

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: P998517

Luminaire Tested: S124DR-B575DB2750-4F0-XX-W2A-D_2700K

Issue Date: 5/2/2025

Test Information

Test Method: LM-79-2019
Report Number: P998517
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-B575DB2750-4F0-XX-W2A-D_2700K
Description: Define 4 Direct Recessed with 2700K BioUP LEDs {m-DER=0.473} {m-EER=0.52}
Light Source: -
Ballast/Driver: -

Summary

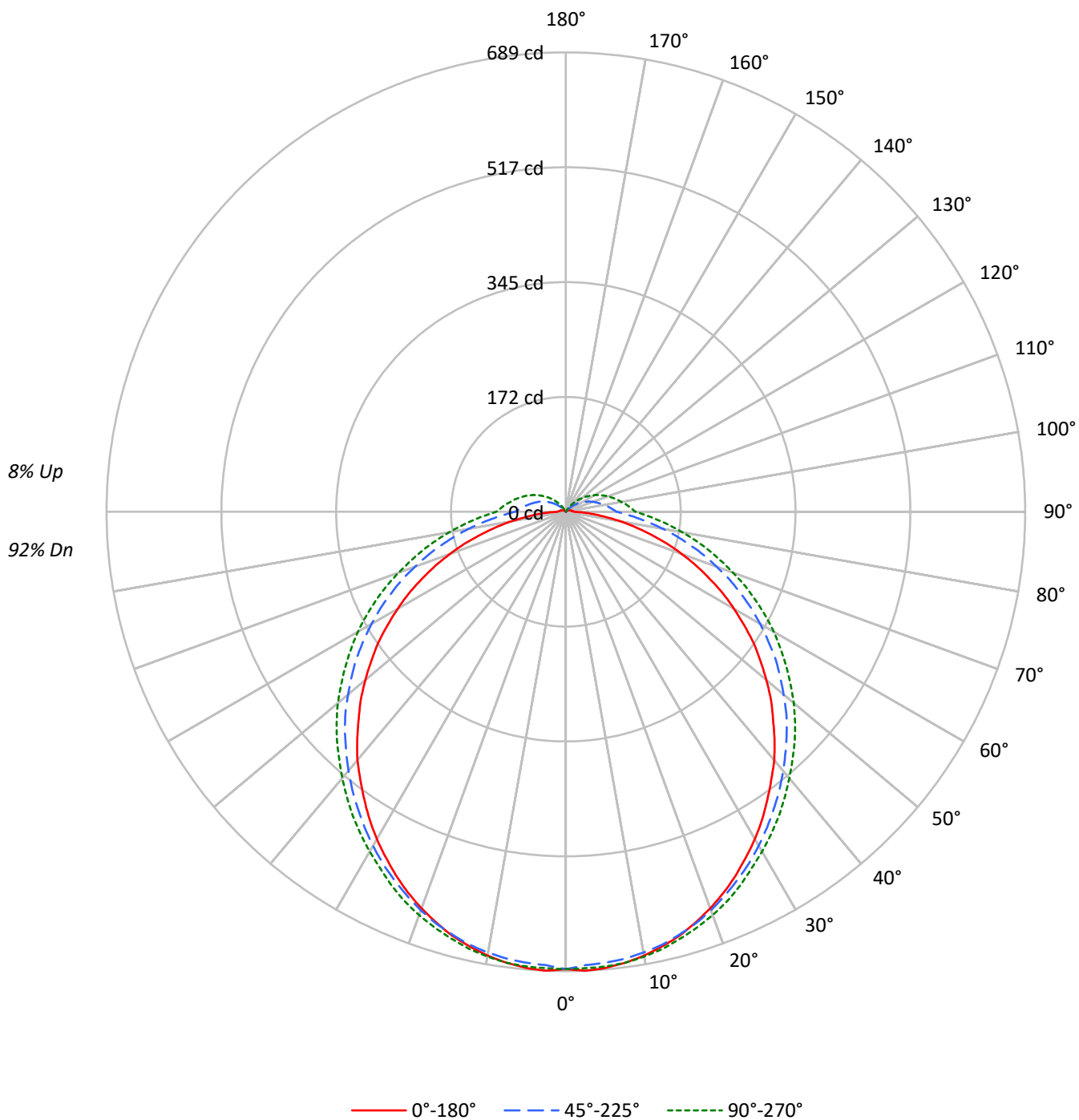
Lumens per Lamp: N/A
Luminaire Lumens: 2339.0 lumens
Efficiency: N/A
Efficacy: 97.5 lumens/watt
Spacing Criteria (0/90/45): 1.23 / 1.28 / 1.39
Luminous Opening: Rectangular (W 0.33' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 24
Input Voltage (V): 120
Input Current (A_{in}): 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			0
RW	70	50	30	10	70	50	30	10	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	95	95	92
1	105	100	95	91	102	97	93	89	91	88	84	86	83	80	81	79	77	77	77	74
2	95	86	79	73	92	84	77	71	79	73	68	74	70	66	70	67	63	63	63	60
3	87	75	67	60	83	73	65	59	69	62	57	65	60	55	62	57	53	53	53	50
4	79	66	57	50	76	65	56	49	61	54	48	58	52	47	55	49	45	45	45	43
5	73	59	50	43	70	58	49	42	55	47	41	52	45	40	49	44	39	39	39	37
6	67	53	44	37	64	52	43	37	49	42	36	47	40	35	45	39	34	34	34	32
7	62	48	39	33	60	47	38	32	45	37	32	43	36	31	41	35	30	30	30	28
8	58	44	35	29	56	43	35	29	41	33	28	39	32	28	37	31	27	27	27	25
9	54	40	32	26	52	39	31	26	38	30	25	36	29	25	34	29	24	24	24	22
10	50	37	29	24	49	36	29	23	35	28	23	33	27	23	32	26	22	22	22	20

