

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: P1055626

Luminaire Tested: S123R3DR-S340D950-X4F0-XX-UDD-FLL-B

Issue Date: 7/25/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1055626  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2503-402-5)  
Test Lab: INNOVATION CENTER  
Issue Date: 7/25/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S123R3DR-S340D950-X4F0-XX-UDD-FLL-B  
Description: DEFINE 3, BLACK 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS  
CORE LIGHT ENGINE  
Light Source: 5000K CCT, 90 CRI LEDS  
Ballast/Driver: -

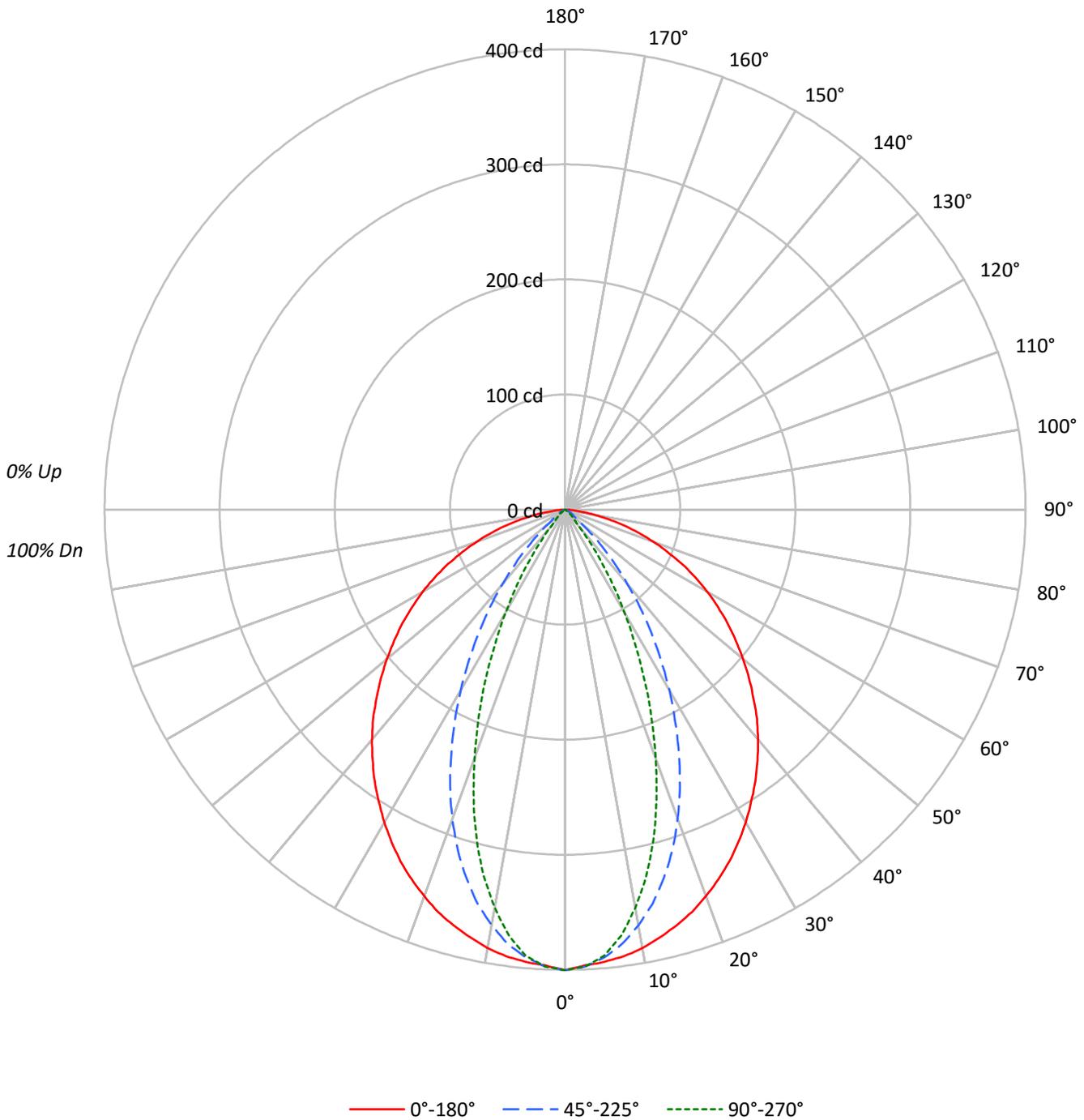
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 468.5 lumens  
Efficiency: N/A  
Efficacy: 37.2 lumens/watt  
Spacing Criteria (0/90/45): 1.17 / 0.7 / 0.86  
Luminous Opening: Rectangular (W 0.23' 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	103	109	106	104	101	102	100	98	98	97	95	95	93	92	90				
2	105	99	94	89	102	97	92	88	93	90	86	90	87	84	87	85	83	81				
3	98	90	84	79	96	88	83	78	86	81	77	83	79	76	81	77	74	73				
4	92	82	75	70	90	81	75	70	79	73	69	77	72	68	75	71	67	65				
5	86	76	69	63	84	75	68	63	73	67	62	71	66	62	69	65	61	59				
6	81	70	63	58	79	69	62	57	67	61	57	66	61	56	64	60	56	54				
7	76	65	58	53	74	64	57	52	63	57	52	61	56	52	60	55	52	50				
8	71	60	53	48	70	60	53	48	58	52	48	57	52	48	56	51	48	46				
9	68	56	49	45	66	56	49	45	55	49	45	54	48	44	53	48	44	43				
10	64	53	46	42	63	52	46	42	51	46	41	51	45	41	50	45	41	40				

