

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: P1059231

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

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1059231  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-66)  
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-W  
Description: DEFINE 3 WHITE REGRESSED DIRECT RECESSED HOUSING WITH BLACK STRAIGHT BLADE  
LOUVER WITH DIFFUSER  
CORE LIGHT ENGINE  
Light Source: 4000K CCT, 90 CRI LEDS  
Ballast/Driver: -

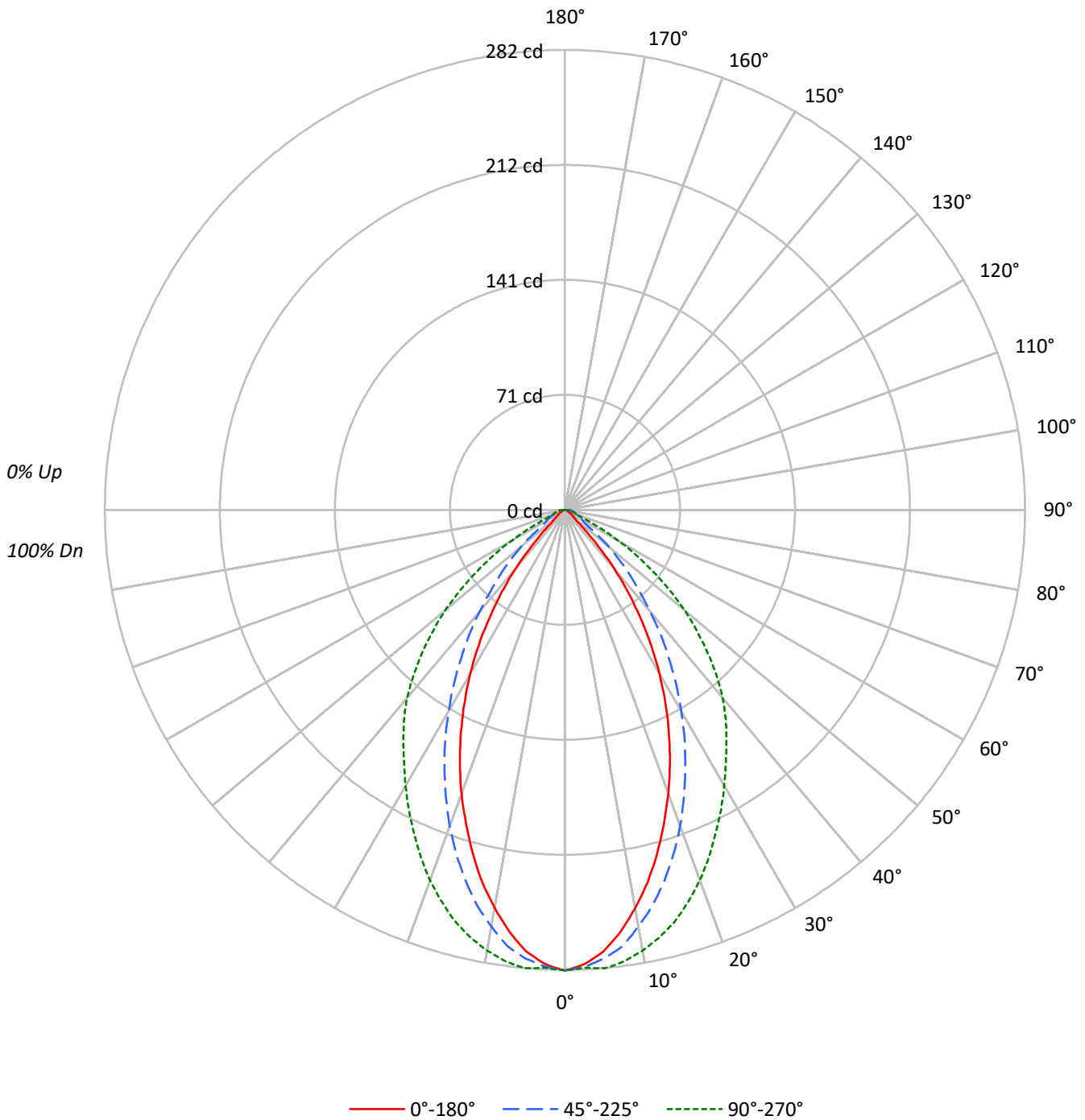
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 339.2 lumens  
Efficiency: N/A  
Efficacy: 27.1 lumens/watt  
Spacing Criteria (0/90/45): 0.79 / 1.06 / 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	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	101	102	100	98	98	96	95	95	93	92	90				
2	105	99	94	90	102	97	92	88	94	90	86	91	87	85	88	85	83	81				
3	98	90	84	79	96	89	83	79	86	81	77	83	79	76	81	78	75	73				
4	92	83	76	71	90	81	75	70	79	74	70	77	72	69	75	71	68	66				
5	86	76	69	64	84	75	69	64	73	67	63	71	66	62	70	65	62	60				
6	81	70	63	58	79	69	63	58	68	62	57	66	61	57	65	60	57	55				
7	76	65	58	53	75	65	58	53	63	57	53	62	56	52	61	56	52	50				
8	72	61	54	49	70	60	53	49	59	53	49	58	52	48	57	52	48	47				
9	68	57	50	45	67	56	50	45	55	49	45	54	49	45	53	48	45	43				
10	64	53	46	42	63	53	46	42	52	46	42	51	45	42	50	45	42	40				

