

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: P1059192

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

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1059192  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-64)  
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-W  
Description: DEFINE 3 WHITE REGRESSED DIRECT RECESSED HOUSING WITH WHITE STRAIGHT BLADE LOUVER WITH DIFFUSER  
CORE LIGHT ENGINE  
Light Source: 4000K CCT, 80 CRI LEDS  
Ballast/Driver: -

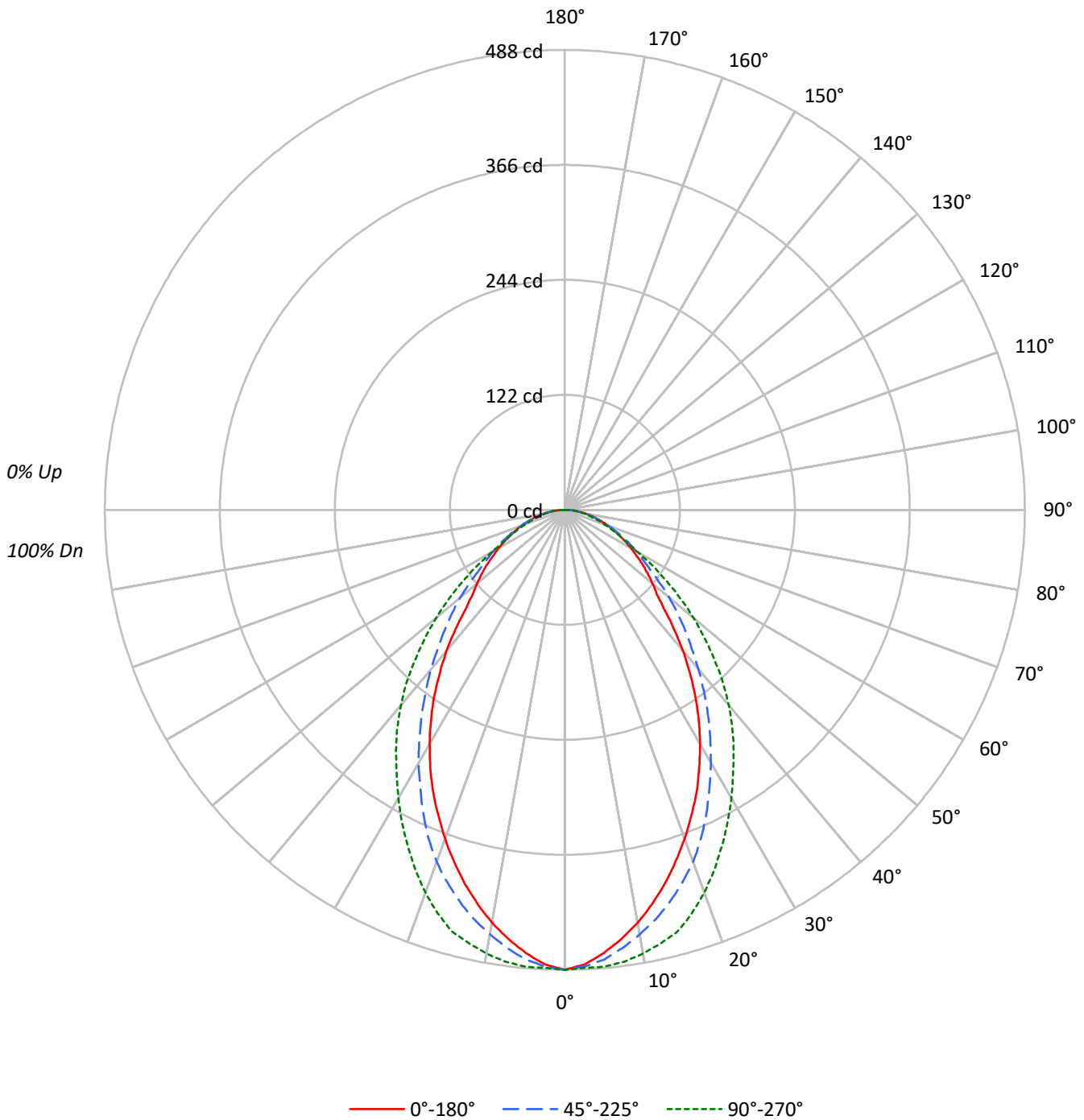
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 857.8 lumens  
Efficiency: N/A  
Efficacy: 68.6 lumens/watt  
Spacing Criteria (0/90/45): 0.94 / 1.1 / 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				100
1	110	106	102	99	108	104	101	97	100	97	94	96	94	92	92	91	89	87				87
2	102	95	89	84	99	93	87	83	89	85	81	86	82	79	83	80	77	75				75
3	94	85	77	72	92	83	76	71	80	75	70	78	73	69	75	71	68	66				66
4	87	76	69	63	85	75	68	62	73	66	61	70	65	61	68	64	60	58				58
5	81	69	61	55	79	68	61	55	66	59	54	64	58	54	62	57	53	51				51
6	75	63	55	49	73	62	55	49	61	54	49	59	53	48	57	52	48	46				46
7	70	58	50	44	69	57	50	44	56	49	44	54	48	44	53	48	43	41				41
8	66	53	46	40	64	53	45	40	51	45	40	50	44	40	49	44	39	38				38
9	62	49	42	37	60	49	42	37	48	41	36	47	41	36	46	40	36	34				34
10	58	46	39	34	57	45	38	34	45	38	34	44	38	33	43	37	33	32				32

