

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: P1031800

Luminaire Tested: S123DIW-B560D460UB40-4F0-XX-W2A-D

Issue Date: 5/6/2025

Test Information

Test Method: LM-79-2019
Report Number: P1031800
REPORT IS A COMBINATION OF REPORTS P991758 AND P1007351
Test Lab: INNOVATION CENTER
Issue Date: 5/6/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S123DIW-B560D460UB40-4F0-XX-W2A-D
Description: Define 3 Direct/Indirect Wall Mount with 4000K BioUP LEDs {m-DER=0.865} {m-EER=0.951}
Light Source: -
Ballast/Driver: -

Summary

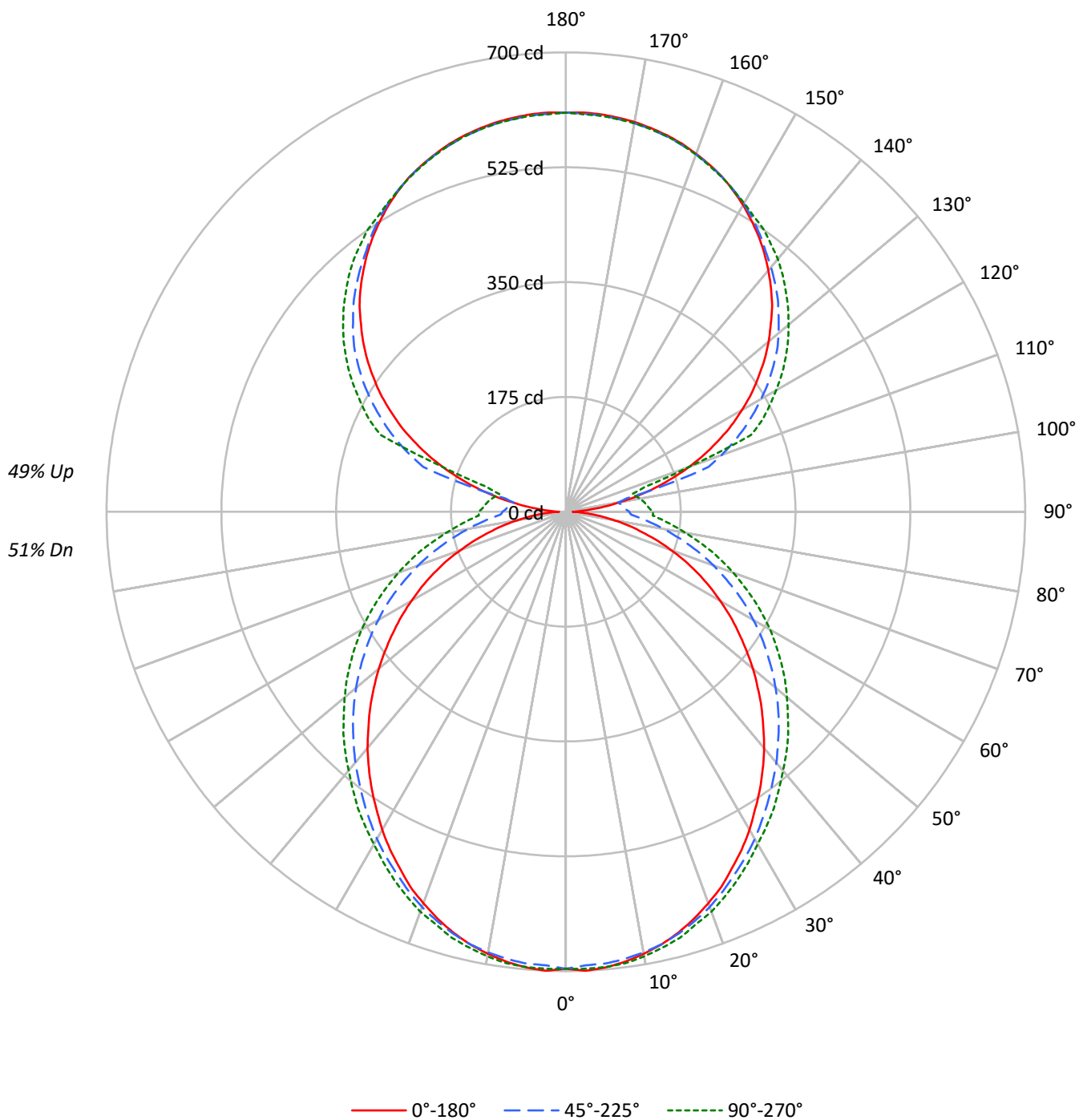
Lumens per Lamp: N/A
Luminaire Lumens: 4195.0 lumens
Efficiency: N/A
Efficacy: 112.8 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.25 / 1.37
Luminous Opening: Rectangular w/ Sides (W: 0.25' x L: 4' x H: 0.1')
CIE Type: General Diffuse

