

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: P998549

Luminaire Tested: S124DR-B795DB2750-4F0-XX-W2A-D_3500K

Issue Date: 5/2/2025

Test Information

Test Method: LM-79-2019
Report Number: P998549
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-B795DB2750-4F0-XX-W2A-D_3500K
Description: Define 4 Direct Recessed with 3500K BioUP LEDs {m-DER=0.721} {m-EER=0.792}
Light Source: -
Ballast/Driver: -

Summary

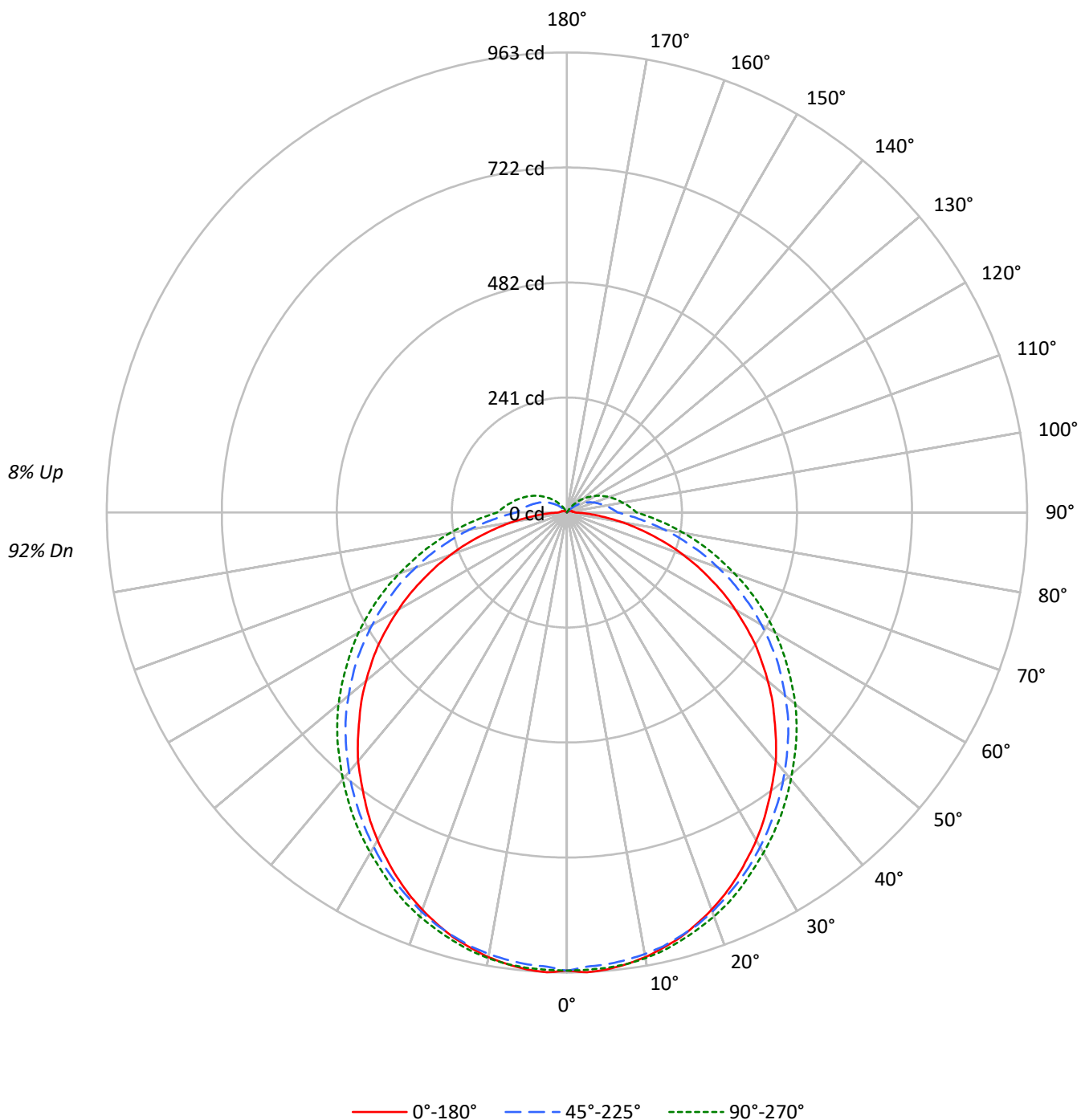
Lumens per Lamp: N/A
Luminaire Lumens: 3270.0 lumens
Efficiency: N/A
Efficacy: 91.1 lumens/watt
Spacing Criteria (0/90/45): 1.23 / 1.28 / 1.39
Luminous Opening: Rectangular (W 0.33' x L: 4' x H: 0')
CIE Type: Direct

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				0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0			
RCR																					
0	117	117	117	117	114	114	114	114	107	107	107	101	101	101	95	95	95	92			
1	105	100	95	91	102	97	93	89	91	88	84	86	83	80	81	79	77	74			
2	95	86	79	73	92	84	77	71	79	73	68	74	70	66	70	67	63	60			
3	87	75	67	60	83	73	65	59	69	62	57	65	60	55	62	57	53	50			
4	79	66	57	50	76	65	56	49	61	54	48	58	52	47	55	49	45	43			
5	73	59	50	43	70	58	49	42	55	47	41	52	45	40	49	44	39	37			
6	67	53	44	37	64	52	43	37	49	42	36	47	40	35	45	39	34	32			
7	62	48	39	33	60	47	38	32	45	37	32	43	36	31	41	35	30	28			
8	58	44	35	29	56	43	35	29	41	33	28	39	32	28	37	31	27	25			
9	54	40	32	26	52	39	31	26	38	30	25	36	29	25	34	29	24	22			
10	50	37	29	24	49	36	29	23	35	28	23	33	27	23	32	26	22	20			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	7821	7821	7821
5°	7860	7771	7834
10°	7826	7773	7844
15°	7770	7752	7825
20°	7680	7717	7810
25°	7576	7663	7779
30°	7463	7615	7747
35°	7335	7570	7752
40°	7237	7546	7763
45°	7084	7556	7828
50°	6962	7562	7916
55°	6841	7619	8017
60°	6639	7672	8215
65°	6423	7791	8476
70°	6170	8016	8886
75°	5819	8494	9745
80°	5499	9735	11651
85°	5324	14072	18086

