

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: P1059194

Luminaire Tested: S123RDR-S340D850-X4F0-XX-UDD-BVL-S

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1059194  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-69)  
Test Lab: INNOVATION CENTER  
Issue Date: 8/7/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S123RDR-S340D850-X4F0-XX-UDD-BVL-S  
Description: DEFINE 3 SILVER REGRESSED DIRECT RECESSED HOUSING WITH BLACK STRAIGHT BLADE LOUVER WITH DIFFUSER  
CORE LIGHT ENGINE  
Light Source: 5000K CCT, 80 CRI LEDS  
Ballast/Driver: -

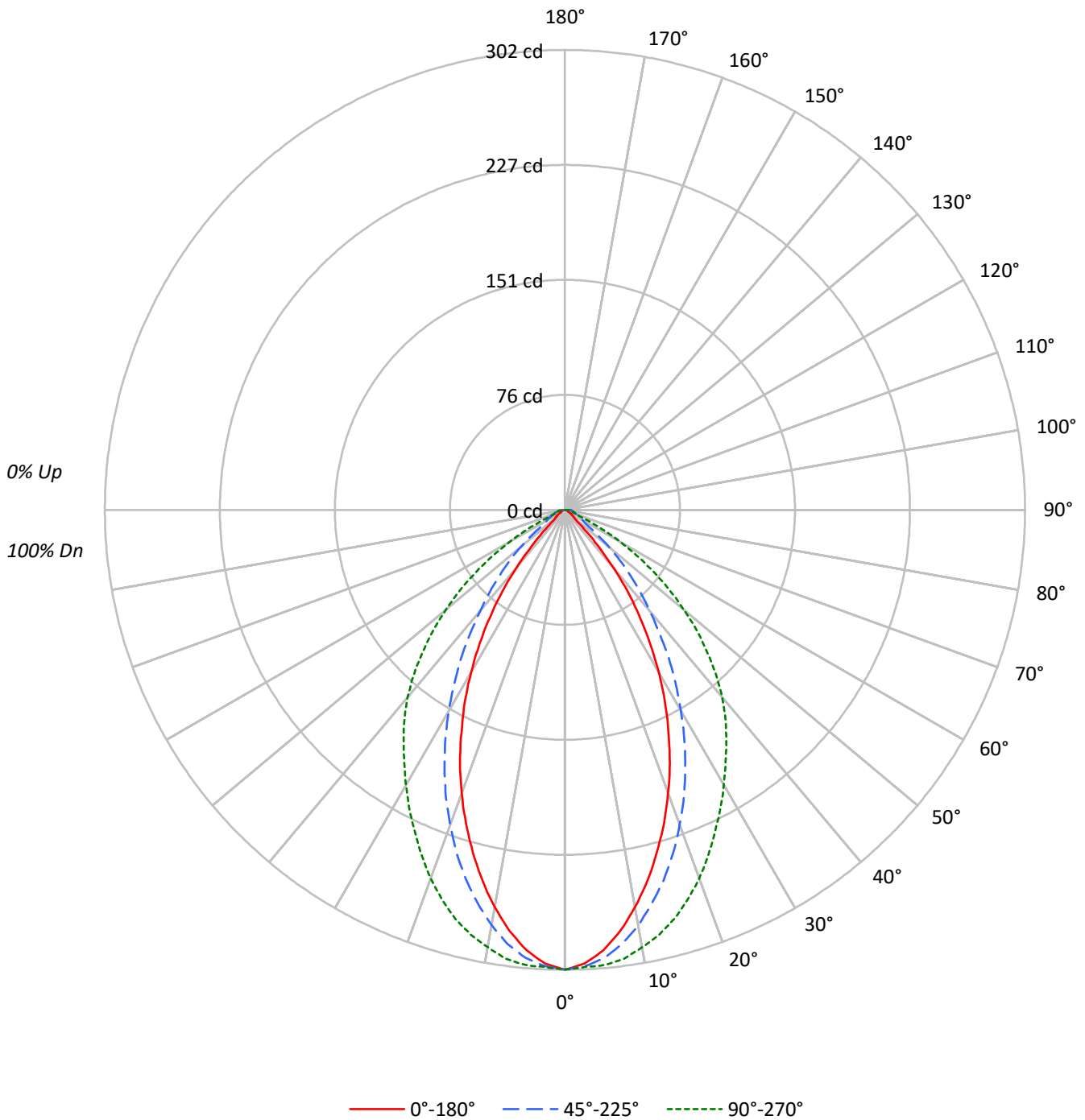
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 362.6 lumens  
Efficiency: N/A  
Efficacy: 29.0 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	89	102	97	92	88	94	90	86	90	87	85	88	85	83	81				
3	98	90	84	79	96	89	83	78	86	81	77	83	79	76	81	78	75	73				
4	92	83	76	71	90	81	75	70	79	74	69	77	72	69	75	71	68	66				
5	86	76	69	64	84	75	68	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	64	58	53	63	57	53	62	56	52	61	56	52	50				
8	72	61	54	49	70	60	53	49	59	53	48	58	52	48	57	52	48	46				
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	41	40				

