

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: P1033493

Luminaire Tested: S124DIW-B350D470UB40-4F0-XX-W2A-F1

Issue Date: 5/6/2025

Test Information

Test Method: LM-79-2019
Report Number: P1033493
REPORT IS A COMBINATION OF REPORTS P997532 AND P1007351
Test Lab: INNOVATION CENTER
Issue Date: 5/6/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S124DIW-B350D470UB40-4F0-XX-W2A-F1
Description: Define 4 Direct/Indirect Wall Mount with 4000K BioUP LEDs {m-DER=0.865} {m-EER=0.951}
Light Source: -
Ballast/Driver: -

Summary

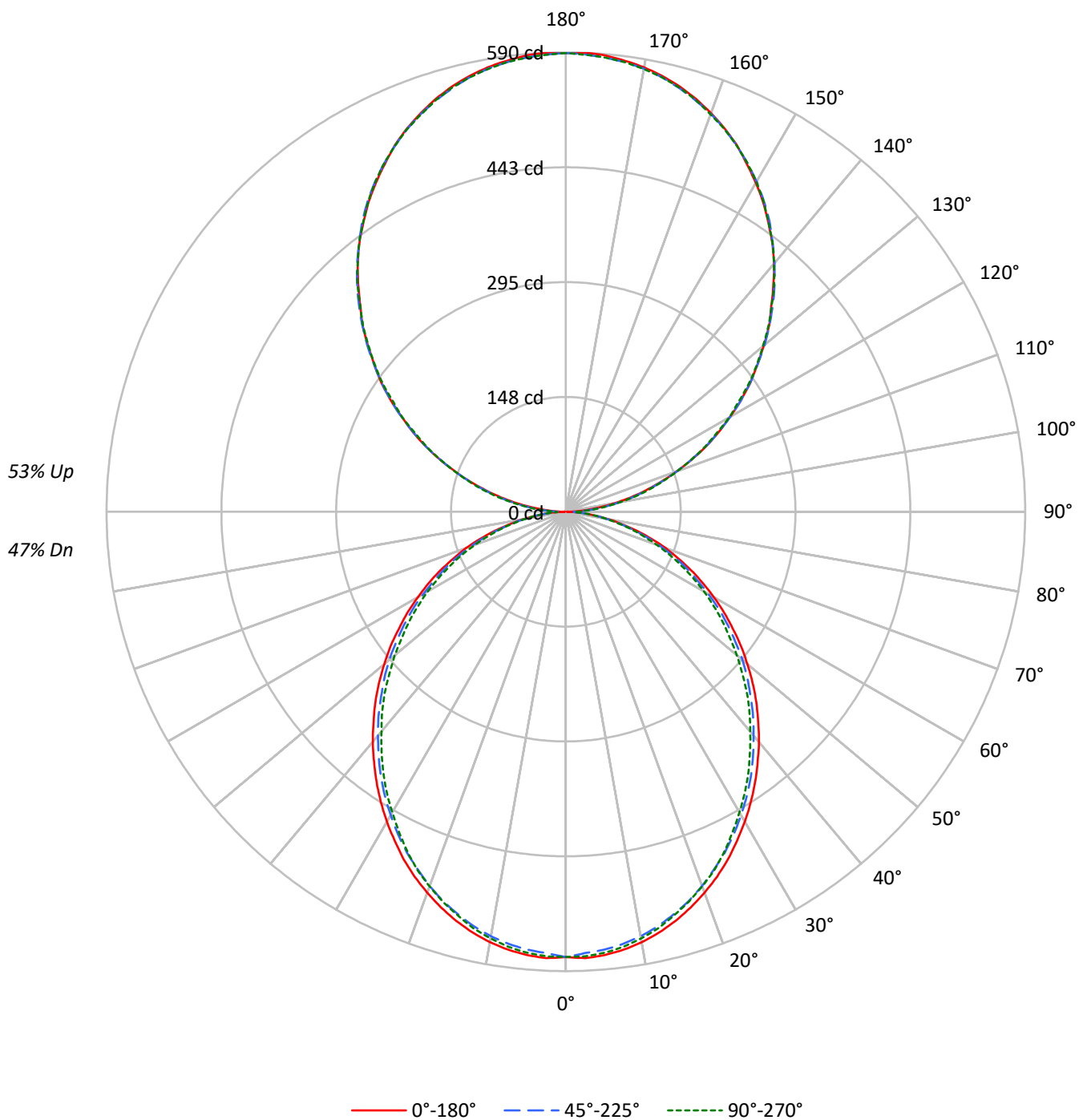
Lumens per Lamp: N/A
Luminaire Lumens: 3104.0 lumens
Efficiency: N/A
Efficacy: 118.5 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.17 / 1.29
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 4' x H: 0.1')
CIE Type: General Diffuse

