

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: P1056007

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

Issue Date: 7/25/2025

Test Information

Test Method: LM-79-2019
Report Number: P1056007
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2503-402-8)
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-B
Description: DEFINE 4, BLACK 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS
CORE LIGHT ENGINE
Light Source: 3000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

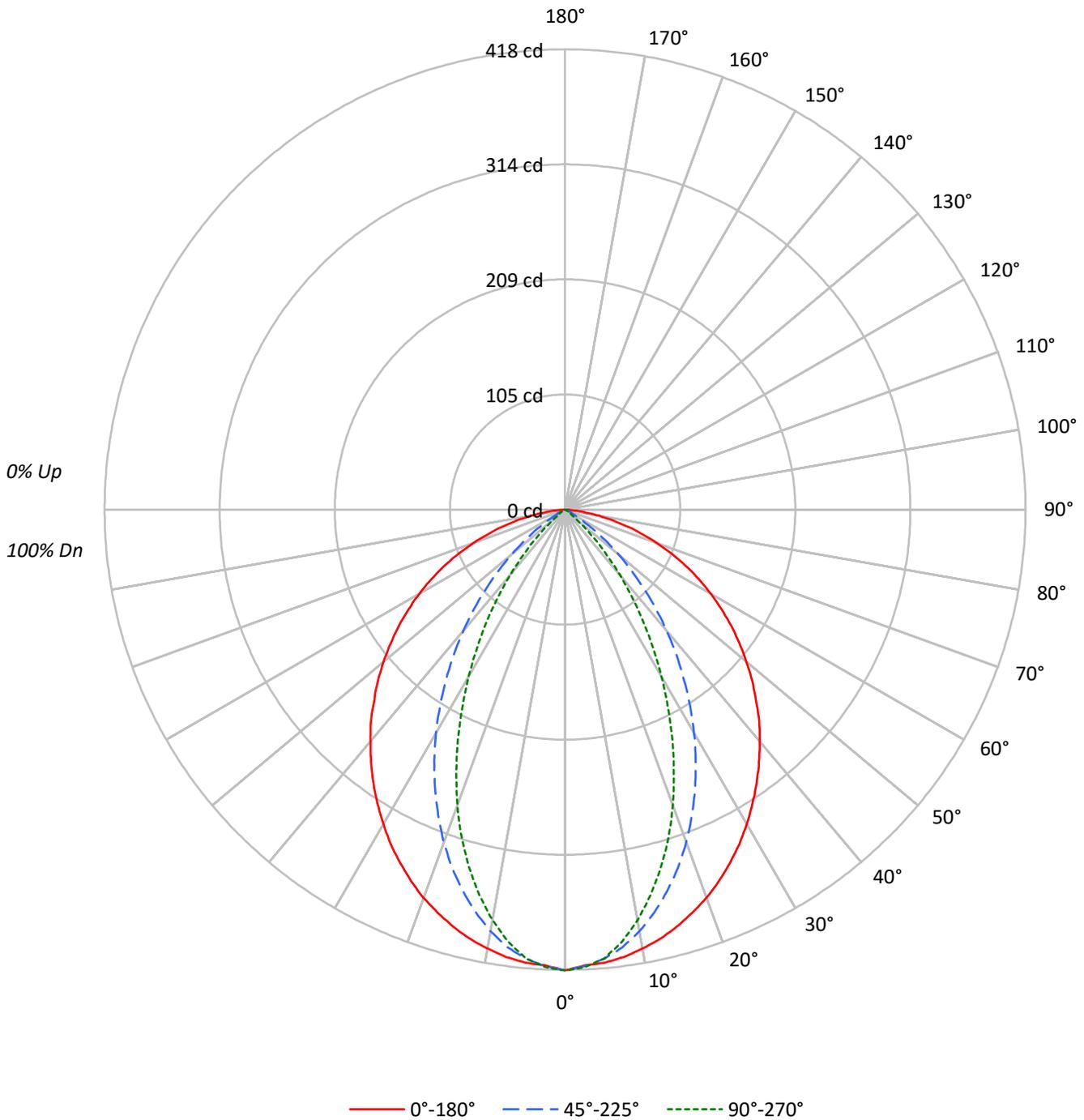
Lumens per Lamp: N/A
Luminaire Lumens: 584.8 lumens
Efficiency: N/A
Efficacy: 46.4 lumens/watt
Spacing Criteria (0/90/45): 1.18 / 0.81 / 0.97
Luminous Opening: Rectangular (W 0.31' x L: 3.9' x H: 0')
CIE Type: Direct

