

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: P998480

Luminaire Tested: S124DR-B350DB27-4F0-XX-W2A-D

Issue Date: 5/2/2025

Test Information

Test Method: LM-79-2019
Report Number: P998480
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1802-639-16)
Test Lab: INNOVATION CENTER
Issue Date: 5/2/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S124DR-B350DB27-4F0-XX-W2A-D
Description: Define 4 Direct Recessed with 2700K BioUP LEDs {m-DER=0.473} {m-EER=0.52}
Light Source: -
Ballast/Driver: -

Summary

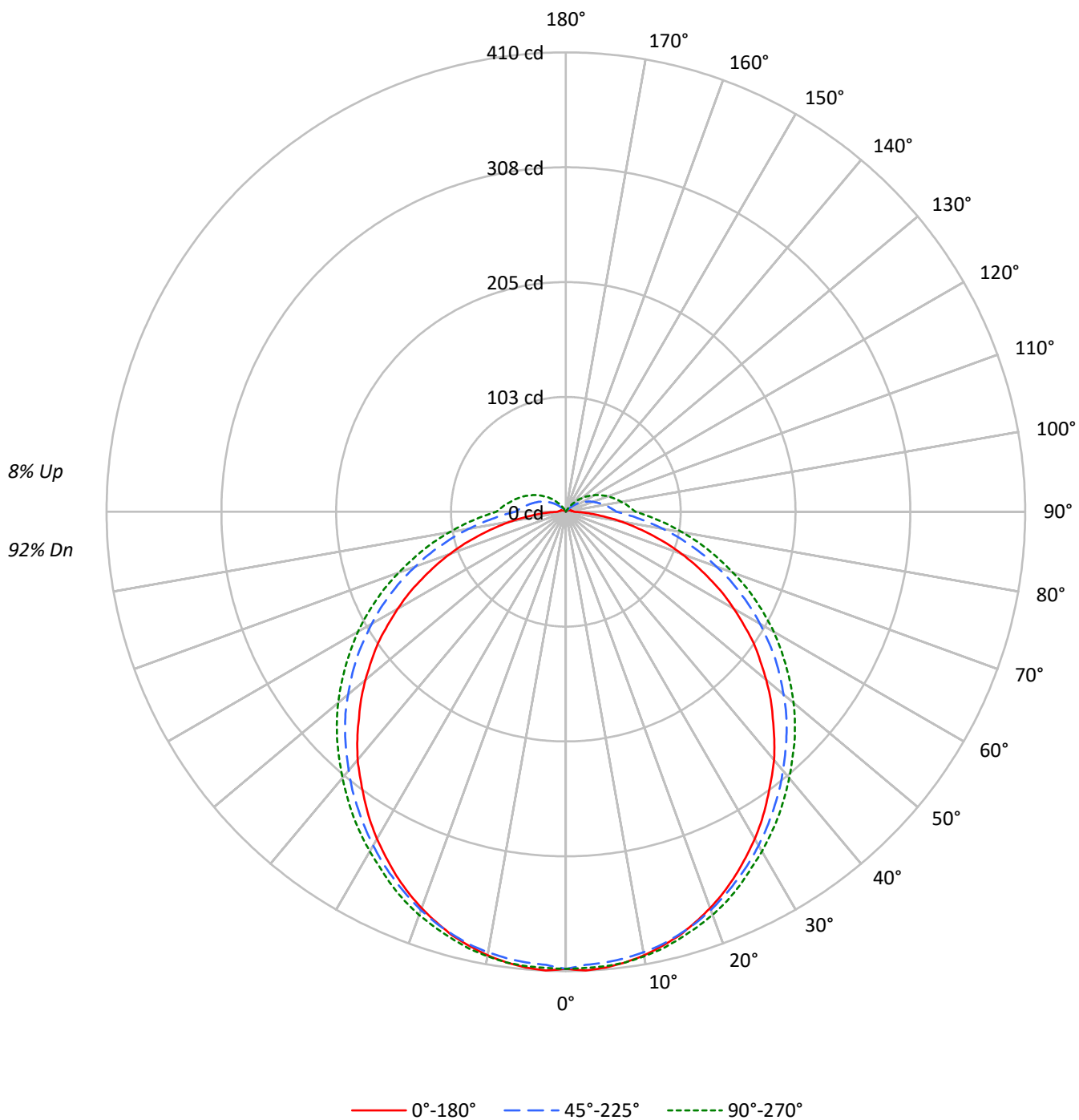
Lumens per Lamp: N/A
Luminaire Lumens: 1391.0 lumens
Efficiency: N/A
Efficacy: 107.0 lumens/watt
Spacing Criteria (0/90/45): 1.23 / 1.28 / 1.39
Luminous Opening: Rectangular (W 0.33' x L: 4' x H: 0')
CIE Type: Direct