Input Watts (W): 26.2
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

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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	107	107	107	107	98	98	98	98	82	82	82	67	67	67	54	54	54
1	97	93	89	85	89	85	82	79	72	69	67	59	57	56	47	46	45
2	88	81	75	70	81	75	69	65	63	59	56	52	49	47	42	40	38
3	81	71	64	58	74	66	59	54	55	51	47	46	42	39	37	34	32
4	74	63	55	49	68	58	51	46	49	44	40	41	37	34	33	30	28
5	68	56	48	42	62	52	45	39	44	38	34	37	32	29	30	27	24
6	62	50	42	36	57	47	39	34	40	34	30	33	29	26	27	24	21
7	58	45	37	32	53	42	35	30	36	30	26	30	26	23	25	21	19
8	53	41	33	28	49	38	31	27	33	27	23	28	23	20	23	19	17
9	50	38	30	25	46	35	28	24	30	25	21	25	21	18	21	18	15
10	46	34	27	22	43	32	26	21	28	22	19	23	19	16	19	16	14

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	4664	4664	4664
5°	4668	4530	4535
10°	4628	4404	4373
15°	4562	4255	4191
20°	4477	4092	4001
25°	4382	3922	3797
30°	4267	3737	3573
35°	4147	3548	3357
40°	4023	3344	3127
45°	3893	3141	2912
50°	3749	2943	2674
55°	3592	2711	2437
60°	3431	2458	2191
65°	3249	2197	1913
70°	3036	1881	1616
75°	2720	1517	1294
80°	2320	1097	910
85°	1797	610	490