Input Watts (W): 37.2
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	99	99	99	99	84	84	84	70	70	70	57	57	57
1	97	92	88	84	89	85	81	78	72	69	67	60	58	56	49	47	46
2	88	80	73	68	81	74	68	63	62	58	54	52	49	46	42	40	38
3	80	70	62	56	73	65	58	52	55	50	45	46	42	38	37	34	32
4	73	62	53	47	67	57	50	44	48	43	38	40	36	33	33	30	27
5	67	55	46	40	61	51	43	38	43	37	33	36	32	28	30	26	24
6	62	49	41	35	56	46	38	33	39	33	28	33	28	25	27	23	21
7	57	44	36	30	52	41	34	28	35	29	25	30	25	22	24	21	18
8	53	40	32	27	48	37	30	25	32	26	22	27	23	19	22	19	16
9	49	37	29	24	45	34	27	22	29	24	20	25	20	17	21	17	15
10	46	33	26	21	42	31	25	20	27	22	18	23	19	16	19	16	13

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	7495	7495	7495
5°	7515	7275	7269
10°	7444	7078	7023
15°	7347	6860	6764
20°	7206	6618	6484
25°	7034	6344	6195
30°	6858	6097	5905
35°	6661	5837	5668
40°	6471	5601	5418
45°	6263	5371	5212
50°	6056	5144	4988
55°	5827	4910	4783
60°	5602	4671	4572
65°	5371	4417	4325
70°	5027	4132	4071
75°	4588	3807	3809
80°	4077	3477	3510
85°	3573	3211	3296

