

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: P1059190

Luminaire Tested: S123RDR-S340D840-X4F0-XX-UDD-WVL-B

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1059190  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2406-143-28)  
Test Lab: INNOVATION CENTER  
Issue Date: 8/7/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S123RDR-S340D840-X4F0-XX-UDD-WVL-B  
Description: DEFINE 3 BLACK REGRESSED DIRECT RECESSED HOUSING WITH WHITE STRAIGHT BLADE LOUVER WITH DIFFUSER  
CORE LIGHT ENGINE  
Light Source: 4000K CCT, 80 CRI LEDS  
Ballast/Driver: -

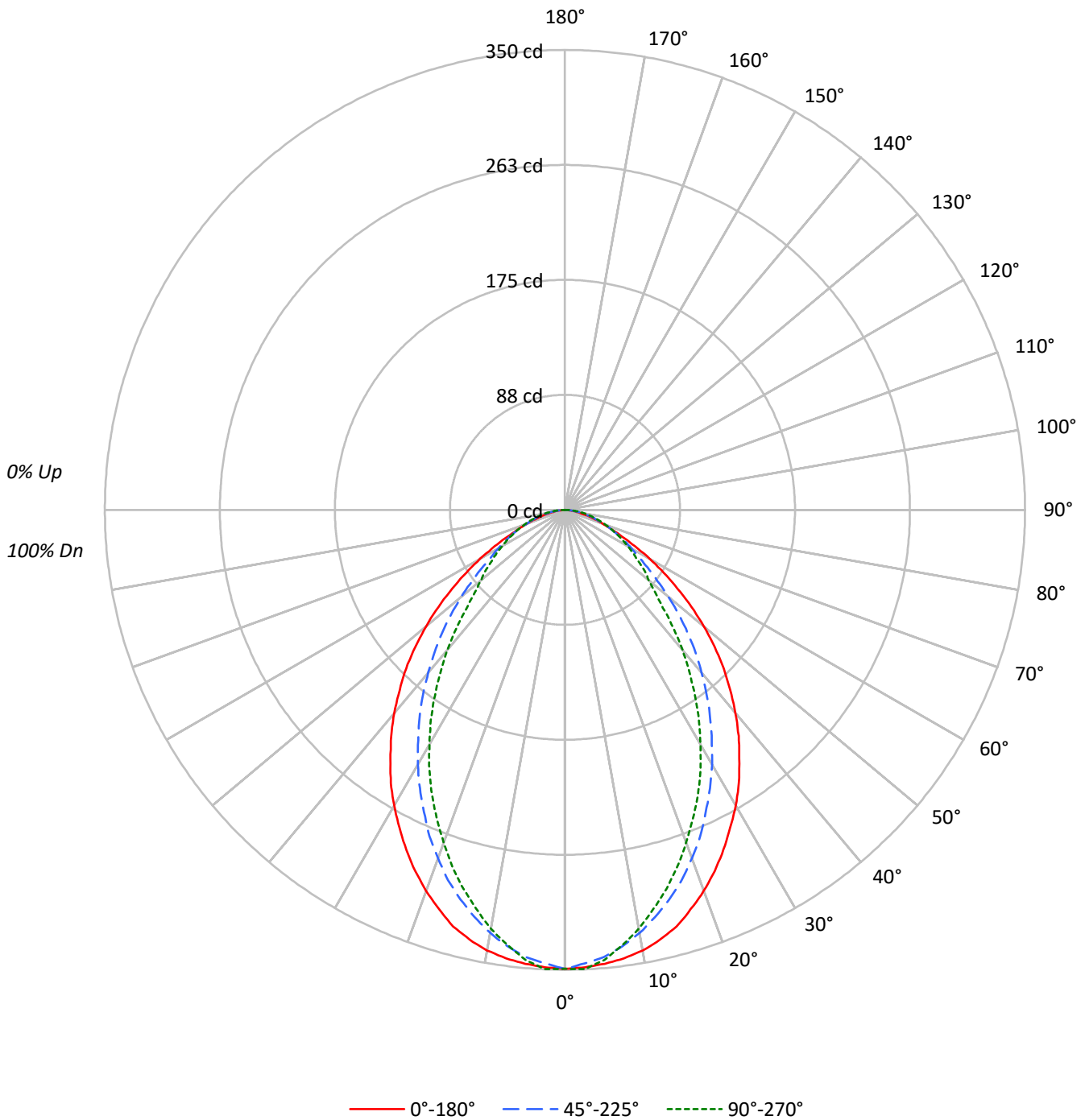
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 610.9 lumens  
Efficiency: N/A  
Efficacy: 48.9 lumens/watt  
Spacing Criteria (0/90/45): 1.12 / 0.95 / 1.09  
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	111	107	103	100	108	104	101	98	100	98	95	96	94	92	93	91	89	88				
2	102	95	89	84	100	93	88	83	90	85	81	87	83	80	84	81	78	76				
3	94	85	78	73	92	84	77	72	81	75	71	78	73	69	76	72	68	66				
4	87	77	69	63	85	76	68	63	73	67	62	71	66	61	69	64	60	58				
5	81	70	62	56	79	69	61	56	67	60	55	65	59	54	63	58	54	52				
6	76	64	56	50	74	63	55	50	61	54	49	59	53	49	58	53	48	47				
7	71	58	50	45	69	58	50	45	56	49	44	55	49	44	53	48	44	42				
8	66	54	46	41	65	53	46	41	52	45	40	51	45	40	50	44	40	38				
9	62	50	42	37	61	49	42	37	48	41	37	47	41	37	46	41	37	35				
10	58	46	39	34	57	46	39	34	45	38	34	44	38	34	43	38	34	32				

