

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: P1059182

Luminaire Tested: S123RDR-S340D835-X4F0-XX-UDD-WVL-S

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1059182  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-67 )  
Test Lab: INNOVATION CENTER  
Issue Date: 8/7/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S123RDR-S340D835-X4F0-XX-UDD-WVL-S  
Description: DEFINE 3 SILVER REGRESSED DIRECT RECESSED HOUSING WITH WHITE STRAIGHT BLADE  
LOUVER WITH DIFFUSER  
CORE LIGHT ENGINE  
Light Source: 3500K CCT, 80 CRI LEDS  
Ballast/Driver: -

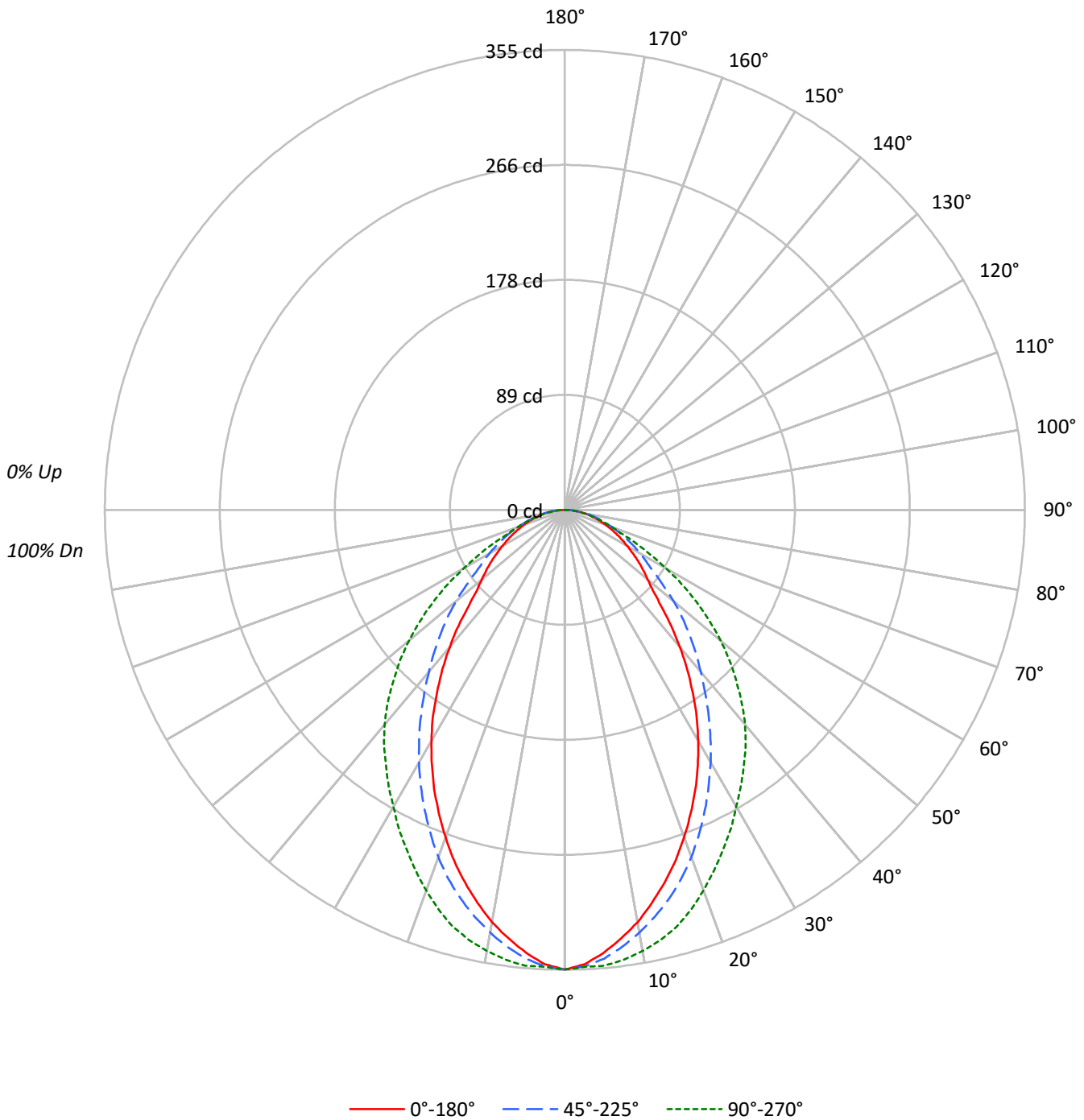
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 640.9 lumens  
Efficiency: N/A  
Efficacy: 51.3 lumens/watt  
Spacing Criteria (0/90/45): 0.93 / 1.12 / 1.1  
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										
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	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	110	106	102	99	108	104	100	97	100	97	94	96	93	91	92	90	89	87																				
2	102	94	88	83	99	92	87	82	89	84	80	86	82	78	83	80	77	75																				
3	94	84	77	71	91	83	76	71	80	74	69	77	72	68	75	71	67	65																				
4	87	76	68	62	84	74	67	61	72	66	61	70	64	60	68	63	59	57																				
5	80	69	60	54	78	68	60	54	65	59	54	64	58	53	62	57	53	51																				
6	75	63	54	48	73	62	54	48	60	53	48	58	52	47	57	51	47	45																				
7	70	57	49	44	68	56	49	43	55	48	43	54	47	43	52	47	43	41																				
8	65	53	45	39	64	52	45	39	51	44	39	50	43	39	48	43	39	37																				
9	61	49	41	36	60	48	41	36	47	40	36	46	40	36	45	39	35	34																				
10	58	45	38	33	56	45	38	33	44	37	33	43	37	33	42	37	33	31																				

