	39.3	0.8
10°-20°	111.9	2.2
20°-30°	167.4	3.3
30°-40°	199.8	4.0
40°-50°	209.1	4.2
50°-60°	196.2	3.9
60°-70°	163.9	3.3
70°-80°	117.2	2.3
80°-90°	72.5	1.5
90°-100°	127.5	2.6
100°-110°	285.6	5.7
110°-120°	452.9	9.1
120°-130°	579.7	11.6
130°-140°	643.4	12.9
140°-150°	628.2	12.6
150°-160°	527.9	10.6
160°-170°	351.5	7.0
170°-180°	123.1	2.5
0°-30°	318.6	6.4
0°-40°	518.4	10.4
0°-60°	923.7	18.5
0°-90°	1277.3	25.6
90°-120°	866.0	17.3
90°-150°	2717.3	54.4
90°-180°	3720.0	74.4
0°-180°	4997.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	414	414	414	414	414	
5°	414	413	411	414	414	39
15°	394	396	395	400	400	111
25°	356	361	362	368	368	164
35°	307	314	320	326	328	192
45°	251	262	273	281	285	193
55°	191	206	222	234	238	171
65°	132	150	170	183	188	131
75°	72	93	115	130	136	77
85°	22	45	68	84	88	23
90°	7	39	75	95	101	9
95°	65	90	120	138	143	70
105°	233	246	275	288	294	250
115°	436	445	459	471	474	432
125°	637	640	651	656	655	568
135°	825	831	835	839	839	636
145°	1001	1002	1005	1008	1006	625
155°	1145	1145	1146	1150	1143	527
165°	1247	1244	1244	1250	1243	352
175°	1297	1293	1293	1299	1292	123
180°	1300	1300	1300	1300	1300	

TEST NUMBER: P1031571

CATALOG NUMBER: S123DIW-B340D1030UB40-4F0-XX-W2A-D1

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	413.9	413.9	413.9	413.9	413.9
2.5°	416.1	414.8	411.2	414.8	414.3
5°	414.3	413.4	410.7	414.3	413.9
7.5°	411.2	411.2	408.5	413.0	412.5
10°	406.7	407.6	405.3	409.8	408.9
12.5°	401.3	402.6	401.3	405.3	404.4
15°	394.5	395.9	395.4	399.9	399.5
17.5°	386.4	389.1	388.6	392.7	391.8
20°	377.4	380.1	381.0	385.0	385.5
22.5°	367.9	370.6	372.0	377.4	376.9
25°	356.2	360.7	362.0	367.9	367.9
27.5°	344.9	349.9	352.6	357.5	358.0
30°	332.7	338.6	342.2	347.6	347.6
32.5°	319.2	326.0	330.9	336.8	338.1
35°	306.6	313.8	319.7	326.4	328.2
37.5°	293.1	301.2	307.9	315.6	317.0
40°	279.5	287.7	296.7	304.3	306.1
42.5°	264.7	275.0	284.5	293.1	295.8
45°	250.7	261.5	272.8	281.3	284.9
47.5°	235.8	248.0	260.6	270.1	272.8
50°	221.4	234.0	248.0	258.3	261.5
52.5°	206.0	219.6	235.4	246.2	250.2
55°	191.2	206.0	222.3	234.4	238.1
57.5°	176.7	192.1	209.7	221.8	225.9
60°	161.4	177.6	196.1	208.7	213.7
62.5°	147.0	163.7	183.5	196.1	200.6
65°	132.1	149.7	169.5	183.1	187.6
67.5°	117.2	135.7	155.5	170.4	174.0
70°	101.4	120.8	142.5	156.9	161.4
72.5°	87.0	106.4	128.9	143.8	148.3
75°	71.7	92.9	115.4	130.3	135.7
77.5°	58.6	79.8	102.3	118.1	122.2
80°	44.6	66.7	90.2	105.5	110.0
82.5°	32.5	55.0	78.9	94.2	98.7
85°	22.1	44.6	68.5	83.9	88.4
87.5°	13.5	36.1	59.1	74.4	78.9
90°	6.9	39.2	75.4	94.9	101.4
92.5°	36.0	61.6	90.2	108.2	110.2
95°	65.3	89.9	120.2	138.3	142.8
97.5°	103.6	124.9	152.2	170.9	174.4
100°	143.0	163.6	189.4	205.5	212.1
102.5°	188.5	204.2	231.6	247.3	250.9
105°	233.4	246.3	274.9	287.5	293.6
107.5°	286.2	296.6	319.2	334.4	337.4
110°	334.7	344.8	365.0	380.8	382.3

TEST NUMBER: P1031571

CATALOG NUMBER: S123DIW-B340D1030UB40-4F0-XX-W2A-D1

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	385.8	393.1	410.3	426.6	430.7
115°	436.5	444.9	459.1	470.9	473.5
117.5°	488.6	493.2	506.4	517.2	517.8
120°	536.1	544.5	554.2	563.6	564.7
122.5°	586.1	591.1	603.1	609.9	610.0
125°	636.8	639.9	650.8	656.2	655.4
127.5°	683.8	689.4	698.7	701.5	700.6
130°	730.8	738.5	744.4	748.9	744.5
132.5°	777.3	785.4	790.2	793.2	791.2
135°	825.3	831.0	834.9	838.9	839.2
137.5°	869.2	873.9	880.1	882.2	881.4
140°	914.8	919.9	922.2	928.0	923.0
142.5°	956.7	961.3	963.3	968.2	965.3
145°	1000.6	1002.1	1005.2	1007.8	1005.5
147.5°	1037.9	1042.0	1045.0	1046.4	1042.1
150°	1077.7	1079.8	1081.8	1081.8	1076.6
152.5°	1110.4	1113.5	1114.5	1116.6	1111.4
155°	1145.2	1145.2	1146.2	1150.3	1143.1
157.5°	1174.8	1173.8	1174.8	1178.9	1172.7
160°	1202.4	1200.3	1200.3	1205.4	1201.3
162.5°	1226.9	1223.8	1224.8	1229.9	1222.8
165°	1247.3	1244.2	1244.2	1250.4	1243.2
167.5°	1264.7	1260.6	1261.6	1267.7	1261.6
170°	1279.0	1274.9	1274.9	1282.0	1274.9
172.5°	1290.2	1286.1	1286.1	1292.3	1285.1
175°	1297.4	1293.3	1293.3	1299.4	1292.3
177.5°	1301.4	1297.4	1297.4	1303.5	1296.3
180°	1300.4	1300.4	1300.4	1300.4	1300.4

(END OF REPORT)