

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: P1059229

Luminaire Tested: S123RDR-S340D940-X4F0-XX-UDD-BVL-B

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1059229  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2406-143-30)  
Test Lab: INNOVATION CENTER  
Issue Date: 8/7/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S123RDR-S340D940-X4F0-XX-UDD-BVL-B  
Description: DEFINE 3 BLACK REGRESSED DIRECT RECESSED HOUSING WITH BLACK STRAIGHT BLADE LOUVER WITH DIFFUSER  
CORE LIGHT ENGINE  
Light Source: 4000K CCT, 90 CRI LEDS  
Ballast/Driver: -

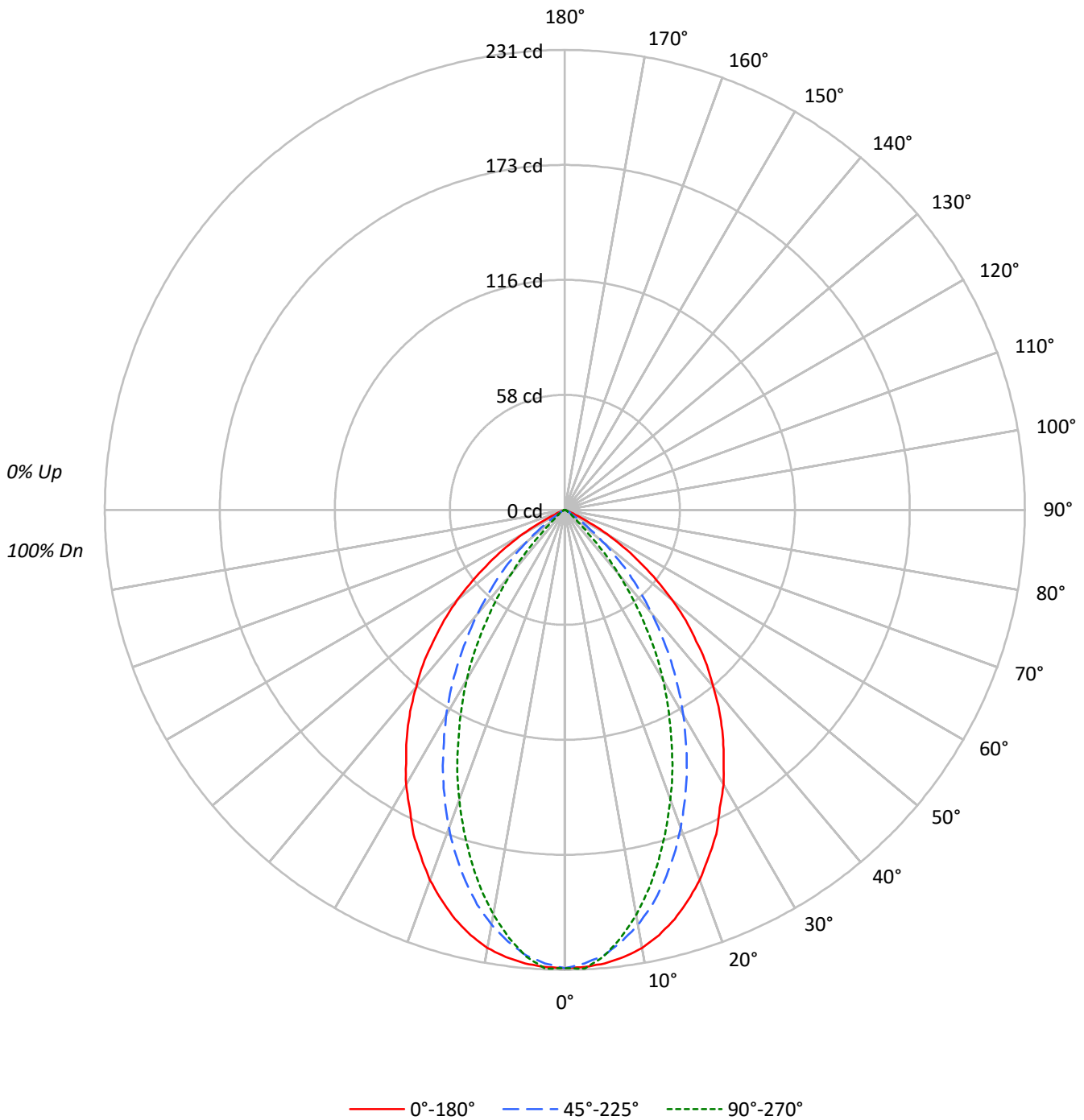
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 262.7 lumens  
Efficiency: N/A  
Efficacy: 21.0 lumens/watt  
Spacing Criteria (0/90/45): 1.06 / 0.81 / 0.94  
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 12.5  
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	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	113	110	107	104	110	107	105	103	103	101	100	100	98	97	96	95	94	92
2	106	101	96	92	104	99	95	91	96	92	89	93	90	87	90	87	85	84
3	100	92	87	82	98	91	86	82	88	84	80	86	82	79	83	80	78	76
4	94	85	79	74	92	84	78	74	82	77	73	80	75	72	78	74	71	69
5	88	79	72	67	86	78	71	67	76	70	66	74	69	65	72	68	65	63
6	83	73	66	61	81	72	66	61	70	65	60	69	64	60	67	63	60	58
7	78	68	61	56	77	67	60	56	66	60	56	64	59	55	63	58	55	53
8	74	63	56	52	72	62	56	51	61	55	51	60	55	51	59	54	51	49
9	70	59	52	48	68	58	52	48	57	52	47	56	51	47	55	51	47	46
10	66	55	49	44	65	55	48	44	54	48	44	53	48	44	52	47	44	42

