

Cooper Lighting Solutions Photometric Lab  
1121 Highway 74 South  
Peachtree City, GA 30269



Scaled data based on original data using  
LM-79-2024 Approved Method: Electrical and Photometric Measurements of Solid-  
State Lighting Products

Test Report Prepared for  
Cooper Lighting Solutions

Brand: NEO-RAY

Report Number: P1059211

Luminaire Tested: S123RDRP-S340D930-X4F0-XX-UDD-BVL-B

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2024  
Report Number: P1059211  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2406-143-30)  
Test Lab: INNOVATION CENTER  
Issue Date: 8/7/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S123RDRP-S340D930-X4F0-XX-UDD-BVL-B  
Description: DEFINE 3 BLACK REGRESSED DIRECT RECESSED HOUSING WITH BLACK STRAIGHT BLADE  
LOUVER WITH DIFFUSER  
CORE LIGHT ENGINE  
Light Source: 3000K CCT, 90 CRI LEDS  
Ballast/Driver: -

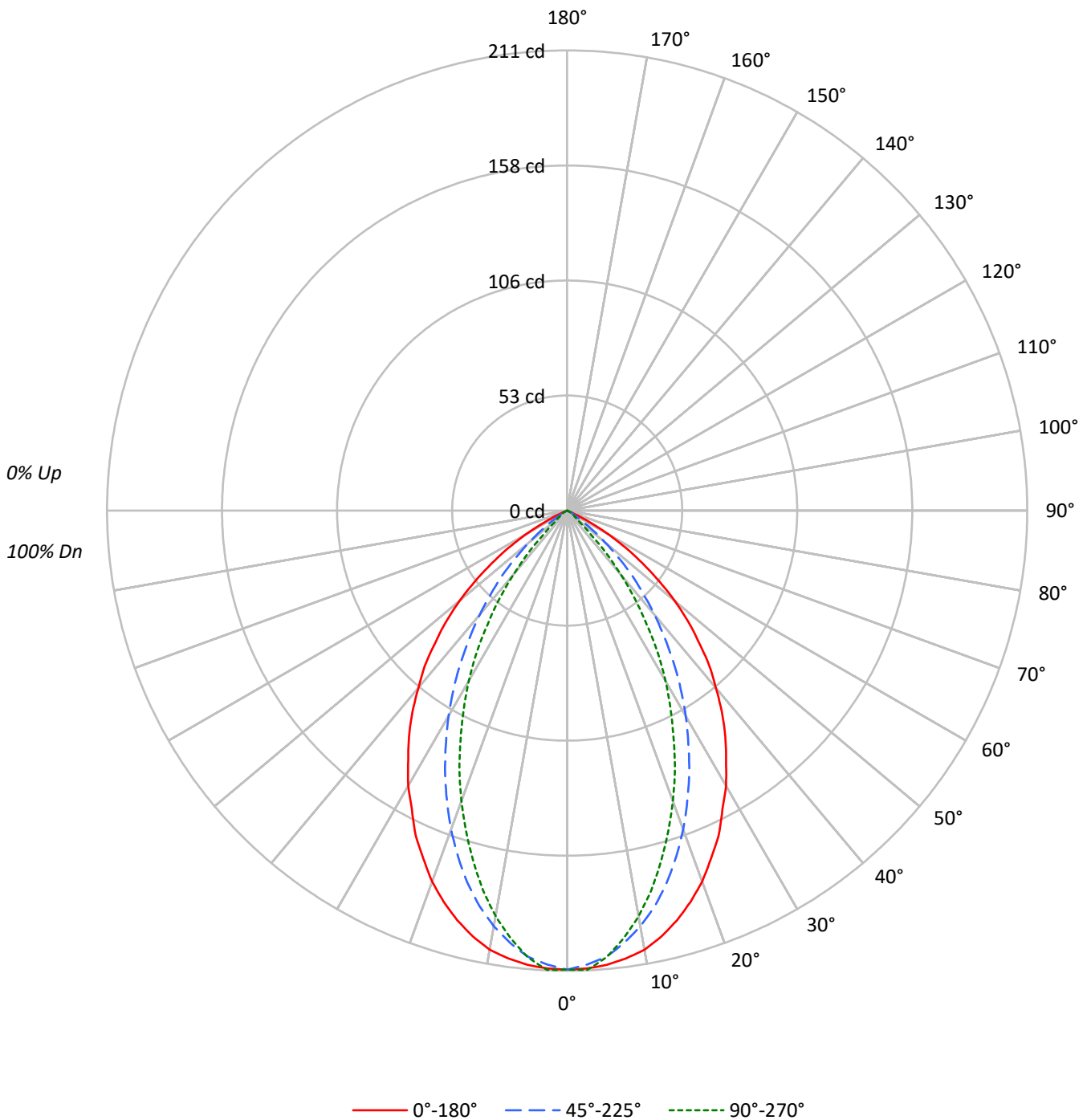
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 240.1 lumens  
Efficiency: N/A  
Efficacy: 19.2 lumens/watt  
Spacing Criteria (0/90/45): 1.06 / 0.81 / 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 (A<sub>in</sub>): 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	113	110	107	104	110	107	105	103	103	101	100	100	98	97	96	95	94	92
2	106	101	96	92	104	99	95	91	96	92	89	93	90	87	90	87	85	84
3	100	92	87	82	98	91	86	82	88	84	80	86	82	79	83	80	78	76
4	94	85	79	74	92	84	78	74	82	77	73	80	75	72	78	74	71	69
5	88	79	72	67	86	78	71	67	76	70	66	74	69	65	72	68	65	63
6	83	73	66	61	81	72	66	61	70	65	60	69	64	60	67	63	60	58
7	78	68	61	56	77	67	60	56	66	60	56	64	59	55	63	58	55	53
8	74	63	56	52	72	62	56	51	61	55	51	60	55	51	59	54	51	49
9	70	59	52	48	68	58	52	48	57	52	47	56	51	47	55	51	47	46
10	66	55	49	44	65	55	48	44	54	48	44	53	48	44	52	47	44	42