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

	0°	45°	90°
0°	3317	3317	3317
5°	3204	3256	3326
10°	2957	3094	3272
15°	2654	2862	3173
20°	2316	2579	3020
25°	1953	2261	2834
30°	1570	1934	2648
35°	1150	1591	2474
40°	717	1240	2305
45°	271	925	2053
50°	130	638	1750
55°	98	350	1353
60°	70	296	890
65°	53	258	372
70°	51	244	244
75°	68	254	254
80°	101	304	277
85°	202	498	404

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 2053 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	25.9	7.6
10°-20°	66.5	19.6
20°-30°	82.3	24.3
30°-40°	73.8	21.8
40°-50°	48.4	14.3
50°-60°	24.2	7.1
60°-70°	9.5	2.8
70°-80°	5.3	1.6
80°-90°	3.3	1.0
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°	174.8	51.5
0°-40°	248.6	73.3
0°-60°	321.2	94.7
0°-90°	339.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	339.2	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	282	282	282	282	282	
5°	272	276	276	279	282	25
15°	218	227	235	251	261	61
25°	151	160	174	199	219	69
35°	80	91	111	144	173	50
45°	16	26	56	95	124	16
55°	5	6	17	47	66	4
65°	2	6	9	12	13	2
75°	2	6	6	6	6	2
85°	2	4	4	4	3	1
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	282.5	282.5	282.5	282.5	282.5
2.5°	278.8	282.9	280.3	280.7	281.0
5°	271.8	276.2	276.2	279.2	282.2
7.5°	261.0	266.2	269.9	275.1	279.2
10°	248.0	254.3	259.5	268.8	274.4
12.5°	233.9	241.7	248.4	260.6	268.4
15°	218.3	227.2	235.4	251.0	261.0
17.5°	201.6	210.5	221.3	239.5	251.7
20°	185.3	194.2	206.4	226.8	241.7
22.5°	168.2	177.5	190.5	213.1	230.6
25°	150.7	160.0	174.5	199.4	218.7
27.5°	133.3	142.6	158.9	186.0	207.2
30°	115.8	125.1	142.6	171.5	195.3
32.5°	98.4	108.4	126.6	158.2	183.4
35°	80.2	91.0	111.0	144.4	172.6
37.5°	63.5	73.5	96.2	132.5	161.9
40°	46.8	57.5	80.9	121.0	150.4
42.5°	30.4	42.0	67.2	108.4	137.4
45°	16.3	26.4	55.7	95.4	123.6
47.5°	8.9	14.5	44.9	81.7	109.5
50°	7.1	8.2	34.9	69.8	95.8
52.5°	5.9	6.7	24.9	58.7	80.6
55°	4.8	5.9	17.1	46.8	66.1
57.5°	4.1	5.2	13.4	36.4	51.6
60°	3.0	4.5	12.6	26.7	37.9
62.5°	2.2	4.8	11.1	18.6	24.9
65°	1.9	5.6	9.3	12.3	13.4
67.5°	1.5	5.9	8.2	7.8	7.8
70°	1.5	5.6	7.1	6.7	7.1
72.5°	1.5	5.9	6.3	5.9	6.3
75°	1.5	5.6	5.6	5.6	5.6
77.5°	1.5	5.2	5.2	4.8	4.8
80°	1.5	4.5	4.5	4.5	4.1
82.5°	1.5	4.1	4.1	4.1	3.3
85°	1.5	3.7	3.7	3.7	3.0
87.5°	1.1	3.3	3.7	3.3	2.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)