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

	0°	45°	90°
0°	2703	2703	2703
5°	2696	2647	2652
10°	2665	2523	2462
15°	2587	2347	2213
20°	2473	2126	1936
25°	2330	1877	1638
30°	2161	1614	1337
35°	1983	1333	993
40°	1778	1045	636
45°	1551	764	264
50°	1286	453	102
55°	948	190	76
60°	575	70	45
65°	156	42	19
70°	0	14	14
75°	0	0	18
80°	0	0	0
85°	0	0	0

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 1551 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	21.2	8.1
10°-20°	54.7	20.8
20°-30°	68.2	25.9
30°-40°	60.9	23.2
40°-50°	38.5	14.6
50°-60°	16.1	6.1
60°-70°	3.0	1.2
70°-80°	0.1	0.0
80°-90°	0.0	0.0
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°	144.0	54.8
0°-40°	205.0	78.0
0°-60°	259.5	98.8
0°-90°	262.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	262.7	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	230	230	230	230	230	
5°	229	228	225	225	225	22
15°	213	208	193	185	182	60
25°	180	165	145	132	126	82
35°	138	118	93	76	69	86
45°	93	73	46	24	16	72
55°	46	32	9	4	4	41
65°	6	4	2	1	1	8
75°	0	0	0	0	0	0
85°	0	0	0	0	0	0
90°	0	0	0	0	0	0



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	230.2	230.2	230.2	230.2	230.2
2.5°	229.8	230.2	228.0	230.2	230.6
5°	228.7	228.3	224.6	225.4	225.0
7.5°	226.5	225.4	218.7	217.2	216.5
10°	223.5	220.5	211.6	207.9	206.5
12.5°	218.7	214.6	203.1	197.2	195.0
15°	212.8	207.6	193.1	185.0	182.0
17.5°	205.7	198.3	182.0	173.1	168.7
20°	197.9	187.6	170.1	159.4	154.9
22.5°	188.7	177.2	157.5	146.0	141.2
25°	179.8	165.3	144.9	132.3	126.4
27.5°	168.7	153.5	131.6	118.6	112.3
30°	159.4	142.0	119.0	104.5	98.6
32.5°	148.3	130.1	106.0	90.1	84.5
35°	138.3	118.2	93.0	76.4	69.3
37.5°	127.5	106.8	80.1	62.6	56.0
40°	116.0	95.3	68.2	48.9	41.5
42.5°	105.6	83.8	56.3	36.3	28.9
45°	93.4	72.6	46.0	24.5	15.9
47.5°	82.3	62.3	34.8	13.7	8.5
50°	70.4	51.5	24.8	7.0	5.6
52.5°	58.2	41.1	16.3	4.8	4.4
55°	46.3	31.9	9.3	3.7	3.7
57.5°	34.8	23.0	4.8	3.0	2.6
60°	24.5	15.2	3.0	2.2	1.9
62.5°	14.1	8.9	2.2	1.5	1.5
65°	5.6	4.1	1.5	0.7	0.7
67.5°	0.4	1.1	0.7	0.4	0.4
70°	0.0	0.0	0.4	0.4	0.4
72.5°	0.0	0.0	0.4	0.4	0.4
75°	0.0	0.0	0.0	0.0	0.4
77.5°	0.0	0.0	0.0	0.0	0.0
80°	0.0	0.0	0.0	0.0	0.0
82.5°	0.0	0.0	0.0	0.0	0.0
85°	0.0	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)