

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: P1031789

Luminaire Tested: S123DIW-B560D460UB30-4F0-XX-W2A-D1

Issue Date: 5/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1031789
REPORT IS A COMBINATION OF REPORTS P991741 AND P1007351
Test Lab: INNOVATION CENTER
Issue Date: 5/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S123DIW-B560D460UB30-4F0-XX-W2A-D1
Description: Define 3 Direct/Indirect Wall Mount with 3000K BioUP LEDs {m-DER=0.589} {m-EER=0.647}
Light Source: -
Ballast/Driver: -

Summary

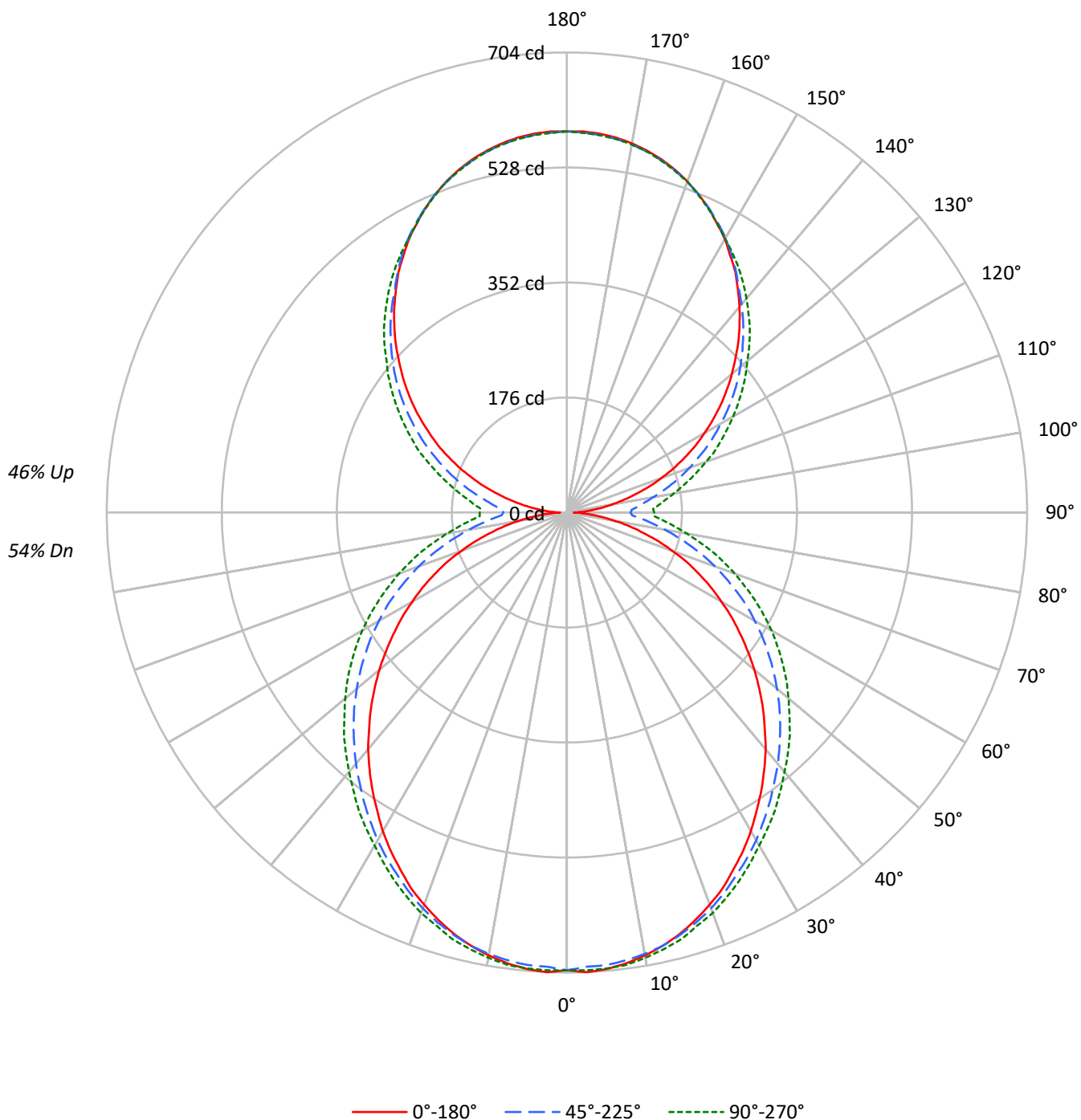
Lumens per Lamp: N/A
Luminaire Lumens: 3971.0 lumens
Efficiency: N/A
Efficacy: 106.7 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.25 / 1.37
Luminous Opening: Rectangular w/ Sides (W: 0.25' x L: 4' x H: 0.1')
CIE Type: General Diffuse

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°	7539	7539	7539
5°	7560	7318	7312
10°	7489	7120	7065
15°	7390	6901	6804
20°	7249	6657	6523
25°	7077	6382	6232
30°	6899	6133	5940
35°	6700	5873	5702
40°	6511	5634	5451
45°	6300	5403	5243
50°	6091	5174	5018
55°	5862	4940	4812
60°	5637	4699	4600
65°	5405	4444	4351
70°	5056	4156	4096
75°	4614	3828	3832
80°	4099	3498	3531
85°	3592	3230	3314