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 6263 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	66.0	1.6
10°-20°	188.3	4.5
20°-30°	281.6	6.7
30°-40°	336.2	8.0
40°-50°	351.8	8.4
50°-60°	330.1	7.9
60°-70°	275.7	6.6
70°-80°	197.1	4.7
80°-90°	118.5	2.8
90°-100°	95.2	2.3
100°-110°	157.9	3.8
110°-120°	290.2	6.9
120°-130°	343.2	8.2
130°-140°	353.8	8.4
140°-150°	324.1	7.7
150°-160°	259.9	6.2
160°-170°	167.7	4.0
170°-180°	57.8	1.4
0°-30°	535.9	12.8
0°-40°	872.1	20.8
0°-60°	1553.9	37.0
0°-90°	2145.3	51.1
90°-120°	543.2	12.9
90°-150°	1564.3	37.3
90°-180°	2050.0	48.9
0°-180°	4195.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	696	696	696	696	696	
5°	697	696	691	697	696	66
15°	664	666	665	673	672	187
25°	599	607	609	619	619	276
35°	516	528	538	549	552	323
45°	422	440	459	473	479	325
55°	322	347	374	394	400	288
65°	222	252	285	308	316	220
75°	121	156	194	219	228	129
85°	37	75	115	141	149	38
90°	10	52	96	124	133	9
95°	36	47	89	116	123	39
105°	141	164	156	97	105	149
115°	256	268	300	322	330	253
125°	358	362	386	402	409	320
135°	445	447	457	472	474	342
145°	512	515	516	522	526	320
155°	563	562	563	565	562	260
165°	594	593	592	596	593	168
175°	608	606	606	609	606	58
180°	608	608	608	608	608	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	696.3	696.3	696.3	696.3	696.3
2.5°	700.1	697.8	691.7	697.8	697.0
5°	697.0	695.5	691.0	697.0	696.3
7.5°	691.7	691.7	687.2	694.7	694.0
10°	684.1	685.6	681.9	689.4	687.9
12.5°	675.0	677.3	675.0	681.9	680.3
15°	663.7	665.9	665.2	672.8	672.0
17.5°	650.0	654.6	653.8	660.6	659.1
20°	634.8	639.4	640.9	647.7	648.5
22.5°	618.9	623.5	625.7	634.8	634.1
25°	599.2	606.8	609.0	618.9	618.9
27.5°	580.2	588.6	593.1	601.5	602.2
30°	559.7	569.6	575.7	584.8	584.8
32.5°	537.0	548.4	556.7	566.6	568.8
35°	515.8	527.9	537.7	549.1	552.2
37.5°	493.0	506.7	518.0	530.9	533.2
40°	470.2	483.9	499.1	512.0	515.0
42.5°	445.2	462.7	478.6	493.0	497.5
45°	421.7	439.9	458.9	473.3	479.3
47.5°	396.7	417.2	438.4	454.3	458.9
50°	372.4	393.6	417.2	434.6	439.9
52.5°	346.6	369.4	395.9	414.1	420.9
55°	321.6	346.6	373.9	394.4	400.5
57.5°	297.3	323.1	352.7	373.2	380.0
60°	271.5	298.8	329.9	351.2	359.5
62.5°	247.3	275.3	308.7	329.9	337.5
65°	222.2	251.8	285.2	307.9	315.5
67.5°	197.2	228.3	261.7	286.7	292.8
70°	170.7	203.3	239.7	263.9	271.5
72.5°	146.4	179.0	216.9	241.9	249.5
75°	120.6	156.2	194.2	219.2	228.3
77.5°	98.6	134.2	172.2	198.7	205.5
80°	75.1	112.3	151.7	177.5	185.1
82.5°	54.6	92.5	132.7	158.5	166.1
85°	37.2	75.1	115.3	141.1	148.7
87.5°	22.8	60.7	99.4	125.1	132.7
90°	10.4	52.0	96.5	124.1	132.7
92.5°	19.5	49.4	91.3	119.6	126.9
95°	35.9	46.9	89.1	115.8	123.4
97.5°	57.7	72.4	85.0	111.4	119.4
100°	83.1	116.5	80.9	106.5	114.6
102.5°	112.3	139.3	94.8	101.2	109.7
105°	140.7	163.9	155.8	97.1	104.8
107.5°	170.2	190.2	228.0	179.0	126.6
110°	199.8	217.0	252.2	257.1	198.5



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	228.7	242.4	276.2	299.3	305.2
115°	256.3	268.1	299.5	322.2	330.1
117.5°	284.3	293.6	321.6	343.5	349.9
120°	309.3	317.2	343.6	364.6	369.9
122.5°	335.5	340.3	365.6	384.4	390.3
125°	358.3	361.9	385.7	402.5	408.7
127.5°	381.8	384.6	405.9	422.3	426.8
130°	403.5	406.3	423.3	439.5	443.1
132.5°	423.5	427.1	439.8	455.2	459.3
135°	444.7	446.7	456.8	471.9	474.2
137.5°	462.8	465.7	471.9	486.2	489.1
140°	480.1	482.8	486.4	499.6	502.5
142.5°	496.8	498.8	500.1	511.4	513.8
145°	512.2	514.6	515.5	522.5	525.5
147.5°	526.3	528.6	529.5	532.7	533.4
150°	539.9	541.2	542.1	543.0	543.2
152.5°	552.1	552.5	553.0	554.8	552.5
155°	563.4	562.5	562.9	565.2	562.5
157.5°	572.4	572.4	571.9	574.6	571.0
160°	580.5	580.1	579.6	582.3	579.2
162.5°	588.2	586.8	586.4	589.6	586.8
165°	594.1	592.7	592.3	595.9	592.7
167.5°	599.0	597.2	597.2	600.9	597.2
170°	603.1	601.3	601.3	604.9	601.3
172.5°	605.8	603.6	604.0	607.6	603.6
175°	608.1	605.8	606.3	609.4	605.8
177.5°	609.0	606.7	607.2	610.8	606.3
180°	608.1	608.1	608.1	608.1	608.1

(END OF REPORT)