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

	0°	45°	90°
0°	4102	4102	4102
5°	4088	4028	4052
10°	4060	3899	3860
15°	3991	3731	3629
20°	3856	3525	3368
25°	3699	3286	3100
30°	3524	3035	2795
35°	3316	2762	2473
40°	3095	2477	2131
45°	2838	2189	1750
50°	2516	1880	1518
55°	2139	1572	1392
60°	1745	1372	1292
65°	1331	1214	1200
70°	1037	1081	1123
75°	839	971	1048
80°	622	798	967
85°	337	512	849

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 2838 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	32.4	5.3
10°-20°	87.2	14.3
20°-30°	118.6	19.4
30°-40°	122.9	20.1
40°-50°	103.7	17.0
50°-60°	73.6	12.0
60°-70°	45.0	7.4
70°-80°	22.4	3.7
80°-90°	5.1	0.8
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°	238.2	39.0
0°-40°	361.2	59.1
0°-60°	538.5	88.1
0°-90°	610.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	610.9	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	349	349	349	349	349	
5°	347	347	342	344	344	33
15°	328	322	307	301	298	92
25°	286	273	254	244	239	131
35°	231	214	193	179	172	145
45°	171	153	132	114	105	131
55°	104	94	77	70	68	94
65°	48	46	44	44	43	49
75°	18	20	21	22	23	20
85°	2	3	4	6	6	4
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	349.3	349.3	349.3	349.3	349.3
2.5°	348.4	348.9	345.5	349.3	349.7
5°	346.8	346.8	341.7	343.8	343.8
7.5°	344.2	343.4	335.0	335.0	334.2
10°	340.5	337.9	327.0	324.9	323.7
12.5°	335.0	330.8	317.4	313.6	311.1
15°	328.3	322.0	306.9	301.4	298.5
17.5°	318.6	312.3	295.5	288.0	284.6
20°	308.6	299.3	282.1	274.5	269.5
22.5°	297.6	285.9	269.1	259.9	254.4
25°	285.5	272.9	253.6	244.3	239.3
27.5°	272.5	258.6	238.9	228.4	223.3
30°	259.9	243.9	223.8	212.0	206.1
32.5°	246.4	228.4	207.8	195.6	189.7
35°	231.3	213.7	192.7	179.3	172.5
37.5°	217.0	199.0	177.2	162.9	155.3
40°	201.9	183.9	161.6	146.9	139.0
42.5°	186.0	168.8	146.9	129.7	122.2
45°	170.9	152.8	131.8	113.8	105.4
47.5°	154.5	137.7	117.1	98.7	92.8
50°	137.7	122.2	102.9	86.1	83.1
52.5°	121.3	108.3	88.6	77.7	76.4
55°	104.5	93.6	76.8	70.1	68.0
57.5°	89.0	81.0	65.9	62.6	61.7
60°	74.3	67.6	58.4	56.3	55.0
62.5°	60.0	56.3	50.8	50.0	49.1
65°	47.9	46.2	43.7	43.7	43.2
67.5°	37.8	37.8	37.4	38.2	37.8
70°	30.2	30.6	31.5	32.3	32.7
72.5°	23.9	25.2	26.0	27.3	27.7
75°	18.5	19.7	21.4	22.2	23.1
77.5°	13.4	14.7	16.4	17.6	18.5
80°	9.2	10.1	11.8	13.4	14.3
82.5°	5.9	6.3	7.6	9.2	10.1
85°	2.5	2.9	3.8	5.5	6.3
87.5°	0.0	0.0	0.4	1.7	2.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)