

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: P1033521

Luminaire Tested: S124DIW-B350D770UB40-4F0-XX-W2A-D1

Issue Date: 5/6/2025

Test Information

Test Method: LM-79-2019
Report Number: P1033521
REPORT IS A COMBINATION OF REPORTS P997595 AND P1007351
Test Lab: INNOVATION CENTER
Issue Date: 5/6/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S124DIW-B350D770UB40-4F0-XX-W2A-D1
Description: Define 4 Direct/Indirect Wall Mount with 4000K BioUP LEDs {m-DER=0.865} {m-EER=0.951}
Light Source: -
Ballast/Driver: -

Summary

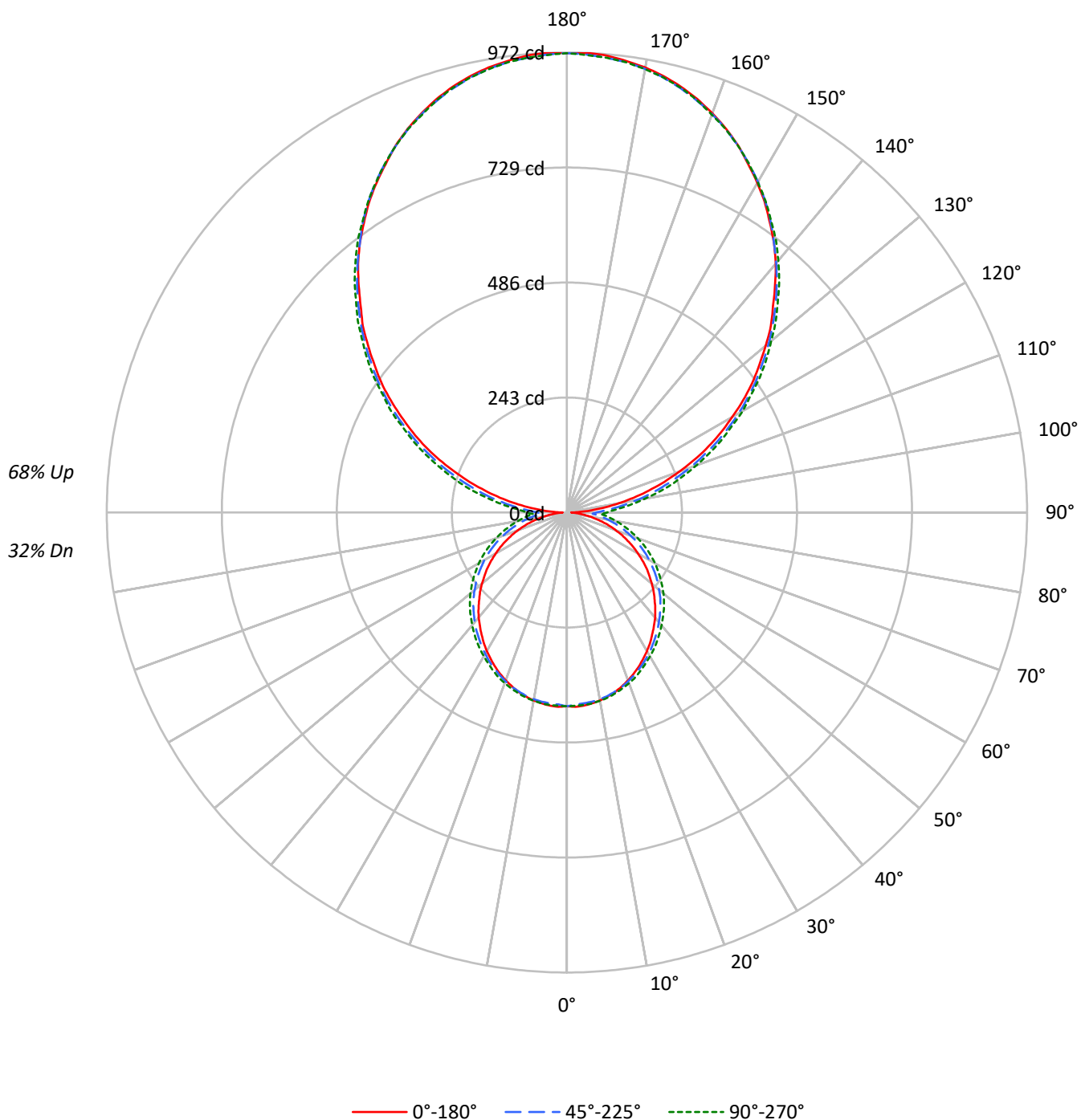
Lumens per Lamp: N/A
Luminaire Lumens: 4090.0 lumens
Efficiency: N/A
Efficacy: 113.0 lumens/watt
Spacing Criteria (0/90/45): 1.23 / 1.28 / 1.39
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 4' x H: 0.1')
CIE Type: Semi-Indirect

