

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: P998567

Luminaire Tested: S124DR-B795DB50-4F0-XX-W2A-D

Issue Date: 5/2/2025

Test Information

Test Method: LM-79-2019
Report Number: P998567
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-B795DB50-4F0-XX-W2A-D
Description: Define 4 Direct Recessed with 5000K BioUP LEDs {m-DER=1.015} {m-EER=1.115}
Light Source: -
Ballast/Driver: -

Summary

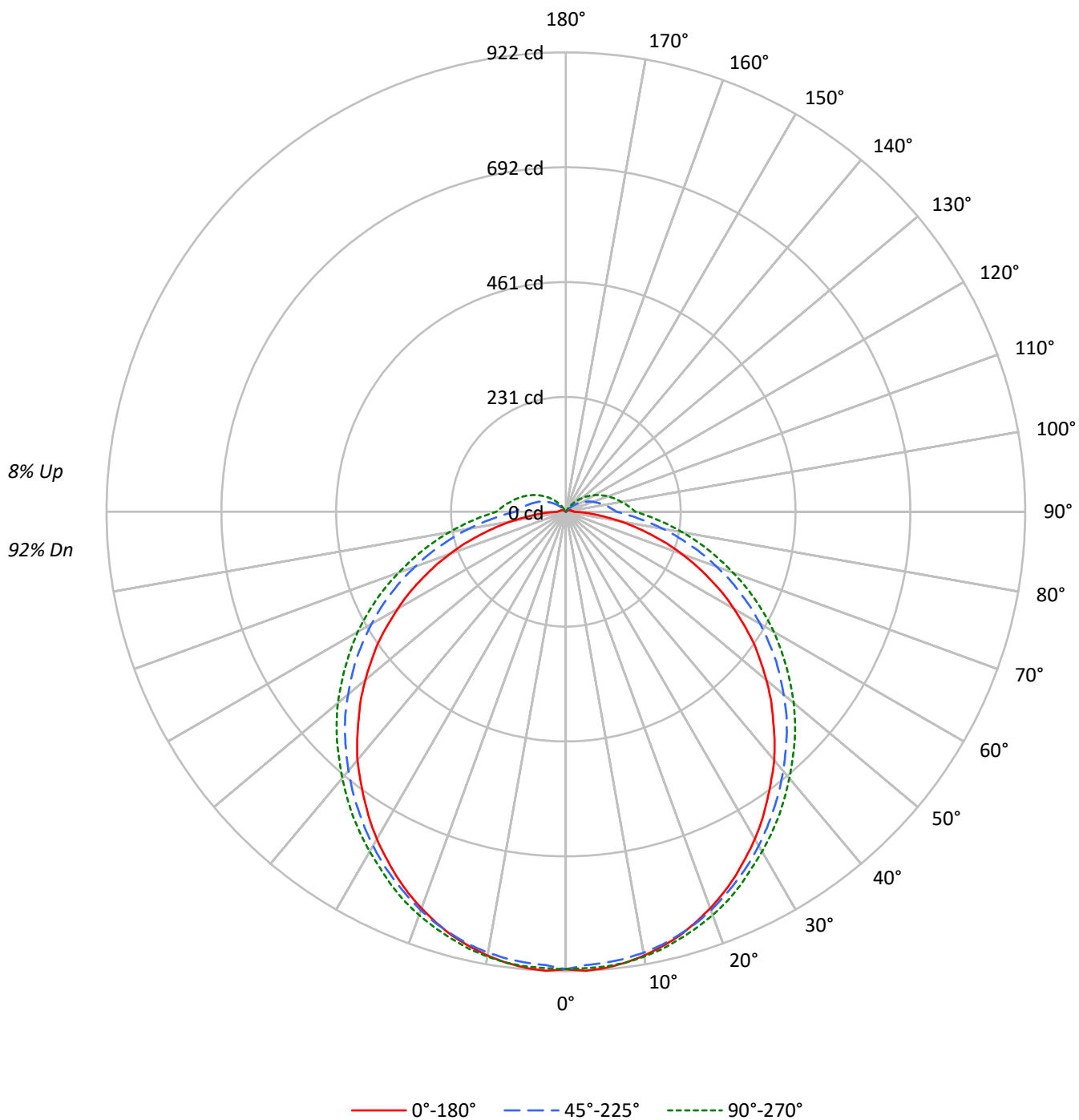
Lumens per Lamp: N/A
Luminaire Lumens: 3130.0 lumens
Efficiency: N/A
Efficacy: 87.2 lumens/watt
Spacing Criteria (0/90/45): 1.23 / 1.28 / 1.39
Luminous Opening: Rectangular (W 0.33' x L: 4' x H: 0')
CIE Type: Direct

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
RCR																	
0	117	117	117	117	114	114	114	114	107	107	107		101	101	101		95
1	105	100	95	91	102	97	93	89	91	88	84		86	83	80		81
2	95	86	79	73	92	84	77	71	79	73	68		74	70	66		70
3	87	75	67	60	83	73	65	59	69	62	57		65	60	55		62
4	79	66	57	50	76	65	56	49	61	54	48		58	52	47		55
5	73	59	50	43	70	58	49	42	55	47	41		52	45	40		49
6	67	53	44	37	64	52	43	37	49	42	36		47	40	35		45
7	62	48	39	33	60	47	38	32	45	37	32		43	36	31		41
8	58	44	35	29	56	43	35	29	41	33	28		39	32	28		37
9	54	40	32	26	52	39	31	26	38	30	25		36	29	25		34
10	50	37	29	24	49	36	29	23	35	28	23		33	27	23		32