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°

Vertical Angle: 87.5°

Luminance: 31313 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	90.9	2.8
10°-20°	260.4	8.0
20°-30°	393.7	12.0
30°-40°	476.3	14.6
40°-50°	503.5	15.4
50°-60°	473.9	14.5
60°-70°	393.2	12.0
70°-80°	276.0	8.4
80°-90°	155.6	4.8
90°-100°	92.6	2.8
100°-110°	68.6	2.1
110°-120°	46.0	1.4
120°-130°	25.9	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°	744.9	22.8
0°-40°	1221.2	37.3
0°-60°	2198.6	67.2
0°-90°	3023.4	92.5
90°-120°	207.2	6.3
90°-150°	246.6	7.5
90°-180°	247.0	7.6
0°-180°	3270.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	959	959	959	959	959	
5°	960	957	949	958	957	91
15°	920	922	918	928	927	259
25°	842	848	852	864	865	388
35°	737	750	760	776	779	461
45°	614	635	655	673	679	475
55°	481	504	536	557	564	429
65°	333	367	404	431	439	330
75°	185	224	270	300	309	196
85°	57	102	150	183	193	59
90°	17	60	106	138	146	12
95°	14	49	93	122	132	11
105°	10	31	71	98	106	11
115°	6	16	50	74	82	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°	959.1	959.1	959.1	959.1	959.1
2.5°	963.4	960.2	951.6	959.1	958.0
5°	960.2	957.0	949.4	958.0	957.0
7.5°	953.7	951.6	945.1	954.8	953.7
10°	945.1	944.1	938.7	948.4	947.3
12.5°	933.3	933.3	930.1	938.7	938.7
15°	920.4	921.5	918.3	928.0	926.9
17.5°	903.3	906.5	905.4	915.1	914.0
20°	885.0	888.2	889.3	900.0	900.0
22.5°	864.6	868.9	871.0	881.8	883.9
25°	842.0	848.5	851.7	863.5	864.6
27.5°	817.3	827.0	831.3	842.0	843.1
30°	792.6	801.2	808.7	820.6	822.7
32.5°	765.8	776.5	785.1	799.1	801.2
35°	736.8	749.7	760.4	775.5	778.7
37.5°	707.8	722.8	735.7	750.7	754.0
40°	679.9	693.8	708.9	725.0	729.3
42.5°	647.6	663.8	682.0	700.3	703.5
45°	614.3	634.8	655.2	673.4	678.8
47.5°	583.2	603.6	627.2	645.5	651.9
50°	548.8	572.5	596.1	617.6	624.0
52.5°	514.5	538.1	566.0	587.5	593.9
55°	481.2	503.7	535.9	557.4	563.9
57.5°	443.6	471.5	502.6	528.4	533.8
60°	407.1	435.0	470.4	495.1	503.7
62.5°	371.6	402.8	438.2	462.9	471.5
65°	332.9	367.3	403.8	430.7	439.3
67.5°	296.4	332.9	371.6	398.5	407.1
70°	258.8	295.4	336.2	365.2	372.7
72.5°	222.3	259.9	304.0	331.9	340.5
75°	184.7	224.5	269.6	299.7	309.3
77.5°	149.3	191.2	238.4	268.5	279.2
80°	117.1	160.0	207.3	239.5	248.1
82.5°	84.8	130.0	177.2	210.5	220.2
85°	56.9	102.0	150.4	182.6	193.3
87.5°	35.4	79.5	126.7	157.9	167.5
90°	17.2	60.1	106.3	137.5	146.1
92.5°	16.1	53.7	99.9	130.0	138.6
95°	14.0	49.4	93.4	122.4	132.1
97.5°	12.9	44.0	88.1	116.0	125.7
100°	11.8	39.7	81.6	110.6	118.1
102.5°	11.8	35.4	76.3	104.2	112.8
105°	9.7	31.1	70.9	97.7	106.3
107.5°	9.7	27.9	65.5	92.4	99.9
110°	8.6	23.6	61.2	85.9	94.5



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	7.5	20.4	55.8	79.5	88.1
115°	6.4	16.1	50.5	74.1	81.6
117.5°	6.4	12.9	45.1	67.7	76.3
120°	5.4	8.6	39.7	61.2	69.8
122.5°	5.4	5.4	34.4	55.8	63.4
125°	4.3	3.2	30.1	50.5	56.9
127.5°	4.3	3.2	24.7	44.0	51.6
130°	3.2	2.1	19.3	38.7	45.1
132.5°	3.2	2.1	15.0	33.3	39.7
135°	2.1	2.1	9.7	26.9	33.3
137.5°	2.1	1.1	5.4	21.5	26.9
140°	2.1	1.1	2.1	16.1	21.5
142.5°	1.1	1.1	0.0	11.8	16.1
145°	1.1	0.0	0.0	6.4	10.7
147.5°	1.1	0.0	0.0	1.1	5.4
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)