Input Watts (W): 36.2
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

TEST NUMBER: P1033521

CATALOG NUMBER: S124DIW-B350D770UB40-4F0-XX-W2A-D1

Luminous Intensity Polar Plot



TEST NUMBER: P1033521

CATALOG NUMBER: S124DIW-B350D770UB40-4F0-XX-W2A-D1

COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20					20					20					20
RC	80				70					50					30					0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10
RCR																				
0	103	103	103	103	92	92	92	92	73	73	73	55	55	55	39	39	39	39	39	39
1	93	89	85	81	83	80	76	73	63	61	58	48	46	45	34	33	32	32	32	32
2	84	77	71	65	76	69	64	59	55	51	48	41	39	37	29	28	26	26	26	26
3	77	67	60	54	69	61	54	49	48	44	40	36	33	31	26	24	22	22	22	22
4	70	59	51	45	63	53	47	41	42	38	34	32	29	26	23	21	19	19	19	19
5	64	53	45	39	57	47	41	35	38	33	29	29	25	22	20	18	16	16	16	16
6	59	47	39	33	53	42	35	30	34	29	25	26	22	19	18	16	14	14	14	14
7	54	42	34	29	49	38	31	26	31	25	22	23	20	17	17	14	12	12	12	12
8	50	38	31	25	45	35	28	23	28	23	19	21	18	15	15	13	11	11	11	11
9	47	35	27	22	42	31	25	21	25	20	17	20	16	13	14	12	10	10	10	10
10	44	32	25	20	39	29	23	18	23	18	15	18	15	12	13	11	9	9	9	9

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3337	3337	3337
5°	3346	3249	3255
10°	3324	3186	3176
15°	3293	3114	3087
20°	3246	3036	3001
25°	3195	2950	2907
30°	3138	2865	2813
35°	3075	2778	2728
40°	3024	2695	2640
45°	2949	2616	2563
50°	2884	2527	2481
55°	2818	2441	2386
60°	2715	2335	2298
65°	2600	2220	2192
70°	2463	2088	2069
75°	2271	1942	1952
80°	2052	1793	1828
85°	1768	1643	1729

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 90°

Luminance: 3131 cd/sqm

TEST NUMBER: P1033521

CATALOG NUMBER: S124DIW-B350D770UB40-4F0-XX-W2A-D1

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	38.8	0.9
10°-20°	111.1	2.7
20°-30°	168.0	4.1
30°-40°	203.2	5.0
40°-50°	214.8	5.3
50°-60°	202.2	4.9
60°-70°	167.7	4.1
70°-80°	117.7	2.9
80°-90°	68.4	1.7
90°-100°	102.8	2.5
100°-110°	218.7	5.3
110°-120°	341.5	8.4
120°-130°	435.6	10.7
130°-140°	481.6	11.8
140°-150°	469.6	11.5
150°-160°	394.2	9.6
160°-170°	262.3	6.4
170°-180°	91.8	2.2
0°-30°	317.8	7.8
0°-40°	521.0	12.7
0°-60°	938.0	22.9
0°-90°	1291.9	31.6
90°-120°	663.0	16.2
90°-150°	2049.8	50.1
90°-180°	2798.0	68.4
0°-180°	4090.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	409	409	409	409	409	
5°	410	408	405	409	408	39
15°	393	393	392	396	395	111
25°	359	362	363	368	369	165
35°	314	320	324	331	332	197
45°	262	271	280	287	290	203
55°	205	215	229	238	240	183
65°	142	157	172	184	187	141
75°	79	96	115	128	132	84
85°	24	44	64	78	82	25
90°	10	36	62	80	85	8
95°	51	73	97	112	116	54
105°	179	189	209	223	229	190
115°	330	334	347	357	359	326
125°	478	478	489	496	497	427
135°	616	620	623	629	630	476
145°	747	750	751	753	752	468
155°	856	856	855	858	855	394
165°	932	929	928	932	929	263
175°	969	965	964	970	964	92
180°	971	971	971	971	971	

