

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: P1056009

Luminaire Tested: S124R3DR-S350D830-X4F0-XX-UDD-FLL-W

Issue Date: 7/25/2025

Test Information

Test Method: LM-79-2019
Report Number: P1056009
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2503-402-7)
Test Lab: INNOVATION CENTER
Issue Date: 7/25/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S124R3DR-S350D830-X4F0-XX-UDD-FLL-W
Description: DEFINE 4, WHITE 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS
CORE LIGHT ENGINE
Light Source: 3000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

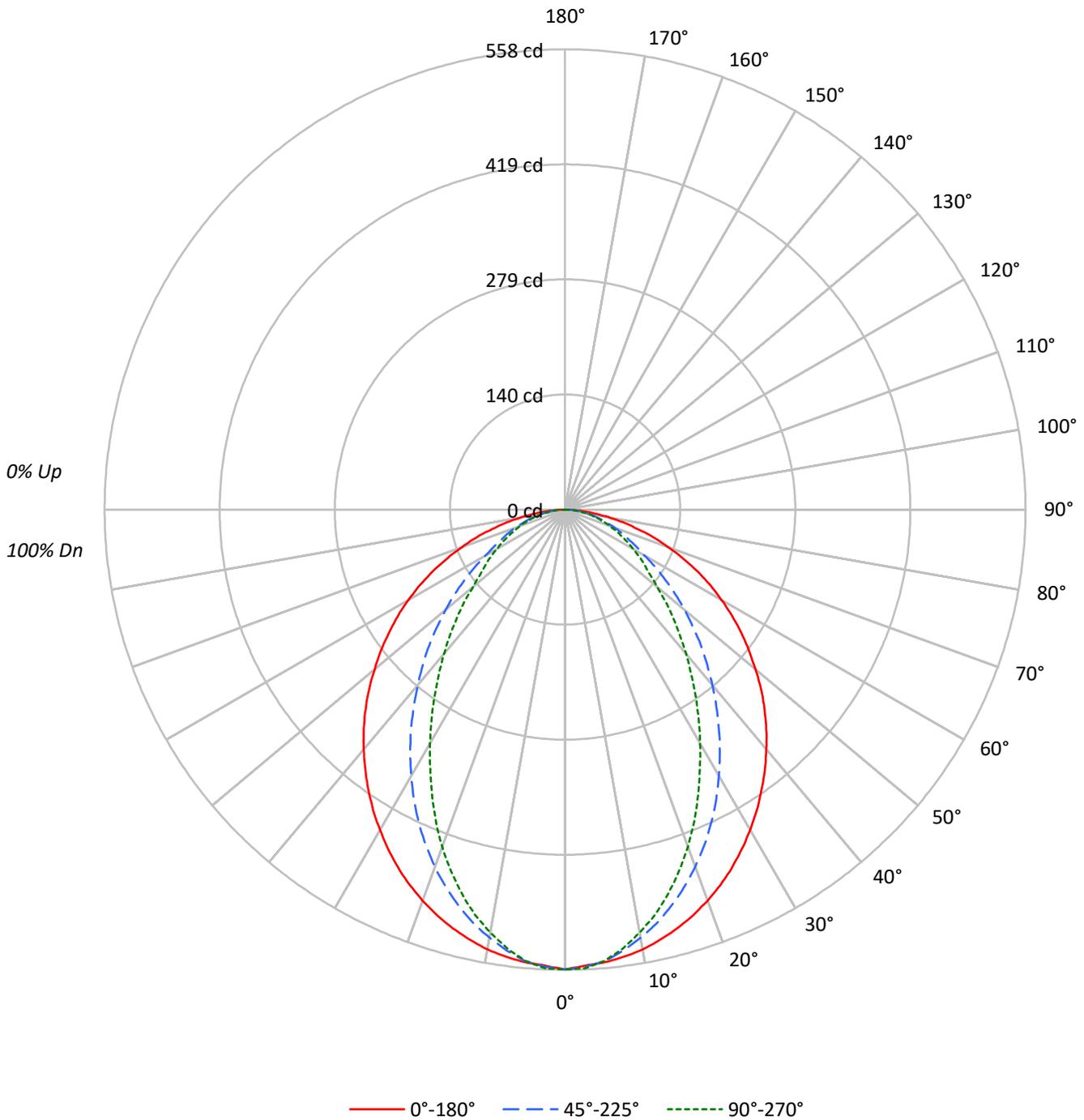
Lumens per Lamp: N/A
Luminaire Lumens: 1110.4 lumens
Efficiency: N/A
Efficacy: 88.1 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 0.95 / 1.12
Luminous Opening: Rectangular (W 0.31' x L: 3.9' x H: 0')
CIE Type: Direct