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

TEST NUMBER: P998480

CATALOG NUMBER: S124DR-B350DB27-4F0-XX-W2A-D

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	117	117	117	117	114	114	114	114	107	107	107	101	101	101	95	95	95
1	105	100	95	91	102	97	93	89	91	88	84	86	83	80	81	79	77
2	95	86	79	73	92	84	77	71	79	73	68	74	70	66	70	67	63
3	87	75	67	60	83	73	65	59	69	62	57	65	60	55	62	57	53
4	79	66	57	50	76	65	56	49	61	54	48	58	52	47	55	49	45
5	73	59	50	43	70	58	49	42	55	47	41	52	45	40	49	44	39
6	67	53	44	37	64	52	43	37	49	42	36	47	40	35	45	39	34
7	62	48	39	33	60	47	38	32	45	37	32	43	36	31	41	35	30
8	58	44	35	29	56	43	35	29	41	33	28	39	32	28	37	31	27
9	54	40	32	26	52	39	31	26	38	30	25	36	29	25	34	29	24
10	50	37	29	24	49	36	29	23	35	28	23	33	27	23	32	26	22

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3327	3327	3327
5°	3343	3306	3332
10°	3329	3306	3337
15°	3305	3297	3329
20°	3267	3283	3323
25°	3223	3260	3309
30°	3175	3239	3296
35°	3120	3220	3297
40°	3079	3209	3302
45°	3013	3214	3329
50°	2962	3217	3367
55°	2910	3241	3411
60°	2825	3263	3495
65°	2732	3315	3606
70°	2625	3409	3779
75°	2476	3614	4146
80°	2339	4142	4954
85°	2264	5988	7691

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°

Vertical Angle: 87.5°

Luminance: 13329 cd/sqm

TEST NUMBER: P998480

CATALOG NUMBER: S124DR-B350DB27-4F0-XX-W2A-D

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	38.7	2.8
10°-20°	110.8	8.0
20°-30°	167.5	12.0
30°-40°	202.6	14.6
40°-50°	214.2	15.4
50°-60°	201.6	14.5
60°-70°	167.3	12.0
70°-80°	117.4	8.4
80°-90°	66.2	4.8
90°-100°	39.4	2.8
100°-110°	29.2	2.1
110°-120°	19.6	1.4
120°-130°	11.0	0.8
130°-140°	4.8	0.3
140°-150°	0.9	0.1
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	316.9	22.8
0°-40°	519.5	37.3
0°-60°	935.3	67.2
0°-90°	1286.1	92.5
90°-120°	88.2	6.3
90°-150°	104.9	7.5
90°-180°	105.0	7.5
0°-180°	1391.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	408	408	408	408	408	
5°	408	407	404	408	407	39
15°	392	392	391	395	394	110
25°	358	361	362	367	368	165
35°	313	319	324	330	331	196
45°	261	270	279	286	289	202
55°	205	214	228	237	240	182
65°	142	156	172	183	187	140
75°	79	96	115	128	132	84
85°	24	43	64	78	82	25
90°	7	26	45	58	62	5
95°	6	21	40	52	56	5
105°	4	13	30	42	45	5
115°	3	7	22	32	35	3
125°	2	1	13	22	24	2
135°	1	1	4	11	14	1
145°	0	0	0	3	5	0
155°	0	0	0	0	0	0
165°	0	0	0	0	0	0
175°	0	0	0	0	0	0
180°	0	0	0	0	0	0

