

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: P1056030

Luminaire Tested: S124R3DR-S350D940-X4F0-XX-UDD-FLL-W

Issue Date: 7/25/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1056030  
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-S350D940-X4F0-XX-UDD-FLL-W  
Description: DEFINE 4, WHITE 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS  
CORE LIGHT ENGINE  
Light Source: 4000K CCT, 90 CRI LEDS  
Ballast/Driver: -

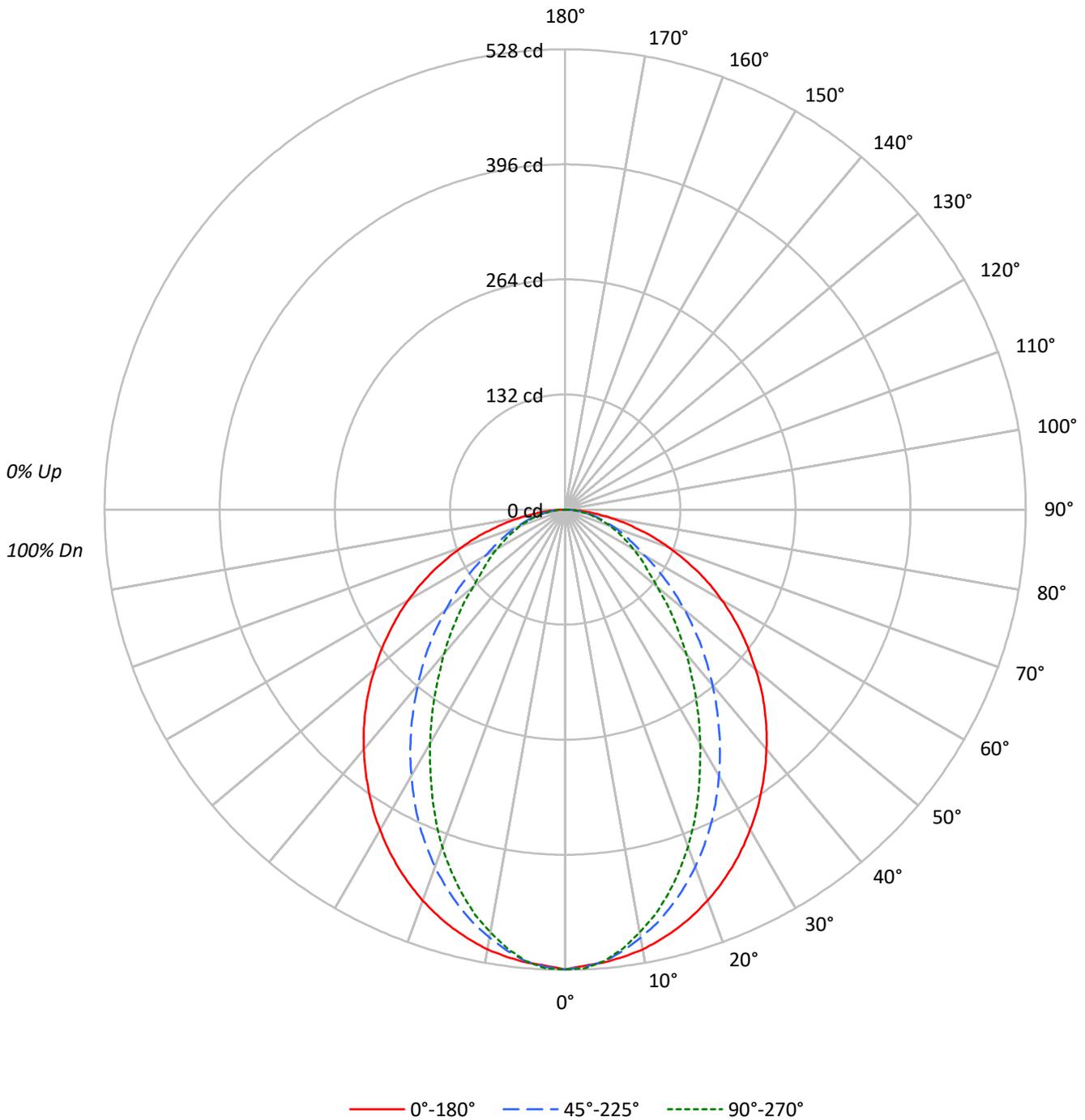
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1050.5 lumens  
Efficiency: N/A  
Efficacy: 83.4 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									
RC	80									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			100																
1	110	105	102	98	107	103	100	97	99	96	93	95	93	91	92	90	88	86			86																
2	101	93	87	82	98	91	86	81	88	83	79	85	81	77	82	78	76	73			73																
3	93	83	75	69	90	81	74	69	79	73	68	76	71	67	73	69	65	63			63																
4	85	74	66	60	83	73	65	60	71	64	59	68	63	58	66	61	57	55			55																
5	79	67	59	53	77	66	58	52	64	57	52	62	56	51	60	55	51	49			49																
6	73	61	53	47	72	60	52	46	58	51	46	57	50	46	55	50	45	43			43																
7	68	56	47	42	67	55	47	42	53	46	41	52	46	41	51	45	41	39			39																
8	64	51	43	38	62	51	43	38	49	42	37	48	42	37	47	41	37	35			35																
9	60	47	39	34	59	47	39	34	46	39	34	45	38	34	44	38	34	32			32																
10	56	44	36	31	55	43	36	31	42	36	31	41	35	31	41	35	31	29			29																

