

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: P1031801

Luminaire Tested: S123DIW-B560D460UB40-4F0-XX-W2A-D1

Issue Date: 5/6/2025

Test Information

Test Method: LM-79-2019
Report Number: P1031801
REPORT IS A COMBINATION OF REPORTS P991759 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-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

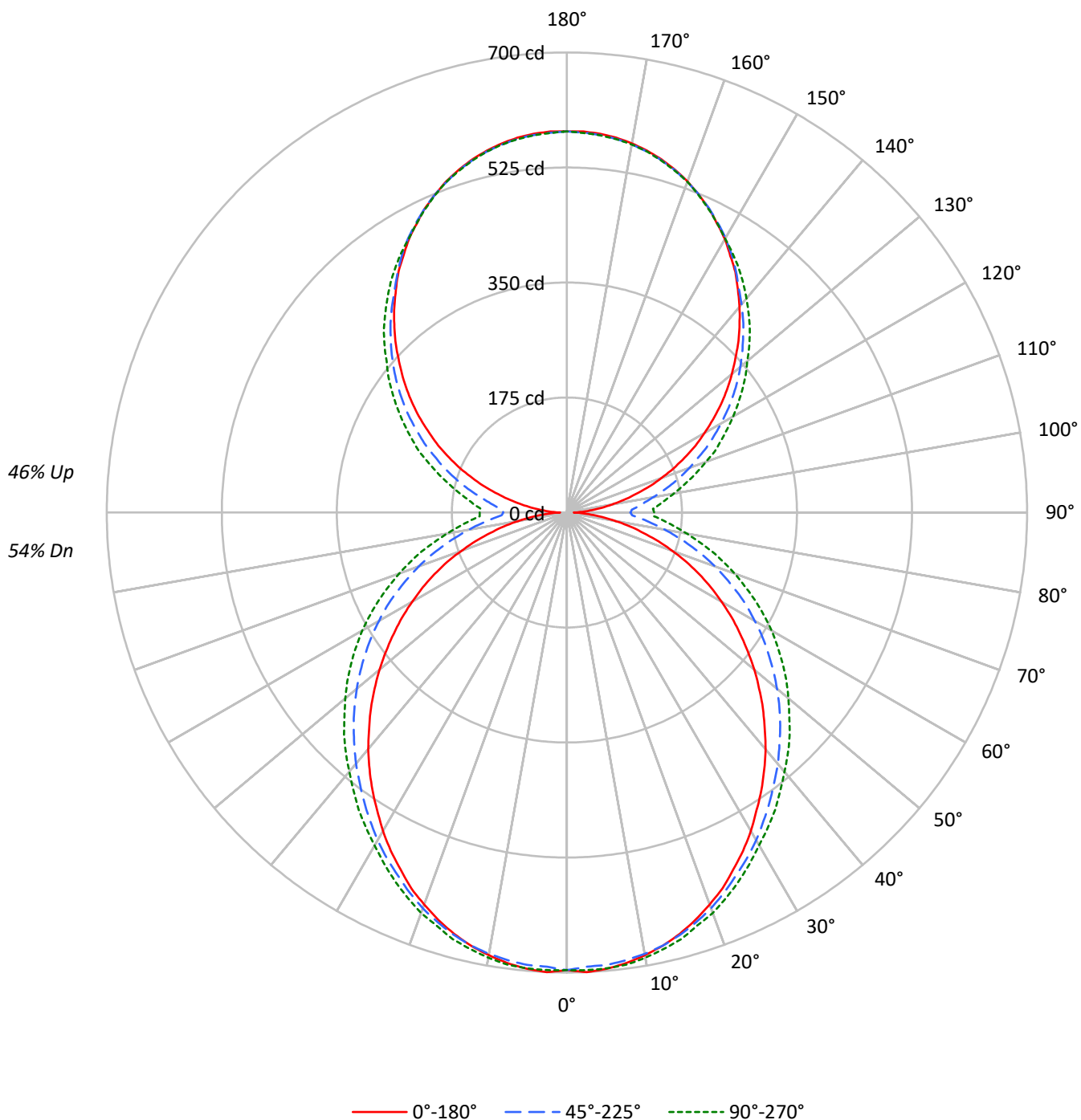
Lumens per Lamp: N/A
Luminaire Lumens: 3948.1 lumens
Efficiency: N/A
Efficacy: 106.1 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.25 / 1.37
Luminous Opening: Rectangular w/ Sides (W: 0.25' x L: 4' x H: 0.1')
CIE Type: General Diffuse