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
Vertical Angle: 45°
Luminance: 3893 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	53.9	1.7
10°-20°	151.9	4.9
20°-30°	223.5	7.2
30°-40°	259.8	8.4
40°-50°	259.8	8.4
50°-60°	227.2	7.3
60°-70°	168.7	5.4
70°-80°	95.7	3.1
80°-90°	28.7	0.9
90°-100°	38.4	1.2
100°-110°	115.0	3.7
110°-120°	195.4	6.3
120°-130°	257.7	8.3
130°-140°	289.5	9.3
140°-150°	284.5	9.2
150°-160°	239.3	7.7
160°-170°	159.2	5.1
170°-180°	55.7	1.8
0°-30°	429.3	13.8
0°-40°	689.1	22.2
0°-60°	1176.2	37.9
0°-90°	1469.3	47.3
90°-120°	348.8	11.2
90°-150°	1180.5	38.0
90°-180°	1635.0	52.7
0°-180°	3104.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	572	572	572	572	572	
5°	572	570	565	570	569	54
15°	544	542	535	538	537	153
25°	493	490	483	484	482	227
35°	424	421	414	411	409	265
45°	346	343	336	330	329	267
55°	262	260	254	248	246	234
65°	177	175	170	166	164	176
75°	94	92	90	88	88	100
85°	25	25	24	24	23	27
90°	1	6	10	13	14	4
95°	27	31	35	36	36	30
105°	106	107	108	110	111	113
115°	199	199	198	197	197	196
125°	289	289	289	288	287	258
135°	373	376	376	375	374	289
145°	453	455	456	455	454	284
155°	520	520	519	521	519	239
165°	566	564	563	566	564	159
175°	588	586	586	589	586	56
180°	589	589	589	589	589	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	571.9	571.9	571.9	571.9	571.9
2.5°	573.8	572.4	567.4	571.9	571.5
5°	571.5	569.7	564.6	569.7	568.7
7.5°	567.4	565.5	560.0	564.2	563.7
10°	561.4	559.6	553.6	557.3	556.4
12.5°	553.6	551.8	545.4	549.5	548.1
15°	544.0	542.2	535.3	538.0	536.7
17.5°	533.0	530.7	524.3	526.1	525.2
20°	520.6	518.3	511.4	512.8	511.9
22.5°	507.3	504.1	497.2	500.0	498.2
25°	492.7	489.5	483.0	483.5	481.7
27.5°	476.2	473.0	467.0	466.1	463.8
30°	459.7	456.0	450.0	448.2	445.9
32.5°	442.2	439.0	432.6	430.3	428.0
35°	423.9	420.7	414.3	411.1	408.8
37.5°	404.7	401.9	395.0	391.8	388.6
40°	385.9	382.2	375.3	370.8	368.5
42.5°	365.7	363.9	356.1	350.6	349.2
45°	346.0	342.8	335.5	330.4	329.0
47.5°	325.4	323.1	316.2	310.7	307.1
50°	304.3	302.5	296.1	289.6	286.9
52.5°	283.7	281.4	274.5	269.0	265.3
55°	261.7	260.3	253.9	248.4	245.6
57.5°	241.1	239.7	233.3	227.8	225.0
60°	219.5	217.2	211.3	207.1	204.9
62.5°	198.4	196.6	190.2	186.5	184.2
65°	177.4	175.1	170.5	165.9	163.6
67.5°	155.8	154.0	149.4	144.8	144.4
70°	136.1	132.9	129.2	125.6	124.2
72.5°	115.0	111.8	109.1	106.3	104.9
75°	94.4	92.1	89.8	88.0	87.5
77.5°	74.2	73.3	71.0	70.6	69.2
80°	56.4	55.0	54.1	53.2	52.7
82.5°	39.0	38.5	38.5	38.0	37.6
85°	24.7	24.7	23.8	23.8	23.4
87.5°	11.9	11.5	11.0	11.0	11.0
90°	1.4	6.4	10.0	12.8	13.7
92.5°	11.8	17.8	20.0	21.4	21.9
95°	27.3	31.4	34.6	36.0	36.0
97.5°	43.7	47.4	51.0	52.9	52.9
100°	63.8	65.6	69.7	70.6	70.6
102.5°	84.8	85.2	88.9	90.2	90.7
105°	106.2	106.6	108.4	109.8	111.2
107.5°	128.5	129.0	129.4	131.2	130.8
110°	151.3	152.2	151.7	150.8	152.2

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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	175.0	175.0	174.1	174.1	174.1
115°	198.7	198.7	197.8	197.3	196.8
117.5°	221.0	221.0	220.5	219.2	217.8
120°	243.3	245.1	243.8	241.5	242.4
122.5°	266.6	267.0	266.6	265.2	262.9
125°	289.3	289.3	288.9	288.0	287.1
127.5°	309.9	311.2	310.3	309.4	308.9
130°	331.7	333.1	333.1	332.2	330.4
132.5°	354.1	355.0	354.5	353.6	353.1
135°	373.2	375.9	375.9	375.0	373.6
137.5°	394.6	396.0	396.9	395.5	396.0
140°	416.0	416.9	416.9	416.5	416.0
142.5°	435.6	436.5	436.1	436.1	436.1
145°	453.4	455.2	455.7	455.2	453.8
147.5°	471.6	473.9	473.4	473.0	472.5
150°	488.0	489.8	489.8	489.8	489.4
152.5°	503.5	504.4	504.9	506.2	504.9
155°	519.5	519.5	519.0	520.8	519.0
157.5°	533.1	532.2	532.2	533.6	532.2
160°	545.0	544.5	544.1	545.4	543.2
162.5°	555.9	554.5	554.1	556.8	554.5
165°	565.5	564.1	563.2	565.9	564.1
167.5°	573.2	571.4	571.4	574.1	571.4
170°	579.6	577.3	577.8	580.5	577.3
172.5°	584.2	582.3	582.3	585.5	582.3
175°	588.3	586.0	585.5	588.7	585.5
177.5°	590.1	587.8	587.8	591.0	587.4
180°	589.2	589.2	589.2	589.2	589.2

(END OF REPORT)