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

	0°	45°	90°
0°	2472	2472	2472
5°	2465	2421	2425
10°	2437	2307	2251
15°	2364	2147	2023
20°	2262	1944	1771
25°	2130	1717	1498
30°	1976	1475	1222
35°	1812	1220	909
40°	1626	957	582
45°	1418	697	242
50°	1176	415	93
55°	868	174	70
60°	526	63	40
65°	142	39	19
70°	0	10	10
75°	0	0	14
80°	0	0	0
85°	0	0	0

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 1418 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	19.4	8.1
10°-20°	50.0	20.8
20°-30°	62.3	25.9
30°-40°	55.7	23.2
40°-50°	35.2	14.6
50°-60°	14.7	6.1
60°-70°	2.8	1.2
70°-80°	0.1	0.0
80°-90°	0.0	0.0
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°	131.7	54.8
0°-40°	187.4	78.0
0°-60°	237.3	98.8
0°-90°	240.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	240.1	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	210	210	210	210	210	
5°	209	209	205	206	206	20
15°	194	190	177	169	166	55
25°	164	151	132	121	116	75
35°	126	108	85	70	63	79
45°	85	66	42	22	15	66
55°	42	29	8	3	3	38
65°	5	4	1	1	1	7
75°	0	0	0	0	0	0
85°	0	0	0	0	0	0
90°	0	0	0	0	0	0