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	7486	7486	7486
5°	7523	7439	7498
10°	7491	7440	7508
15°	7438	7421	7490
20°	7351	7387	7476
25°	7252	7335	7446
30°	7144	7289	7415
35°	7020	7246	7419
40°	6928	7223	7430
45°	6781	7232	7492
50°	6664	7239	7577
55°	6548	7293	7673
60°	6354	7344	7864
65°	6149	7458	8114
70°	5908	7672	8504
75°	5570	8129	9329
80°	5264	9317	11153
85°	5099	13464	17309

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°

Vertical Angle: 87.5°

Luminance: 29986 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	87.0	2.8
10°-20°	249.2	8.0
20°-30°	376.8	12.0
30°-40°	455.9	14.6
40°-50°	482.0	15.4
50°-60°	453.6	14.5
60°-70°	376.4	12.0
70°-80°	264.1	8.4
80°-90°	148.9	4.8
90°-100°	88.6	2.8
100°-110°	65.6	2.1
110°-120°	44.1	1.4
120°-130°	24.8	0.8
130°-140°	10.7	0.3
140°-150°	2.1	0.1
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	713.1	22.8
0°-40°	1169.0	37.3
0°-60°	2104.5	67.2
0°-90°	2894.0	92.5
90°-120°	198.3	6.3
90°-150°	236.0	7.5
90°-180°	236.0	7.5
0°-180°	3130.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	918	918	918	918	918	
5°	919	916	909	917	916	87
15°	881	882	879	888	887	248
25°	806	812	815	827	828	371
35°	705	718	728	742	745	442
45°	588	608	627	645	650	454
55°	461	482	513	534	540	410
65°	319	352	386	412	420	316
75°	177	215	258	287	296	188
85°	54	98	144	175	185	57
90°	16	58	102	132	140	11
95°	13	47	89	117	126	11
105°	9	30	68	94	102	10
115°	6	15	48	71	78	7
125°	4	3	29	48	54	4
135°	2	2	9	26	32	2
145°	1	0	0	6	10	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°	918.0	918.0	918.0	918.0	918.0
2.5°	922.2	919.1	910.9	918.0	917.0
5°	919.1	916.0	908.8	917.0	916.0
7.5°	912.9	910.9	904.7	913.9	912.9
10°	904.7	903.7	898.5	907.8	906.7
12.5°	893.4	893.4	890.3	898.5	898.5
15°	881.0	882.1	879.0	888.2	887.2
17.5°	864.6	867.7	866.6	875.9	874.9
20°	847.1	850.2	851.2	861.5	861.5
22.5°	827.6	831.7	833.7	844.0	846.1
25°	806.0	812.2	815.2	826.6	827.6
27.5°	782.3	791.6	795.7	806.0	807.0
30°	758.7	766.9	774.1	785.4	787.5
32.5°	733.0	743.3	751.5	764.9	766.9
35°	705.2	717.6	727.9	742.3	745.3
37.5°	677.5	691.9	704.2	718.6	721.7
40°	650.8	664.1	678.5	693.9	698.0
42.5°	619.9	635.3	652.8	670.3	673.4
45°	588.0	607.6	627.1	644.6	649.7
47.5°	558.2	577.8	600.4	617.9	624.0
50°	525.3	547.9	570.6	591.1	597.3
52.5°	492.4	515.1	541.8	562.3	568.5
55°	460.6	482.2	513.0	533.6	539.7
57.5°	424.6	451.3	481.1	505.8	510.9
60°	389.6	416.4	450.3	473.9	482.2
62.5°	355.7	385.5	419.4	443.1	451.3
65°	318.7	351.6	386.5	412.2	420.5
67.5°	283.7	318.7	355.7	381.4	389.6
70°	247.8	282.7	321.8	349.5	356.7
72.5°	212.8	248.8	290.9	317.7	325.9
75°	176.8	214.9	258.0	286.8	296.1
77.5°	142.9	183.0	228.2	257.0	267.3
80°	112.1	153.2	198.4	229.3	237.5
82.5°	81.2	124.4	169.6	201.5	210.7
85°	54.5	97.7	143.9	174.8	185.0
87.5°	33.9	76.1	121.3	151.1	160.4
90°	16.4	57.6	101.8	131.6	139.8
92.5°	15.4	51.4	95.6	124.4	132.6
95°	13.4	47.3	89.4	117.2	126.4
97.5°	12.3	42.1	84.3	111.0	120.3
100°	11.3	38.0	78.1	105.9	113.1
102.5°	11.3	33.9	73.0	99.7	107.9
105°	9.3	29.8	67.9	93.6	101.8
107.5°	9.3	26.7	62.7	88.4	95.6
110°	8.2	22.6	58.6	82.2	90.5

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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	7.2	19.5	53.5	76.1	84.3
115°	6.2	15.4	48.3	70.9	78.1
117.5°	6.2	12.3	43.2	64.8	73.0
120°	5.1	8.2	38.0	58.6	66.8
122.5°	5.1	5.1	32.9	53.5	60.7
125°	4.1	3.1	28.8	48.3	54.5
127.5°	4.1	3.1	23.6	42.1	49.3
130°	3.1	2.1	18.5	37.0	43.2
132.5°	3.1	2.1	14.4	31.9	38.0
135°	2.1	2.1	9.3	25.7	31.9
137.5°	2.1	1.0	5.1	20.6	25.7
140°	2.1	1.0	2.1	15.4	20.6
142.5°	1.0	1.0	0.0	11.3	15.4
145°	1.0	0.0	0.0	6.2	10.3
147.5°	1.0	0.0	0.0	1.0	5.1
150°	1.0	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)