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 6300 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	66.4	1.7
10°-20°	189.4	4.8
20°-30°	283.3	7.1
30°-40°	338.2	8.5
40°-50°	353.8	8.9
50°-60°	332.1	8.4
60°-70°	277.4	7.0
70°-80°	198.3	5.0
80°-90°	119.2	3.0
90°-100°	111.7	2.8
100°-110°	168.1	4.2
110°-120°	229.8	5.8
120°-130°	275.2	6.9
130°-140°	295.3	7.4
140°-150°	283.1	7.1
150°-160°	236.7	6.0
160°-170°	157.6	4.0
170°-180°	55.2	1.4
0°-30°	539.1	13.6
0°-40°	877.3	22.1
0°-60°	1563.2	39.4
0°-90°	2158.1	54.3
90°-120°	509.6	12.8
90°-150°	1363.3	34.3
90°-180°	1813.0	45.7
0°-180°	3971.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	700	700	700	700	700	
5°	701	700	695	701	700	67
15°	668	670	669	677	676	188
25°	603	610	613	623	623	278
35°	519	531	541	552	556	324
45°	424	442	462	476	482	327
55°	324	349	376	397	403	290
65°	224	253	287	310	317	221
75°	121	157	195	220	230	130
85°	37	76	116	142	150	38
90°	10	52	97	125	134	9
95°	35	68	109	135	142	36
105°	109	128	165	187	194	117
115°	198	209	236	254	260	197
125°	287	289	310	324	328	256
135°	371	373	381	393	396	286
145°	449	449	451	456	458	280
155°	514	514	514	516	513	236
165°	559	558	558	561	558	158
175°	582	580	580	583	580	55
180°	583	583	583	583	583	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	700.4	700.4	700.4	700.4	700.4
2.5°	704.2	702.0	695.9	702.0	701.2
5°	701.2	699.7	695.1	701.2	700.4
7.5°	695.9	695.9	691.3	698.9	698.1
10°	688.2	689.7	685.9	693.6	692.0
12.5°	679.1	681.4	679.1	685.9	684.4
15°	667.6	669.9	669.1	676.8	676.0
17.5°	653.9	658.5	657.7	664.6	663.0
20°	638.6	643.2	644.7	651.6	652.4
22.5°	622.6	627.2	629.5	638.6	637.9
25°	602.8	610.4	612.7	622.6	622.6
27.5°	583.7	592.1	596.7	605.1	605.8
30°	563.1	573.0	579.1	588.3	588.3
32.5°	540.2	551.6	560.0	570.0	572.2
35°	518.8	531.0	541.0	552.4	555.5
37.5°	495.9	509.7	521.1	534.1	536.4
40°	473.1	486.8	502.1	515.0	518.1
42.5°	447.9	465.4	481.5	495.9	500.5
45°	424.2	442.5	461.6	476.1	482.2
47.5°	399.0	419.6	441.0	457.0	461.6
50°	374.6	396.0	419.6	437.2	442.5
52.5°	348.7	371.6	398.3	416.6	423.5
55°	323.5	348.7	376.2	396.8	402.9
57.5°	299.1	325.0	354.8	375.4	382.3
60°	273.2	300.6	331.9	353.3	361.7
62.5°	248.7	277.0	310.5	331.9	339.5
65°	223.6	253.3	286.9	309.8	317.4
67.5°	198.4	229.7	263.2	288.4	294.5
70°	171.7	204.5	241.1	265.5	273.2
72.5°	147.3	180.1	218.2	243.4	251.0
75°	121.3	157.2	195.3	220.5	229.7
77.5°	99.2	135.1	173.2	199.9	206.8
80°	75.5	112.9	152.6	178.5	186.2
82.5°	54.9	93.1	133.5	159.5	167.1
85°	37.4	75.5	116.0	141.9	149.5
87.5°	22.9	61.0	100.0	125.9	133.5
90°	10.4	52.3	97.2	125.0	133.5
92.5°	22.9	58.5	99.3	125.9	131.9
95°	35.4	68.3	109.4	134.9	142.5
97.5°	52.0	81.8	120.5	145.6	152.8
100°	69.2	96.3	133.7	157.2	165.7
102.5°	89.0	111.8	149.3	172.1	179.2
105°	109.2	128.4	165.3	186.7	194.5
107.5°	132.2	148.7	181.8	203.8	210.2
110°	153.5	168.1	199.5	221.2	226.4

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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	176.4	187.5	216.5	237.8	244.7
115°	198.5	209.1	235.5	254.4	260.0
117.5°	221.8	228.4	253.5	271.8	276.5
120°	242.7	249.2	272.0	289.2	293.6
122.5°	265.1	268.5	291.1	306.6	310.6
125°	287.2	288.6	309.8	324.0	327.5
127.5°	308.3	310.2	328.4	341.0	344.4
130°	329.4	332.2	346.2	358.8	360.2
132.5°	349.6	353.3	363.9	375.3	378.3
135°	371.2	373.2	381.2	393.0	395.9
137.5°	390.9	392.5	399.1	409.0	411.5
140°	410.8	413.1	415.8	426.8	427.4
142.5°	429.6	431.1	432.0	441.4	442.9
145°	449.3	449.4	450.8	456.4	457.7
147.5°	465.4	467.2	468.6	470.9	471.2
150°	483.3	484.2	485.1	485.1	483.9
152.5°	497.9	499.3	499.8	500.7	498.4
155°	513.5	513.5	514.0	515.8	512.6
157.5°	526.8	526.3	526.8	528.6	525.9
160°	539.2	538.2	538.2	540.5	538.7
162.5°	550.2	548.8	549.2	551.5	548.3
165°	559.3	557.9	557.9	560.7	557.5
167.5°	567.1	565.3	565.7	568.5	565.7
170°	573.5	571.7	571.7	574.9	571.7
172.5°	578.6	576.7	576.7	579.5	576.3
175°	581.8	579.9	579.9	582.7	579.5
177.5°	583.6	581.8	581.8	584.5	581.3
180°	583.1	583.1	583.1	583.1	583.1

(END OF REPORT)