

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: P998558

Luminaire Tested: S124DR-B795DB30-4F0-XX-W2A-D

Issue Date: 5/2/2025

Test Information

Test Method: LM-79-2019
Report Number: P998558
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-B795DB30-4F0-XX-W2A-D
Description: Define 4 Direct Recessed with 3000K BioUP LEDs {m-DER=0.589} {m-EER=0.647}
Light Source: -
Ballast/Driver: -

Summary

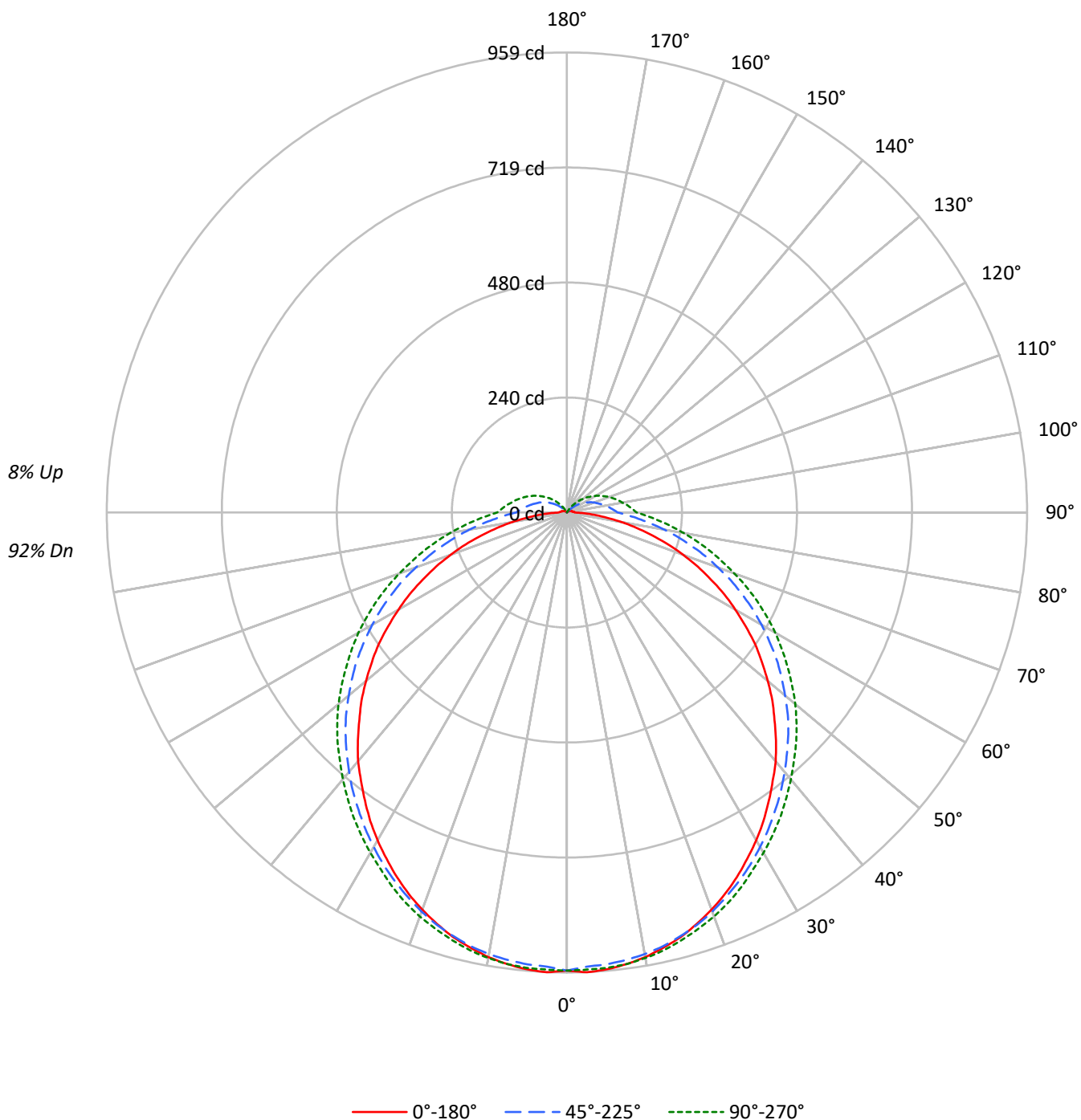
Lumens per Lamp: N/A
Luminaire Lumens: 3256.0 lumens
Efficiency: N/A
Efficacy: 90.7 lumens/watt
Spacing Criteria (0/90/45): 1.23 / 1.28 / 1.39
Luminous Opening: Rectangular (W 0.33' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 35.9
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	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°	7788	7788	7788
5°	7826	7739	7800
10°	7793	7740	7810
15°	7737	7719	7791
20°	7647	7684	7777
25°	7543	7631	7746
30°	7431	7583	7714
35°	7303	7538	7718
40°	7207	7513	7729
45°	7054	7524	7795
50°	6933	7529	7882
55°	6811	7586	7983
60°	6610	7639	8181
65°	6396	7759	8440
70°	6144	7980	8848
75°	5794	8456	9704
80°	5476	9692	11599
85°	5305	14006	18011

