

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: P998508

Luminaire Tested: S124DR-B350DB50-4F0-XX-W2A-F

Issue Date: 5/2/2025

Test Information

Test Method: LM-79-2019
Report Number: P998508
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1802-639-5)
Test Lab: INNOVATION CENTER
Issue Date: 5/2/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S124DR-B350DB50-4F0-XX-W2A-F
Description: Define 4 Direct Recessed with 5000K BioUP LEDs {m-DER=1.015} {m-EER=1.115}
Light Source: -
Ballast/Driver: -

Summary

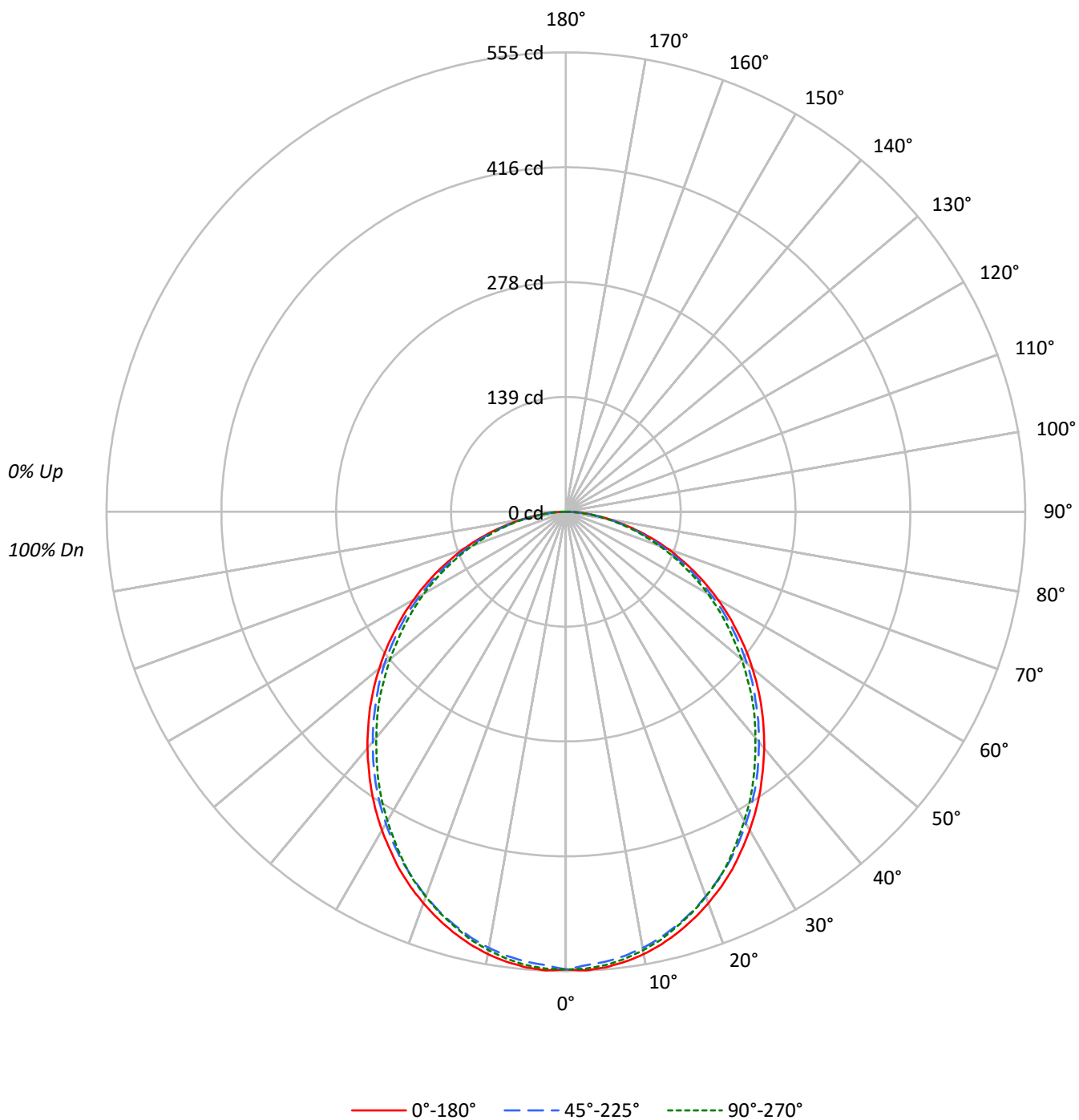
Lumens per Lamp: N/A
Luminaire Lumens: 1419.0 lumens
Efficiency: N/A
Efficacy: 109.2 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.17 / 1.29
Luminous Opening: Rectangular (W 0.33' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 13
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
RCR																	
0	119	119	119	119	116	116	116	116	111	111	111		106	106	106		102
1	109	104	100	96	106	102	98	95	98	95	92		94	91	89		90
2	99	91	84	79	97	89	83	78	86	80	76		82	78	74		79
3	91	80	72	66	88	79	71	65	76	69	64		73	67	63		70
4	83	71	63	56	81	70	62	56	67	60	55		65	59	54		63
5	77	64	55	48	74	63	54	48	61	53	48		59	52	47		57
6	71	58	49	42	69	57	48	42	55	47	42		53	47	41		52
7	66	52	44	38	64	52	43	37	50	43	37		49	42	37		47
8	61	48	39	34	60	47	39	34	46	39	33		45	38	33		43
9	57	44	36	30	56	43	36	30	42	35	30		41	35	30		40
10	54	41	33	28	52	40	33	28	39	32	27		38	32	27		37