TEST NUMBER: P998480

CATALOG NUMBER: S124DR-B350DB27-4F0-XX-W2A-D

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	408.0	408.0	408.0	408.0	408.0
2.5°	409.8	408.4	404.8	408.0	407.5
5°	408.4	407.1	403.9	407.5	407.1
7.5°	405.7	404.8	402.0	406.2	405.7
10°	402.0	401.6	399.3	403.4	403.0
12.5°	397.0	397.0	395.7	399.3	399.3
15°	391.5	392.0	390.6	394.7	394.3
17.5°	384.2	385.6	385.1	389.3	388.8
20°	376.5	377.8	378.3	382.9	382.9
22.5°	367.8	369.6	370.5	375.1	376.0
25°	358.2	360.9	362.3	367.3	367.8
27.5°	347.7	351.8	353.6	358.2	358.6
30°	337.2	340.8	344.0	349.1	350.0
32.5°	325.8	330.3	334.0	339.9	340.8
35°	313.4	318.9	323.5	329.9	331.2
37.5°	301.1	307.5	313.0	319.4	320.7
40°	289.2	295.1	301.5	308.4	310.2
42.5°	275.5	282.3	290.1	297.9	299.3
45°	261.3	270.0	278.7	286.5	288.7
47.5°	248.1	256.8	266.8	274.6	277.3
50°	233.5	243.5	253.6	262.7	265.4
52.5°	218.8	228.9	240.8	249.9	252.7
55°	204.7	214.3	228.0	237.1	239.9
57.5°	188.7	200.6	213.8	224.8	227.1
60°	173.2	185.0	200.1	210.6	214.3
62.5°	158.1	171.3	186.4	196.9	200.6
65°	141.6	156.3	171.8	183.2	186.9
67.5°	126.1	141.6	158.1	169.5	173.2
70°	110.1	125.6	143.0	155.3	158.5
72.5°	94.6	110.6	129.3	141.2	144.8
75°	78.6	95.5	114.7	127.5	131.6
77.5°	63.5	81.3	101.4	114.2	118.8
80°	49.8	68.1	88.2	101.9	105.5
82.5°	36.1	55.3	75.4	89.5	93.7
85°	24.2	43.4	64.0	77.7	82.2
87.5°	15.1	33.8	53.9	67.2	71.3
90°	7.3	25.6	45.2	58.5	62.1
92.5°	6.9	22.8	42.5	55.3	58.9
95°	5.9	21.0	39.7	52.1	56.2
97.5°	5.5	18.7	37.5	49.3	53.5
100°	5.0	16.9	34.7	47.1	50.3
102.5°	5.0	15.1	32.4	44.3	48.0
105°	4.1	13.2	30.2	41.6	45.2
107.5°	4.1	11.9	27.9	39.3	42.5
110°	3.7	10.1	26.0	36.5	40.2

TEST NUMBER: P998480

CATALOG NUMBER: S124DR-B350DB27-4F0-XX-W2A-D

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	3.2	8.7	23.8	33.8	37.5
115°	2.7	6.9	21.5	31.5	34.7
117.5°	2.7	5.5	19.2	28.8	32.4
120°	2.3	3.7	16.9	26.0	29.7
122.5°	2.3	2.3	14.6	23.8	27.0
125°	1.8	1.4	12.8	21.5	24.2
127.5°	1.8	1.4	10.5	18.7	21.9
130°	1.4	0.9	8.2	16.4	19.2
132.5°	1.4	0.9	6.4	14.2	16.9
135°	0.9	0.9	4.1	11.4	14.2
137.5°	0.9	0.5	2.3	9.1	11.4
140°	0.9	0.5	0.9	6.9	9.1
142.5°	0.5	0.5	0.0	5.0	6.9
145°	0.5	0.0	0.0	2.7	4.6
147.5°	0.5	0.0	0.0	0.5	2.3
150°	0.5	0.0	0.0	0.0	0.0
152.5°	0.0	0.0	0.0	0.0	0.0
155°	0.0	0.0	0.0	0.0	0.0
157.5°	0.0	0.0	0.0	0.0	0.0
160°	0.0	0.0	0.0	0.0	0.0
162.5°	0.0	0.0	0.0	0.0	0.0
165°	0.0	0.0	0.0	0.0	0.0
167.5°	0.0	0.0	0.0	0.0	0.0
170°	0.0	0.0	0.0	0.0	0.0
172.5°	0.0	0.0	0.0	0.0	0.0
175°	0.0	0.0	0.0	0.0	0.0
177.5°	0.0	0.0	0.0	0.0	0.0
180°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)