

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: P1059181

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

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1059181  
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-S340D835-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: 3500K CCT, 80 CRI LEDS  
Ballast/Driver: -

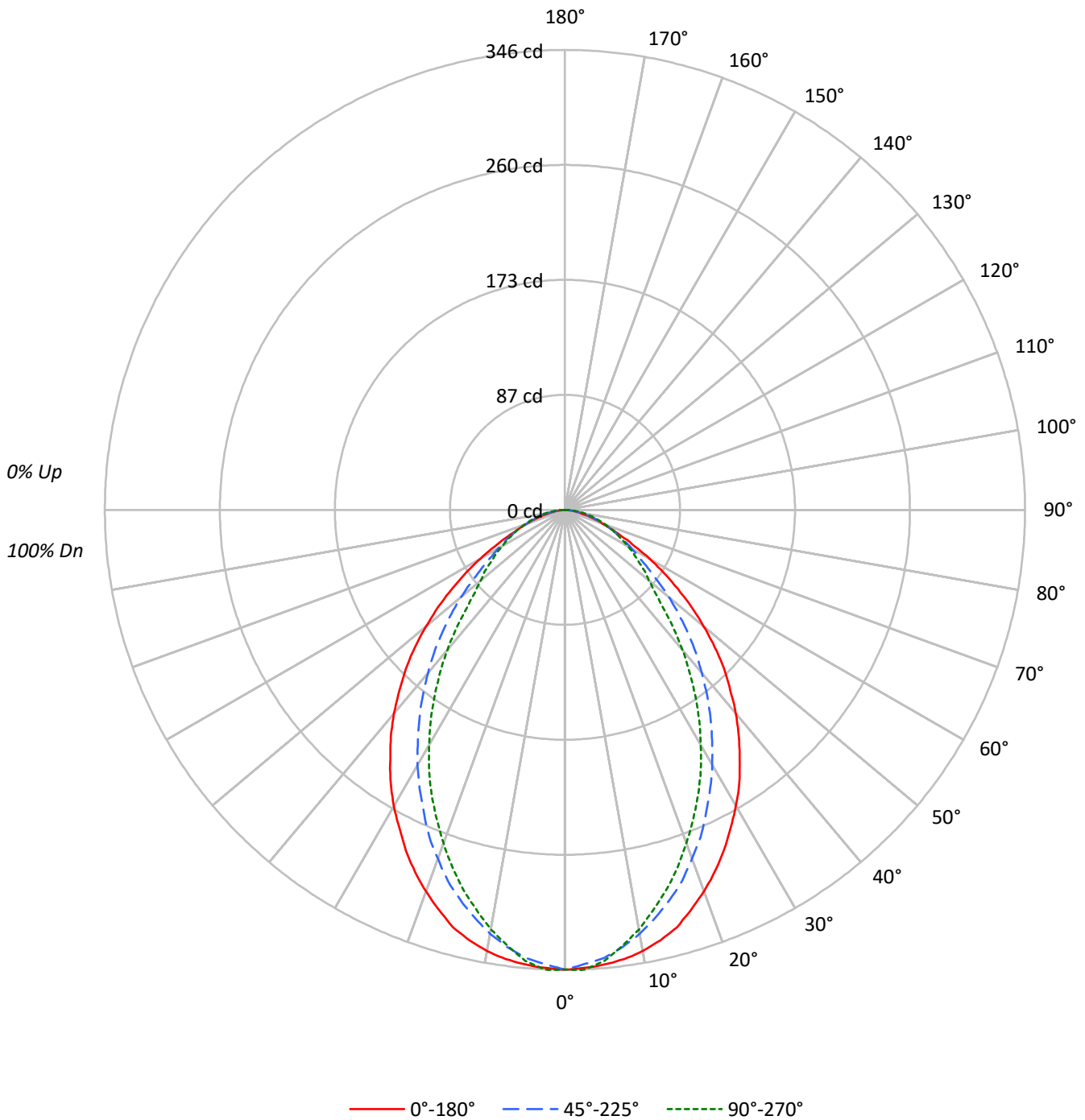
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 604.9 lumens  
Efficiency: N/A  
Efficacy: 48.4 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	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°	4062	4062	4062
5°	4048	3989	4014
10°	4019	3861	3822
15°	3952	3694	3594
20°	3818	3490	3335
25°	3663	3253	3069
30°	3489	3005	2767
35°	3284	2735	2450
40°	3066	2453	2109
45°	2810	2167	1732
50°	2490	1860	1503
55°	2119	1558	1378
60°	1728	1357	1280
65°	1317	1200	1189
70°	1027	1071	1112
75°	830	962	1039
80°	615	784	953
85°	337	498	835

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 2810 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	32.1	5.3
10°-20°	86.4	14.3
20°-30°	117.4	19.4
30°-40°	121.7	20.1
40°-50°	102.7	17.0
50°-60°	72.9	12.0
60°-70°	44.5	7.4
70°-80°	22.1	3.7
80°-90°	5.0	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°	235.9	39.0
0°-40°	357.6	59.1
0°-60°	533.2	88.1
0°-90°	604.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	604.9	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	346	346	346	346	346	
5°	343	343	338	340	340	33
15°	325	319	304	298	296	91
25°	283	270	251	242	237	130
35°	229	212	191	178	171	143
45°	169	151	130	113	104	130
55°	104	93	76	69	67	93
65°	47	46	43	43	43	48
75°	18	20	21	22	23	20
85°	2	3	4	5	6	3
90°	0	0	0	0	0	

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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	345.9	345.9	345.9	345.9	345.9
2.5°	345.0	345.4	342.1	345.9	346.3
5°	343.4	343.4	338.4	340.5	340.5
7.5°	340.9	340.0	331.7	331.7	330.9
10°	337.1	334.6	323.8	321.8	320.5
12.5°	331.7	327.6	314.3	310.5	308.0
15°	325.1	318.8	303.9	298.5	295.6
17.5°	315.5	309.3	292.7	285.2	281.8
20°	305.5	296.4	279.3	271.9	266.9
22.5°	294.7	283.1	266.5	257.3	251.9
25°	282.7	270.2	251.1	241.9	236.9
27.5°	269.8	256.1	236.5	226.1	221.2
30°	257.3	241.5	221.6	209.9	204.1
32.5°	244.0	226.1	205.8	193.7	187.9
35°	229.1	211.6	190.8	177.5	170.9
37.5°	214.9	197.0	175.4	161.3	153.8
40°	200.0	182.1	160.0	145.5	137.6
42.5°	184.2	167.1	145.5	128.5	121.0
45°	169.2	151.3	130.5	112.7	104.3
47.5°	153.0	136.3	116.0	97.7	91.9
50°	136.3	121.0	101.8	85.2	82.3
52.5°	120.1	107.3	87.7	76.9	75.7
55°	103.5	92.7	76.1	69.4	67.3
57.5°	88.1	80.2	65.3	61.9	61.1
60°	73.6	66.9	57.8	55.7	54.5
62.5°	59.4	55.7	50.3	49.5	48.6
65°	47.4	45.7	43.2	43.2	42.8
67.5°	37.4	37.4	37.0	37.8	37.4
70°	29.9	30.3	31.2	32.0	32.4
72.5°	23.7	24.9	25.8	27.0	27.4
75°	18.3	19.5	21.2	22.0	22.9
77.5°	13.3	14.5	16.2	17.5	18.3
80°	9.1	10.0	11.6	13.3	14.1
82.5°	5.8	6.2	7.5	9.1	10.0
85°	2.5	2.9	3.7	5.4	6.2
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)