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	5594	5594	5594
5°	5622	5559	5603
10°	5598	5559	5611
15°	5558	5545	5597
20°	5493	5520	5587
25°	5419	5481	5564
30°	5339	5447	5541
35°	5246	5414	5545
40°	5177	5397	5552
45°	5067	5404	5599
50°	4981	5409	5663
55°	4893	5451	5734
60°	4749	5488	5876
65°	4596	5574	6063
70°	4413	5734	6356
75°	4162	6074	6972
80°	3931	6964	8335
85°	3808	10067	12940

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°

Vertical Angle: 87.5°

Luminance: 22396 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	65.0	2.8
10°-20°	186.2	8.0
20°-30°	281.6	12.0
30°-40°	340.7	14.6
40°-50°	360.2	15.4
50°-60°	339.0	14.5
60°-70°	281.3	12.0
70°-80°	197.4	8.4
80°-90°	111.3	4.8
90°-100°	66.2	2.8
100°-110°	49.1	2.1
110°-120°	32.9	1.4
120°-130°	18.5	0.8
130°-140°	8.0	0.3
140°-150°	1.6	0.1
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	532.8	22.8
0°-40°	873.5	37.3
0°-60°	1572.7	67.2
0°-90°	2162.6	92.5
90°-120°	148.2	6.3
90°-150°	176.4	7.5
90°-180°	176.0	7.5
0°-180°	2339.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	686	686	686	686	686	
5°	687	684	679	685	684	65
15°	658	659	657	664	663	186
25°	602	607	609	618	618	277
35°	527	536	544	555	557	330
45°	439	454	469	482	486	340
55°	344	360	383	399	403	307
65°	238	263	289	308	314	236
75°	132	161	193	214	221	140
85°	41	73	108	131	138	42
90°	12	43	76	98	104	8
95°	10	35	67	88	94	8
105°	7	22	51	70	76	8
115°	5	12	36	53	58	5
125°	3	2	22	36	41	3
135°	2	2	7	19	24	1
145°	1	0	0	5	8	1
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

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	686.0	686.0	686.0	686.0	686.0
2.5°	689.1	686.8	680.7	686.0	685.3
5°	686.8	684.5	679.1	685.3	684.5
7.5°	682.2	680.7	676.1	683.0	682.2
10°	676.1	675.3	671.4	678.4	677.6
12.5°	667.6	667.6	665.3	671.4	671.4
15°	658.4	659.2	656.8	663.8	663.0
17.5°	646.1	648.4	647.6	654.5	653.8
20°	633.0	635.3	636.1	643.8	643.8
22.5°	618.4	621.5	623.0	630.7	632.3
25°	602.3	606.9	609.2	617.7	618.4
27.5°	584.6	591.5	594.6	602.3	603.1
30°	567.0	573.1	578.5	586.9	588.5
32.5°	547.8	555.4	561.6	571.6	573.1
35°	527.0	536.2	543.9	554.7	557.0
37.5°	506.3	517.0	526.2	537.0	539.3
40°	486.3	496.3	507.0	518.6	521.6
42.5°	463.3	474.8	487.8	500.9	503.2
45°	439.4	454.0	468.6	481.7	485.5
47.5°	417.2	431.8	448.7	461.7	466.3
50°	392.6	409.5	426.4	441.7	446.4
52.5°	368.0	384.9	404.9	420.2	424.8
55°	344.2	360.3	383.4	398.7	403.3
57.5°	317.3	337.3	359.5	378.0	381.8
60°	291.2	311.1	336.5	354.2	360.3
62.5°	265.8	288.1	313.4	331.1	337.3
65°	238.2	262.7	288.9	308.1	314.2
67.5°	212.0	238.2	265.8	285.0	291.2
70°	185.1	211.3	240.5	261.2	266.6
72.5°	159.0	185.9	217.4	237.4	243.5
75°	132.1	160.6	192.8	214.3	221.3
77.5°	106.8	136.7	170.6	192.1	199.7
80°	83.7	114.5	148.3	171.3	177.5
82.5°	60.7	93.0	126.8	150.6	157.5
85°	40.7	73.0	107.6	130.6	138.3
87.5°	25.4	56.9	90.7	112.9	119.8
90°	12.3	43.0	76.1	98.3	104.5
92.5°	11.5	38.4	71.4	93.0	99.1
95°	10.0	35.3	66.8	87.6	94.5
97.5°	9.2	31.5	63.0	83.0	89.9
100°	8.5	28.4	58.4	79.1	84.5
102.5°	8.5	25.4	54.5	74.5	80.7
105°	6.9	22.3	50.7	69.9	76.1
107.5°	6.9	20.0	46.9	66.1	71.4
110°	6.1	16.9	43.8	61.5	67.6



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	5.4	14.6	39.9	56.9	63.0
115°	4.6	11.5	36.1	53.0	58.4
117.5°	4.6	9.2	32.3	48.4	54.5
120°	3.8	6.1	28.4	43.8	49.9
122.5°	3.8	3.8	24.6	39.9	45.3
125°	3.1	2.3	21.5	36.1	40.7
127.5°	3.1	2.3	17.7	31.5	36.9
130°	2.3	1.5	13.8	27.7	32.3
132.5°	2.3	1.5	10.8	23.8	28.4
135°	1.5	1.5	6.9	19.2	23.8
137.5°	1.5	0.8	3.8	15.4	19.2
140°	1.5	0.8	1.5	11.5	15.4
142.5°	0.8	0.8	0.0	8.5	11.5
145°	0.8	0.0	0.0	4.6	7.7
147.5°	0.8	0.0	0.0	0.8	3.8
150°	0.8	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)