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	4509	4509	4509
5°	4522	4468	4500
10°	4494	4431	4453
15°	4439	4368	4379
20°	4367	4290	4294
25°	4285	4201	4189
30°	4184	4096	4058
35°	4079	3987	3933
40°	3971	3862	3792
45°	3858	3740	3668
50°	3731	3631	3518
55°	3595	3489	3375
60°	3461	3330	3229
65°	3307	3180	3051
70°	3138	2978	2863
75°	2877	2735	2665
80°	2559	2456	2390
85°	2236	2152	2115

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 3858 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	52.1	3.7
10°-20°	146.8	10.3
20°-30°	216.1	15.2
30°-40°	251.2	17.7
40°-50°	251.1	17.7
50°-60°	219.6	15.5
60°-70°	163.1	11.5
70°-80°	92.5	6.5
80°-90°	26.5	1.9
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	415.0	29.2
0°-40°	666.1	46.9
0°-60°	1136.9	80.1
0°-90°	1419.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1419.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	553	553	553	553	553	
5°	552	551	546	551	550	52
15°	526	524	517	520	519	148
25°	476	473	467	467	466	219
35°	410	407	400	397	395	256
45°	334	331	324	319	318	258
55°	253	252	245	240	237	227
65°	171	169	165	160	158	170
75°	91	89	87	85	85	97
85°	24	24	23	23	23	27
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	552.9	552.9	552.9	552.9	552.9
2.5°	554.6	553.3	548.4	552.9	552.4
5°	552.4	550.6	545.8	550.6	549.8
7.5°	548.4	546.6	541.3	545.3	544.9
10°	542.7	540.9	535.1	538.7	537.8
12.5°	535.1	533.4	527.2	531.1	529.8
15°	525.8	524.1	517.4	520.1	518.7
17.5°	515.2	513.0	506.8	508.6	507.7
20°	503.2	501.0	494.4	495.7	494.8
22.5°	490.4	487.3	480.6	483.3	481.5
25°	476.2	473.1	466.9	467.4	465.6
27.5°	460.3	457.2	451.4	450.5	448.3
30°	444.3	440.8	435.0	433.2	431.0
32.5°	427.5	424.4	418.2	416.0	413.8
35°	409.8	406.7	400.5	397.4	395.1
37.5°	391.2	388.5	381.9	378.8	375.7
40°	373.0	369.5	362.8	358.4	356.2
42.5°	353.5	351.7	344.2	338.9	337.6
45°	334.5	331.4	324.3	319.4	318.1
47.5°	314.5	312.3	305.7	300.3	296.8
50°	294.1	292.4	286.2	280.0	277.3
52.5°	274.2	272.0	265.4	260.0	256.5
55°	252.9	251.6	245.4	240.1	237.4
57.5°	233.0	231.7	225.5	220.2	217.5
60°	212.2	210.0	204.2	200.2	198.0
62.5°	191.8	190.0	183.8	180.3	178.1
65°	171.4	169.2	164.8	160.4	158.1
67.5°	150.6	148.8	144.4	140.0	139.5
70°	131.6	128.5	124.9	121.4	120.1
72.5°	111.2	108.1	105.4	102.8	101.4
75°	91.3	89.0	86.8	85.1	84.6
77.5°	71.8	70.9	68.7	68.2	66.9
80°	54.5	53.2	52.3	51.4	50.9
82.5°	37.7	37.2	37.2	36.8	36.3
85°	23.9	23.9	23.0	23.0	22.6
87.5°	11.5	11.1	10.6	10.6	10.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)