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

	0°	45°	90°
0°	3545	3545	3545
5°	3422	3482	3536
10°	3160	3303	3478
15°	2834	3053	3378
20°	2474	2752	3219
25°	2081	2422	3020
30°	1670	2065	2828
35°	1224	1700	2646
40°	757	1323	2462
45°	291	996	2192
50°	142	683	1856
55°	113	379	1456
60°	75	315	975
65°	64	283	436
70°	62	254	254
75°	82	272	250
80°	122	345	284
85°	189	566	377

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 2192 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	27.7	7.6
10°-20°	70.9	19.5
20°-30°	87.9	24.3
30°-40°	78.8	21.7
40°-50°	51.8	14.3
50°-60°	26.0	7.2
60°-70°	10.2	2.8
70°-80°	5.7	1.6
80°-90°	3.6	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°	186.5	51.4
0°-40°	265.3	73.2
0°-60°	343.0	94.6
0°-90°	362.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	362.6	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	302	302	302	302	302	
5°	290	295	295	297	300	27
15°	233	240	251	268	278	65
25°	161	171	187	213	233	73
35°	85	97	119	155	185	53
45°	18	29	60	101	132	17
55°	6	6	18	50	71	5
65°	2	6	10	13	16	2
75°	2	6	6	6	6	2
85°	1	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°	301.9	301.9	301.9	301.9	301.9
2.5°	298.2	302.3	300.0	300.0	300.5
5°	290.3	295.0	295.4	297.3	300.0
7.5°	278.8	284.8	287.6	293.1	297.3
10°	265.0	271.4	277.0	286.7	291.7
12.5°	249.7	256.2	264.5	277.9	285.7
15°	233.1	240.5	251.1	268.2	277.9
17.5°	216.0	223.4	236.3	255.7	268.2
20°	198.0	206.3	220.2	242.3	257.6
22.5°	180.0	189.3	204.0	228.0	245.6
25°	160.6	170.8	186.9	213.3	233.1
27.5°	142.2	152.8	169.9	198.5	221.1
30°	123.2	133.9	152.3	183.3	208.6
32.5°	103.9	115.9	135.2	168.9	196.2
35°	85.4	96.9	118.6	155.1	184.6
37.5°	67.4	78.9	101.6	141.7	173.1
40°	49.4	61.4	86.3	128.8	160.6
42.5°	32.3	44.8	72.9	115.9	146.8
45°	17.5	29.1	60.0	101.1	132.0
47.5°	9.7	15.7	48.5	87.2	117.7
50°	7.8	8.8	37.4	74.3	101.6
52.5°	6.5	7.4	26.8	61.9	86.8
55°	5.5	6.5	18.5	49.9	71.1
57.5°	4.6	5.5	14.8	38.3	55.9
60°	3.2	5.5	13.4	28.2	41.5
62.5°	2.8	5.5	11.5	19.4	27.7
65°	2.3	6.5	10.2	12.9	15.7
67.5°	1.8	6.5	8.8	8.3	8.3
70°	1.8	6.5	7.4	6.9	7.4
72.5°	1.8	6.9	6.9	6.5	6.5
75°	1.8	6.0	6.0	5.5	5.5
77.5°	1.8	5.5	5.5	5.1	5.1
80°	1.8	5.1	5.1	4.6	4.2
82.5°	1.8	4.6	4.6	4.2	3.7
85°	1.4	4.2	4.2	4.2	2.8
87.5°	1.4	3.7	4.2	3.7	2.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)