TEST NUMBER: P1033521

CATALOG NUMBER: S124DIW-B350D770UB40-4F0-XX-W2A-D1

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	409.2	409.2	409.2	409.2	409.2
2.5°	411.0	409.6	406.0	409.2	408.7
5°	409.6	408.2	405.0	408.7	408.2
7.5°	406.9	406.0	403.2	407.3	406.9
10°	403.2	402.7	400.5	404.6	404.1
12.5°	398.2	398.2	396.8	400.5	400.5
15°	392.7	393.1	391.8	395.9	395.4
17.5°	385.3	386.7	386.3	390.4	389.9
20°	377.5	378.9	379.4	384.0	384.0
22.5°	368.8	370.7	371.6	376.2	377.1
25°	359.2	362.0	363.3	368.4	368.8
27.5°	348.7	352.8	354.6	359.2	359.7
30°	338.1	341.8	345.0	350.1	351.0
32.5°	326.7	331.3	334.9	340.9	341.8
35°	314.3	319.8	324.4	330.8	332.2
37.5°	301.9	308.4	313.9	320.3	321.6
40°	290.0	296.0	302.4	309.3	311.1
42.5°	276.3	283.2	290.9	298.7	300.1
45°	262.1	270.8	279.5	287.3	289.6
47.5°	248.8	257.5	267.6	275.4	278.1
50°	234.1	244.2	254.3	263.5	266.2
52.5°	219.5	229.6	241.5	250.6	253.4
55°	205.3	214.9	228.6	237.8	240.5
57.5°	189.2	201.1	214.4	225.4	227.7
60°	173.7	185.6	200.7	211.2	214.9
62.5°	158.5	171.8	186.9	197.5	201.1
65°	142.0	156.7	172.3	183.7	187.4
67.5°	126.5	142.0	158.5	170.0	173.7
70°	110.4	126.0	143.4	155.8	159.0
72.5°	94.8	110.9	129.7	141.6	145.2
75°	78.8	95.8	115.0	127.8	132.0
77.5°	63.7	81.6	101.7	114.5	119.1
80°	49.9	68.3	88.4	102.2	105.8
82.5°	36.2	55.4	75.6	89.8	93.9
85°	24.3	43.5	64.1	77.9	82.5
87.5°	15.1	33.9	54.1	67.4	71.5
90°	9.6	36.2	61.9	79.6	84.8
92.5°	26.4	52.2	75.6	90.7	95.1
95°	51.0	72.9	96.9	111.5	115.7
97.5°	77.6	96.9	121.7	136.6	140.7
100°	110.1	125.1	149.6	163.5	166.7
102.5°	144.6	155.5	178.9	193.0	197.5
105°	179.0	188.9	208.8	222.6	228.6
107.5°	215.8	224.3	241.1	255.6	258.0
110°	252.9	260.8	276.1	285.2	291.0

TEST NUMBER: P1033521

CATALOG NUMBER: S124DIW-B350D770UB40-4F0-XX-W2A-D1

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	291.4	296.9	310.5	320.6	324.3
115°	330.0	334.2	347.3	356.6	359.1
117.5°	366.8	369.6	382.5	389.9	391.3
120°	403.1	407.5	418.6	423.9	429.1
122.5°	441.4	442.2	453.8	460.7	460.1
125°	478.4	478.0	488.7	495.9	497.2
127.5°	512.2	514.1	521.7	528.5	530.9
130°	547.9	549.6	556.9	563.7	563.4
132.5°	584.6	585.6	590.4	596.7	598.7
135°	615.7	620.2	623.4	629.3	629.7
137.5°	650.9	652.8	656.1	660.7	663.8
140°	686.2	687.3	687.7	693.0	694.5
142.5°	718.1	719.6	718.3	723.3	725.2
145°	747.4	749.9	750.6	752.6	752.2
147.5°	777.4	780.6	779.9	779.6	780.7
150°	804.4	806.9	806.9	806.9	806.2
152.5°	829.4	830.9	831.7	833.9	831.7
155°	855.7	855.7	855.0	858.0	855.0
157.5°	878.2	876.7	876.7	879.0	876.7
160°	897.7	897.0	896.2	898.5	894.7
162.5°	915.8	913.5	912.8	917.3	913.5
165°	931.5	929.3	927.8	932.3	929.3
167.5°	944.3	941.3	941.3	945.8	941.3
170°	954.8	951.0	951.8	956.3	951.0
172.5°	962.3	959.3	959.3	964.5	959.3
175°	969.1	965.3	964.5	969.8	964.5
177.5°	972.1	968.3	968.3	973.6	967.5
180°	970.6	970.6	970.6	970.6	970.6

(END OF REPORT)