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	4664	4664	4664
5°	4627	4616	4612
10°	4599	4477	4422
15°	4551	4309	4178
20°	4492	4105	3875
25°	4418	3870	3522
30°	4331	3602	3162
35°	4240	3322	2815
40°	4143	3033	2491
45°	4042	2752	2188
50°	3919	2455	1890
55°	3800	2160	1717
60°	3666	1853	1591
65°	3500	1680	1485
70°	3252	1556	1404
75°	2945	1431	1325
80°	2571	1324	1247
85°	1968	1217	1146

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 4042 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	49.1	4.7
10°-20°	133.2	12.7
20°-30°	184.4	17.6
30°-40°	198.0	18.8
40°-50°	180.0	17.1
50°-60°	141.8	13.5
60°-70°	97.0	9.2
70°-80°	52.2	5.0
80°-90°	14.8	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°	366.8	34.9
0°-40°	564.7	53.8
0°-60°	886.5	84.4
0°-90°	1050.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1050.5	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	528	528	528	528	528	
5°	521	527	520	517	520	49
15°	497	492	471	458	456	140
25°	453	434	397	368	361	209
35°	393	362	308	270	261	246
45°	323	282	220	182	175	249
55°	246	200	140	113	111	220
65°	167	120	80	71	71	165
75°	86	52	42	38	39	92
85°	19	13	12	11	11	23
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	527.5	527.5	527.5	527.5	527.5
2.5°	523.6	529.8	525.1	525.9	526.7
5°	521.3	527.1	520.1	517.4	519.7
7.5°	517.4	521.3	510.4	505.3	507.7
10°	512.3	513.1	498.7	491.4	492.5
12.5°	505.3	503.4	485.9	475.5	476.2
15°	497.2	491.8	470.8	458.0	456.4
17.5°	487.9	478.9	454.1	437.8	434.7
20°	477.4	465.4	436.3	415.3	411.8
22.5°	465.8	450.2	416.8	392.0	387.0
25°	452.9	434.3	396.7	367.9	361.0
27.5°	439.0	417.2	374.9	343.5	334.6
30°	424.2	399.4	352.8	319.0	309.7
32.5°	409.1	381.1	330.3	294.6	284.9
35°	392.8	362.1	307.8	270.5	260.8
37.5°	376.1	342.3	284.9	247.2	237.1
40°	359.0	322.5	262.8	223.9	215.8
42.5°	341.6	302.3	241.0	202.2	194.8
45°	323.3	282.2	220.1	182.0	175.0
47.5°	304.7	261.6	198.7	163.0	156.4
50°	284.9	241.0	178.5	144.4	137.4
52.5°	265.9	220.1	159.1	126.1	122.6
55°	246.5	199.5	140.1	112.9	111.4
57.5°	227.1	178.9	122.6	102.5	100.9
60°	207.3	158.7	104.8	91.6	90.0
62.5°	187.5	138.9	91.6	81.1	80.3
65°	167.3	119.5	80.3	71.4	71.0
67.5°	145.9	100.9	70.3	62.9	62.5
70°	125.8	82.3	60.2	54.3	54.3
72.5°	106.7	65.2	50.8	46.2	46.2
75°	86.2	52.4	41.9	38.4	38.8
77.5°	67.9	41.1	33.8	31.4	31.4
80°	50.5	30.7	26.0	24.1	24.5
82.5°	34.2	21.3	18.6	17.5	17.5
85°	19.4	13.2	12.0	11.3	11.3
87.5°	7.0	6.2	5.8	5.0	5.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)