Input Watts (W): 12.6
Input Voltage (V): 120
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									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	50	30	10	50	30	10	50	30	10	0																
RCR																																														
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100																												
1	110	105	102	98	107	103	100	97	99	96	93	95	93	91	92	90	88	86																												
2	101	93	87	82	98	91	86	81	88	83	79	85	81	77	82	78	76	73																												
3	93	83	75	69	90	81	74	69	79	73	68	76	71	67	73	69	65	63																												
4	85	74	66	60	83	73	65	60	71	64	59	68	63	58	66	61	57	55																												
5	79	67	59	53	77	66	58	52	64	57	52	62	56	51	60	55	51	49																												
6	73	61	53	47	72	60	52	46	58	51	46	57	50	46	55	50	45	43																												
7	68	56	47	42	67	55	47	42	53	46	41	52	46	41	51	45	41	39																												
8	64	51	43	38	62	51	43	38	49	42	37	48	42	37	47	41	37	35																												
9	60	47	39	34	59	47	39	34	46	39	34	45	38	34	44	38	34	32																												
10	56	44	36	31	55	43	36	31	42	36	31	41	35	31	41	35	31	29																												

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	4929	4929	4929
5°	4890	4879	4875
10°	4861	4733	4674
15°	4810	4555	4416
20°	4748	4338	4096
25°	4671	4090	3722
30°	4578	3807	3342
35°	4481	3511	2976
40°	4380	3205	2633
45°	4272	2908	2313
50°	4142	2596	1997
55°	4015	2283	1814
60°	3874	1959	1683
65°	3699	1776	1571
70°	3436	1644	1484
75°	3112	1513	1401
80°	2714	1400	1314
85°	2080	1288	1207

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 4272 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	51.9	4.7
10°-20°	140.8	12.7
20°-30°	195.0	17.6
30°-40°	209.2	18.8
40°-50°	190.3	17.1
50°-60°	149.8	13.5
60°-70°	102.6	9.2
70°-80°	55.2	5.0
80°-90°	15.6	1.4
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	387.7	34.9
0°-40°	596.9	53.8
0°-60°	937.0	84.4
0°-90°	1110.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1110.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	558	558	558	558	558	
5°	551	557	550	547	549	52
15°	526	520	498	484	482	148
25°	479	459	419	389	382	220
35°	415	383	325	286	276	260
45°	342	298	233	192	185	263
55°	260	211	148	119	118	233
65°	177	126	85	76	75	174
75°	91	55	44	41	41	97
85°	20	14	13	12	12	25
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	557.5	557.5	557.5	557.5	557.5
2.5°	553.4	560.0	555.1	555.9	556.7
5°	551.0	557.1	549.7	546.9	549.3
7.5°	546.9	551.0	539.5	534.1	536.6
10°	541.5	542.4	527.2	519.4	520.6
12.5°	534.1	532.1	513.6	502.6	503.4
15°	525.5	519.8	497.6	484.1	482.5
17.5°	515.7	506.2	480.0	462.8	459.5
20°	504.6	491.9	461.1	439.0	435.3
22.5°	492.3	475.9	440.6	414.4	409.0
25°	478.8	459.1	419.3	388.9	381.5
27.5°	464.0	441.0	396.3	363.1	353.6
30°	448.4	422.1	372.9	337.2	327.4
32.5°	432.4	402.9	349.1	311.4	301.1
35°	415.2	382.8	325.3	285.9	275.7
37.5°	397.5	361.8	301.1	261.3	250.7
40°	379.5	340.9	277.7	236.7	228.1
42.5°	361.0	319.6	254.8	213.7	205.9
45°	341.7	298.3	232.6	192.4	185.0
47.5°	322.0	276.5	210.0	172.3	165.3
50°	301.1	254.8	188.7	152.6	145.2
52.5°	281.0	232.6	168.2	133.3	129.6
55°	260.5	210.9	148.1	119.4	117.7
57.5°	240.0	189.1	129.6	108.3	106.7
60°	219.1	167.8	110.8	96.8	95.2
62.5°	198.2	146.9	96.8	85.7	84.9
65°	176.8	126.4	84.9	75.5	75.1
67.5°	154.3	106.7	74.3	66.5	66.1
70°	132.9	87.0	63.6	57.4	57.4
72.5°	112.8	68.9	53.7	48.8	48.8
75°	91.1	55.4	44.3	40.6	41.0
77.5°	71.8	43.5	35.7	33.2	33.2
80°	53.3	32.4	27.5	25.4	25.8
82.5°	36.1	22.6	19.7	18.5	18.5
85°	20.5	13.9	12.7	11.9	11.9
87.5°	7.4	6.6	6.2	5.3	5.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)