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

	0°	45°	90°
0°	4826	4826	4826
5°	4774	4728	4714
10°	4738	4489	4301
15°	4669	4136	3706
20°	4587	3671	2951
25°	4491	3110	2176
30°	4370	2520	1428
35°	4242	1919	783
40°	4105	1327	268
45°	3944	772	155
50°	3785	304	94
55°	3622	191	44
60°	3434	121	19
65°	3198	60	11
70°	2869	28	14
75°	2436	19	19
80°	1819	28	0
85°	692	0	0

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 3944 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	36.7	7.8
10°-20°	93.1	19.9
20°-30°	111.1	23.7
30°-40°	94.2	20.1
40°-50°	64.1	13.7
50°-60°	39.7	8.5
60°-70°	20.1	4.3
70°-80°	8.2	1.7
80°-90°	1.3	0.3
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°	240.9	51.4
0°-40°	335.2	71.5
0°-60°	438.9	93.7
0°-90°	468.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	468.5	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	400	400	400	400	400	
5°	394	398	391	388	390	37
15°	374	365	331	305	297	105
25°	338	306	234	181	164	155
35°	288	231	130	70	53	180
45°	231	152	45	11	9	179
55°	172	76	9	3	2	154
65°	112	19	2	0	0	111
75°	52	3	0	0	0	56
85°	5	0	0	0	0	9
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	400.3	400.3	400.3	400.3	400.3
2.5°	396.6	401.9	397.4	397.0	397.4
5°	394.5	398.2	390.7	387.8	389.5
7.5°	391.6	393.2	380.8	373.3	373.3
10°	387.0	385.8	366.7	354.2	351.3
12.5°	380.8	375.8	350.9	331.4	326.0
15°	374.1	364.6	331.4	305.2	296.9
17.5°	366.7	352.1	310.2	276.1	264.1
20°	357.5	338.0	286.1	244.6	230.0
22.5°	348.0	322.6	260.8	212.2	196.0
25°	337.6	306.0	233.8	180.6	163.6
27.5°	326.0	288.6	207.2	150.3	131.6
30°	313.9	270.3	181.0	121.2	102.6
32.5°	301.0	251.2	154.9	94.7	77.2
35°	288.2	231.3	130.4	70.2	53.2
37.5°	274.5	211.4	106.7	48.6	33.6
40°	260.8	191.8	84.3	30.7	17.0
42.5°	246.7	171.5	63.9	15.4	11.6
45°	231.3	151.6	45.3	11.2	9.1
47.5°	216.8	132.5	29.9	9.1	7.1
50°	201.8	113.4	16.2	6.6	5.0
52.5°	186.9	95.1	11.6	5.0	3.3
55°	172.3	76.4	9.1	3.3	2.1
57.5°	157.4	60.2	7.1	2.1	1.2
60°	142.4	44.4	5.0	1.2	0.8
62.5°	127.5	30.7	3.3	0.8	0.4
65°	112.1	18.7	2.1	0.4	0.4
67.5°	96.3	12.9	1.2	0.4	0.4
70°	81.4	9.1	0.8	0.4	0.4
72.5°	66.4	5.8	0.4	0.4	0.0
75°	52.3	3.3	0.4	0.4	0.4
77.5°	38.6	1.2	0.4	0.4	0.0
80°	26.2	0.4	0.4	0.4	0.0
82.5°	14.5	0.0	0.4	0.4	0.0
85°	5.0	0.0	0.0	0.4	0.0
87.5°	0.0	0.0	0.0	0.4	0.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)