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°

Vertical Angle: 87.5°

Luminance: 31183 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	90.5	2.8
10°-20°	259.3	8.0
20°-30°	392.0	12.0
30°-40°	474.3	14.6
40°-50°	501.4	15.4
50°-60°	471.9	14.5
60°-70°	391.5	12.0
70°-80°	274.8	8.4
80°-90°	154.9	4.8
90°-100°	92.2	2.8
100°-110°	68.3	2.1
110°-120°	45.8	1.4
120°-130°	25.8	0.8
130°-140°	11.2	0.3
140°-150°	2.2	0.1
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	741.8	22.8
0°-40°	1216.0	37.3
0°-60°	2189.2	67.2
0°-90°	3010.5	92.5
90°-120°	206.3	6.3
90°-150°	245.5	7.5
90°-180°	246.0	7.6
0°-180°	3256.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	955	955	955	955	955	
5°	956	953	945	954	953	91
15°	916	918	914	924	923	258
25°	838	845	848	860	861	386
35°	734	746	757	772	775	459
45°	612	632	652	670	676	473
55°	479	502	534	555	562	427
65°	332	366	402	429	437	329
75°	184	224	268	298	308	195
85°	57	102	150	182	192	59
90°	17	60	106	137	145	12
95°	14	49	93	122	132	11
105°	10	31	71	97	106	11
115°	6	16	50	74	81	7
125°	4	3	30	50	57	4
135°	2	2	10	27	33	2
145°	1	0	0	6	11	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°	955.0	955.0	955.0	955.0	955.0
2.5°	959.3	956.1	947.5	955.0	953.9
5°	956.1	952.9	945.4	953.9	952.9
7.5°	949.7	947.5	941.1	950.7	949.7
10°	941.1	940.0	934.7	944.3	943.2
12.5°	929.3	929.3	926.1	934.7	934.7
15°	916.5	917.6	914.4	924.0	922.9
17.5°	899.4	902.6	901.5	911.2	910.1
20°	881.2	884.4	885.5	896.2	896.2
22.5°	860.9	865.2	867.3	878.0	880.1
25°	838.4	844.9	848.1	859.8	860.9
27.5°	813.8	823.5	827.7	838.4	839.5
30°	789.2	797.8	805.3	817.0	819.2
32.5°	762.5	773.2	781.8	795.7	797.8
35°	733.6	746.5	757.2	772.1	775.3
37.5°	704.8	719.7	732.6	747.5	750.7
40°	677.0	690.9	705.8	721.9	726.1
42.5°	644.9	660.9	679.1	697.3	700.5
45°	611.7	632.0	652.4	670.5	675.9
47.5°	580.7	601.0	624.5	642.7	649.1
50°	546.5	570.0	593.5	614.9	621.3
52.5°	512.3	535.8	563.6	585.0	591.4
55°	479.1	501.6	533.6	555.0	561.5
57.5°	441.7	469.5	500.5	526.2	531.5
60°	405.3	433.1	468.4	493.0	501.6
62.5°	370.0	401.0	436.3	460.9	469.5
65°	331.5	365.7	402.1	428.8	437.4
67.5°	295.2	331.5	370.0	396.8	405.3
70°	257.7	294.1	334.7	363.6	371.1
72.5°	221.4	258.8	302.6	330.5	339.0
75°	183.9	223.5	268.4	298.4	308.0
77.5°	148.7	190.4	237.4	267.4	278.1
80°	116.6	159.3	206.4	238.5	247.0
82.5°	84.5	129.4	176.5	209.6	219.2
85°	56.7	101.6	149.7	181.8	192.5
87.5°	35.3	79.1	126.2	157.2	166.8
90°	17.1	59.9	105.9	136.9	145.4
92.5°	16.0	53.5	99.5	129.4	138.0
95°	13.9	49.2	93.0	121.9	131.5
97.5°	12.8	43.8	87.7	115.5	125.1
100°	11.8	39.6	81.3	110.2	117.6
102.5°	11.8	35.3	75.9	103.7	112.3
105°	9.6	31.0	70.6	97.3	105.9
107.5°	9.6	27.8	65.2	92.0	99.5
110°	8.6	23.5	61.0	85.6	94.1



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	7.5	20.3	55.6	79.1	87.7
115°	6.4	16.0	50.3	73.8	81.3
117.5°	6.4	12.8	44.9	67.4	75.9
120°	5.3	8.6	39.6	61.0	69.5
122.5°	5.3	5.3	34.2	55.6	63.1
125°	4.3	3.2	29.9	50.3	56.7
127.5°	4.3	3.2	24.6	43.8	51.3
130°	3.2	2.1	19.2	38.5	44.9
132.5°	3.2	2.1	15.0	33.2	39.6
135°	2.1	2.1	9.6	26.7	33.2
137.5°	2.1	1.1	5.3	21.4	26.7
140°	2.1	1.1	2.1	16.0	21.4
142.5°	1.1	1.1	0.0	11.8	16.0
145°	1.1	0.0	0.0	6.4	10.7
147.5°	1.1	0.0	0.0	1.1	5.3
150°	1.1	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)