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

	0°	45°	90°
0°	5731	5731	5731
5°	5566	5645	5735
10°	5305	5455	5701
15°	4989	5235	5627
20°	4641	4966	5402
25°	4283	4605	5105
30°	3890	4203	4790
35°	3462	3794	4474
40°	2988	3380	4146
45°	2469	2992	3718
50°	2218	2640	3246
55°	2055	2254	2692
60°	1895	2053	2062
65°	1762	1856	1728
70°	1658	1689	1514
75°	1561	1506	1334
80°	1474	1366	1251
85°	1415	1522	1415

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 3718 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	45.2	5.3
10°-20°	121.8	14.2
20°-30°	164.8	19.2
30°-40°	169.3	19.7
40°-50°	142.2	16.6
50°-60°	102.0	11.9
60°-70°	64.9	7.6
70°-80°	35.7	4.2
80°-90°	11.9	1.4
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°	331.8	38.7
0°-40°	501.1	58.4
0°-60°	745.3	86.9
0°-90°	857.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	857.8	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	488	488	488	488	488	
5°	472	481	479	482	486	44
15°	410	422	431	449	463	115
25°	331	343	355	375	394	152
35°	242	255	265	288	312	150
45°	149	162	180	206	224	117
55°	100	102	110	125	132	90
65°	63	67	67	63	62	63
75°	34	38	33	31	29	37
85°	10	11	11	12	10	12
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	488.1	488.1	488.1	488.1	488.1
2.5°	482.7	489.4	484.8	485.2	486.5
5°	472.2	480.6	478.9	482.3	486.5
7.5°	459.2	468.4	468.8	476.8	483.5
10°	444.9	454.5	457.5	469.7	478.1
12.5°	428.1	438.6	444.9	460.0	470.9
15°	410.4	421.8	430.6	449.1	462.9
17.5°	391.1	403.3	414.6	434.4	448.7
20°	371.4	384.4	397.4	415.9	432.3
22.5°	350.8	364.2	377.7	395.7	413.8
25°	330.6	343.2	355.4	374.7	394.0
27.5°	308.8	321.8	332.3	353.7	373.9
30°	286.9	299.9	310.0	332.3	353.3
32.5°	264.2	277.7	286.9	310.0	331.9
35°	241.5	254.6	264.7	288.2	312.1
37.5°	217.6	231.9	242.0	268.4	292.0
40°	194.9	208.4	220.5	248.3	270.5
42.5°	171.4	185.3	199.1	227.7	248.3
45°	148.7	161.7	180.2	206.3	223.9
47.5°	132.3	140.7	162.2	184.0	200.8
50°	121.4	124.8	144.5	163.8	177.7
52.5°	110.5	113.0	126.4	144.1	154.6
55°	100.4	102.5	110.1	124.8	131.5
57.5°	89.5	91.6	97.9	106.3	110.1
60°	80.7	82.3	87.4	88.6	87.8
62.5°	71.8	74.4	76.9	73.9	72.7
65°	63.4	67.2	66.8	63.0	62.2
67.5°	55.9	59.7	57.6	53.8	52.5
70°	48.3	52.1	49.2	45.4	44.1
72.5°	41.2	45.4	40.7	37.4	36.5
75°	34.4	37.8	33.2	30.7	29.4
77.5°	28.1	30.7	26.5	24.4	23.5
80°	21.8	23.5	20.2	18.9	18.5
82.5°	16.0	16.8	14.7	15.5	15.1
85°	10.5	10.9	11.3	11.8	10.5
87.5°	5.0	7.1	7.1	6.7	5.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)