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

	0°	45°	90°
0°	4166	4166	4166
5°	4045	4098	4162
10°	3854	3953	4122
15°	3620	3777	4051
20°	3363	3565	3909
25°	3087	3314	3746
30°	2792	3051	3586
35°	2463	2772	3452
40°	2117	2500	3316
45°	1740	2252	3109
50°	1527	2006	2864
55°	1413	1711	2539
60°	1299	1573	2100
65°	1214	1445	1653
70°	1143	1315	1315
75°	1075	1207	1134
80°	1014	1095	953
85°	957	1064	728

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 3109 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	32.8	5.1
10°-20°	87.9	13.7
20°-30°	119.2	18.6
30°-40°	124.7	19.5
40°-50°	108.1	16.9
50°-60°	80.4	12.6
60°-70°	51.6	8.1
70°-80°	27.7	4.3
80°-90°	8.4	1.3
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°	240.0	37.4
0°-40°	364.7	56.9
0°-60°	553.3	86.3
0°-90°	640.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	640.9	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	355	355	355	355	355	
5°	343	349	348	350	353	32
15°	298	305	311	323	333	83
25°	238	246	256	273	289	109
35°	172	180	193	218	241	107
45°	105	113	136	165	187	82
55°	69	71	84	107	124	62
65°	44	47	52	55	60	43
75°	24	28	27	25	25	25
85°	7	9	8	7	5	8
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	354.8	354.8	354.8	354.8	354.8
2.5°	351.1	356.1	352.7	352.7	353.1
5°	343.2	349.0	347.7	350.2	353.1
7.5°	333.6	339.8	340.2	346.1	350.2
10°	323.2	329.4	331.5	339.8	345.7
12.5°	310.7	317.8	321.5	331.9	340.2
15°	297.8	304.9	310.7	323.2	333.2
17.5°	284.1	291.2	298.7	312.8	323.6
20°	269.1	276.6	285.3	299.5	312.8
22.5°	253.7	261.6	270.8	286.2	301.1
25°	238.3	245.8	255.8	272.9	289.1
27.5°	222.1	230.0	240.4	259.1	277.4
30°	205.9	213.8	225.0	245.0	264.5
32.5°	189.3	197.2	209.2	231.7	252.9
35°	171.8	180.1	193.4	218.0	240.8
37.5°	155.1	163.1	178.0	205.1	229.2
40°	138.1	146.4	163.1	192.2	216.3
42.5°	121.5	129.8	149.3	178.4	202.2
45°	104.8	112.7	135.6	164.7	187.2
47.5°	91.9	97.7	122.7	150.2	172.6
50°	83.6	85.7	109.8	136.0	156.8
52.5°	76.1	77.8	95.7	121.9	140.6
55°	69.0	70.7	83.6	107.3	124.0
57.5°	62.0	64.1	74.5	92.3	107.3
60°	55.3	57.8	67.0	79.0	89.4
62.5°	49.5	52.4	59.5	67.0	74.0
65°	43.7	47.4	52.0	55.3	59.5
67.5°	38.3	42.4	44.9	45.8	46.2
70°	33.3	37.4	38.3	38.3	38.3
72.5°	28.3	32.9	32.0	31.6	31.2
75°	23.7	27.5	26.6	25.4	25.0
77.5°	19.1	22.5	21.2	20.4	19.1
80°	15.0	17.5	16.2	15.4	14.1
82.5°	11.2	12.9	11.6	10.8	9.6
85°	7.1	8.7	7.9	6.7	5.4
87.5°	3.7	5.0	4.2	3.7	2.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)