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	210.5	210.5	210.5	210.5	210.5
2.5°	210.1	210.5	208.4	210.5	210.8
5°	209.1	208.8	205.4	206.1	205.7
7.5°	207.1	206.1	200.0	198.6	197.9
10°	204.4	201.6	193.5	190.1	188.8
12.5°	200.0	196.2	185.7	180.3	178.3
15°	194.5	189.8	176.6	169.1	166.4
17.5°	188.1	181.3	166.4	158.3	154.2
20°	181.0	171.5	155.6	145.7	141.7
22.5°	172.5	162.0	144.0	133.5	129.1
25°	164.4	151.1	132.5	121.0	115.6
27.5°	154.2	140.3	120.3	108.4	102.7
30°	145.7	129.8	108.8	95.6	90.1
32.5°	135.6	119.0	96.9	82.4	77.3
35°	126.4	108.1	85.1	69.8	63.4
37.5°	116.6	97.6	73.2	57.3	51.2
40°	106.1	87.1	62.4	44.7	38.0
42.5°	96.6	76.6	51.5	33.2	26.4
45°	85.4	66.4	42.0	22.4	14.6
47.5°	75.2	56.9	31.9	12.5	7.8
50°	64.4	47.1	22.7	6.4	5.1
52.5°	53.2	37.6	14.9	4.4	4.1
55°	42.4	29.1	8.5	3.4	3.4
57.5°	31.9	21.0	4.4	2.7	2.4
60°	22.4	13.9	2.7	2.0	1.7
62.5°	12.9	8.1	2.0	1.4	1.4
65°	5.1	3.7	1.4	0.7	0.7
67.5°	0.3	1.0	0.7	0.3	0.3
70°	0.0	0.0	0.3	0.3	0.3
72.5°	0.0	0.0	0.3	0.3	0.3
75°	0.0	0.0	0.0	0.0	0.3
77.5°	0.0	0.0	0.0	0.0	0.0
80°	0.0	0.0	0.0	0.0	0.0
82.5°	0.0	0.0	0.0	0.0	0.0
85°	0.0	0.0	0.0	0.0	0.0
87.5°	0.0	0.0	0.0	0.0	0.0
90°	0.0	0.0	0.0	0.0	0.0

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**CIE UGR TABLE:**

Reflectances:											
Ceiling		0.7	0.7	0.5	0.5	0.3	0.7	0.7	0.5	0.5	0.3
Wall		0.5	0.3	0.5	0.3	0.3	0.5	0.3	0.5	0.3	0.3
Reference plane		0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Room dimensions		Viewed crosswise					Viewed endwise				
X=2H	Y=2H	8.33	9.51	8.70	9.82	10.14	0.00	0.00	0.00	0.00	0.00
	3H	8.17	9.21	8.56	9.54	9.90	0.00	0.00	0.00	0.00	0.00
	4H	8.09	9.04	8.49	9.39	9.78	0.00	0.00	0.00	0.00	0.00
	6H	8.00	8.87	8.41	9.24	9.64	0.00	0.00	0.00	0.00	0.00
	8H	7.95	8.77	8.38	9.16	9.57	0.00	0.00	0.00	0.00	0.00
	12H	7.90	8.68	8.33	9.06	9.49	0.00	0.00	0.00	0.00	0.00
4H	2H	8.09	9.05	8.50	9.40	9.79	0.00	0.00	0.00	0.00	0.00
	3H	7.93	8.70	8.34	9.10	9.51	0.00	0.00	0.00	0.00	0.00
	4H	7.82	8.51	8.26	8.93	9.37	0.00	0.00	0.00	0.00	0.00
	6H	7.73	8.31	8.19	8.76	9.23	0.00	0.00	0.00	0.00	0.00
	8H	7.66	8.21	8.14	8.66	9.13	0.00	0.00	0.00	0.00	0.00
	12H	7.60	8.08	8.09	8.57	9.04	0.00	0.00	0.00	0.00	0.00
8H	4H	7.66	8.21	8.14	8.66	9.13	0.00	0.00	0.00	0.00	0.00
	6H	7.55	7.99	8.05	8.49	8.97	0.00	0.00	0.00	0.00	0.00
	8H	7.47	7.87	8.00	8.39	8.88	0.00	0.00	0.00	0.00	0.00
	12H	7.42	7.77	7.94	8.27	8.84	0.00	0.00	0.00	0.00	0.00
12H	4H	7.61	8.08	8.09	8.57	9.04	0.00	0.00	0.00	0.00	0.00
	6H	7.47	7.87	8.00	8.39	8.88	0.00	0.00	0.00	0.00	0.00
	8H	7.42	7.77	7.94	8.27	8.84	0.00	0.00	0.00	0.00	0.00