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	108	108	108	108	100	100	100	100	86	86	86	72	72	72	60	60	60
1	98	93	88	84	90	86	82	79	73	71	68	62	60	58	51	50	48
2	88	80	74	68	82	75	69	64	64	59	55	54	50	48	45	42	40
3	80	70	62	56	74	65	58	53	56	51	46	47	43	40	39	36	34
4	73	62	54	47	68	58	50	44	49	44	39	42	37	34	35	31	29
5	67	55	47	40	62	51	44	38	44	38	33	37	33	29	31	28	25
6	62	49	41	35	57	46	38	33	40	34	29	34	29	25	28	25	22
7	57	44	36	30	53	42	34	29	36	30	26	31	26	22	26	22	19
8	53	40	32	27	49	38	30	25	33	27	23	28	23	20	24	20	17
9	49	37	29	24	46	34	27	23	30	24	20	26	21	18	22	18	15
10	46	34	26	21	43	32	25	20	28	22	18	24	19	16	20	17	14

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	1.7
10°-20°	188.3	4.8
20°-30°	281.6	7.1
30°-40°	336.2	8.5
40°-50°	351.8	8.9
50°-60°	330.1	8.4
60°-70°	275.7	7.0
70°-80°	197.1	5.0
80°-90°	118.5	3.0
90°-100°	111.0	2.8
100°-110°	167.2	4.2
110°-120°	228.6	5.8
120°-130°	273.7	6.9
130°-140°	293.7	7.4
140°-150°	281.6	7.1
150°-160°	235.4	6.0
160°-170°	156.7	4.0
170°-180°	54.9	1.4
0°-30°	535.9	13.6
0°-40°	872.1	22.1
0°-60°	1553.9	39.4
0°-90°	2145.3	54.3
90°-120°	506.8	12.8
90°-150°	1355.7	34.3
90°-180°	1803.0	45.7
0°-180°	3948.1	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	97	124	133	9
95°	35	68	109	134	142	36
105°	109	128	164	186	193	116
115°	197	208	234	253	259	196
125°	286	287	308	322	326	255
135°	369	371	379	391	394	284
145°	447	447	448	454	455	279
155°	511	511	511	513	510	235
165°	556	555	555	558	554	157
175°	578	577	577	579	576	55
180°	580	580	580	580	580	

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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	96.6	124.3	132.8
92.5°	22.8	58.1	98.7	125.2	131.1
95°	35.2	68.0	108.8	134.1	141.7
97.5°	51.8	81.4	119.7	144.8	151.9
100°	68.8	95.8	133.0	156.3	164.8
102.5°	88.6	111.1	148.4	171.1	178.2
105°	108.6	127.7	164.4	185.6	193.3
107.5°	131.5	147.8	180.8	202.6	209.0
110°	152.6	167.2	198.4	220.0	225.1



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	175.4	186.5	215.3	236.6	243.4
115°	197.4	207.9	234.3	252.9	258.6
117.5°	220.6	227.2	252.0	270.3	274.9
120°	241.2	247.8	270.6	287.5	291.9
122.5°	263.6	267.0	289.6	304.8	308.8
125°	285.6	287.0	308.1	322.2	325.7
127.5°	306.6	308.5	326.6	339.0	342.6
130°	327.5	330.4	344.2	356.8	358.1
132.5°	347.7	351.3	361.8	373.2	376.3
135°	369.1	371.1	379.0	390.9	393.7
137.5°	388.7	390.3	396.9	406.8	409.2
140°	408.5	410.8	413.4	424.4	425.0
142.5°	427.2	428.7	429.6	439.0	440.5
145°	446.8	446.9	448.2	453.9	455.1
147.5°	462.8	464.6	466.0	468.3	468.6
150°	480.6	481.5	482.4	482.4	481.2
152.5°	495.2	496.5	497.0	497.9	495.6
155°	510.7	510.7	511.1	512.9	509.7
157.5°	523.9	523.4	523.9	525.7	523.0
160°	536.2	535.2	535.2	537.5	535.7
162.5°	547.1	545.7	546.2	548.5	545.3
165°	556.2	554.8	554.8	557.6	554.4
167.5°	563.9	562.1	562.6	565.3	562.6
170°	570.3	568.5	568.5	571.7	568.5
172.5°	575.3	573.5	573.5	576.2	573.1
175°	578.5	576.7	576.7	579.4	576.2
177.5°	580.3	578.5	578.5	581.3	578.1
180°	579.9	579.9	579.9	579.9	579.9

(END OF REPORT)