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	
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	0	
RCR																						
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100				
1	112	108	105	102	109	106	103	100	102	99	97	98	96	94	95	93	92	90				
2	104	98	93	88	102	96	91	87	93	89	85	90	86	83	87	84	82	80				
3	97	89	82	77	95	87	81	77	84	79	75	82	78	74	79	76	73	71				
4	90	81	74	68	88	80	73	68	77	72	67	75	70	66	73	69	65	64				
5	84	74	66	61	83	73	66	61	71	65	60	69	64	60	67	63	59	57				
6	79	68	60	55	77	67	60	55	65	59	54	64	58	54	62	57	54	52				
7	74	63	55	50	73	62	55	50	60	54	50	59	53	49	58	53	49	47				
8	70	58	51	46	68	57	50	46	56	50	45	55	49	45	54	49	45	43				
9	66	54	47	42	64	53	47	42	52	46	42	51	46	42	50	45	41	40				
10	62	50	43	39	61	50	43	39	49	43	39	48	42	39	47	42	38	37				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3700	3700	3700
5°	3666	3633	3630
10°	3635	3491	3400
15°	3590	3282	3079
20°	3532	3026	2690
25°	3453	2726	2246
30°	3367	2392	1785
35°	3273	2028	1329
40°	3173	1653	885
45°	3062	1262	488
50°	2957	864	135
55°	2839	469	88
60°	2698	145	51
65°	2523	94	25
70°	2280	41	10
75°	1961	14	0
80°	1482	0	0
85°	629	0	0

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 3062 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	38.6	6.6
10°-20°	101.3	17.3
20°-30°	131.0	22.4
30°-40°	125.2	21.4
40°-50°	93.6	16.0
50°-60°	55.7	9.5
60°-70°	28.3	4.8
70°-80°	9.8	1.7
80°-90°	1.3	0.2
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°	270.9	46.3
0°-40°	396.1	67.7
0°-60°	545.4	93.3
0°-90°	584.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	584.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	418	418	418	418	418	
5°	413	416	409	407	409	39
15°	392	384	359	342	336	111
25°	354	329	279	242	230	163
35°	303	261	188	140	123	190
45°	245	188	101	54	39	189
55°	184	114	30	7	6	164
65°	121	46	4	2	1	119
75°	57	6	0	0	0	61
85°	6	0	0	0	0	10
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	418.5	418.5	418.5	418.5	418.5
2.5°	414.4	419.3	415.2	415.6	416.0
5°	413.1	416.4	409.4	407.4	409.0
7.5°	409.8	411.1	400.8	395.5	395.9
10°	404.9	403.7	388.9	379.9	378.7
12.5°	399.2	395.1	374.6	361.4	358.6
15°	392.2	384.0	358.6	341.7	336.4
17.5°	384.0	372.1	340.9	318.8	312.2
20°	375.4	359.0	321.6	294.1	285.9
22.5°	365.1	344.2	300.7	268.3	258.0
25°	354.0	329.4	279.4	242.5	230.2
27.5°	342.6	313.4	256.8	216.2	201.8
30°	329.8	296.6	234.3	189.5	174.8
32.5°	316.7	279.4	210.9	164.9	148.5
35°	303.2	261.3	187.9	139.9	123.1
37.5°	289.2	243.3	165.7	116.1	98.9
40°	274.9	224.8	143.2	93.5	76.7
42.5°	260.9	206.4	121.8	72.2	56.6
45°	244.9	187.9	100.9	53.7	39.0
47.5°	230.6	169.8	80.8	36.5	23.0
50°	215.0	150.6	62.8	21.3	9.8
52.5°	199.4	132.5	45.9	9.4	7.4
55°	184.2	114.5	30.4	7.0	5.7
57.5°	168.2	96.4	16.4	5.3	4.1
60°	152.6	78.8	8.2	4.1	2.9
62.5°	136.6	61.9	6.6	2.5	1.6
65°	120.6	46.4	4.5	1.6	1.2
67.5°	104.6	31.6	2.9	0.8	0.4
70°	88.2	19.3	1.6	0.4	0.4
72.5°	72.6	9.8	0.8	0.4	0.4
75°	57.4	6.2	0.4	0.4	0.0
77.5°	42.7	3.3	0.4	0.4	0.0
80°	29.1	1.2	0.0	0.0	0.0
82.5°	16.8	0.4	0.0	0.0	0.0
85°	6.2	0.0	0.0	0.0	0.0
87.5°	0.0	0.0	0.0	0.0	0.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)