

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: P1059212

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

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2024  
Report Number: P1059212  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-69)  
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-S  
Description: DEFINE 3 SILVER REGRESSED DIRECT RECESSED HOUSING WITH BLACK STRAIGHT BLADE  
LOUVER WITH DIFFUSER  
CORE LIGHT ENGINE  
Light Source: 3000K CCT, 90 CRI LEDS  
Ballast/Driver: -

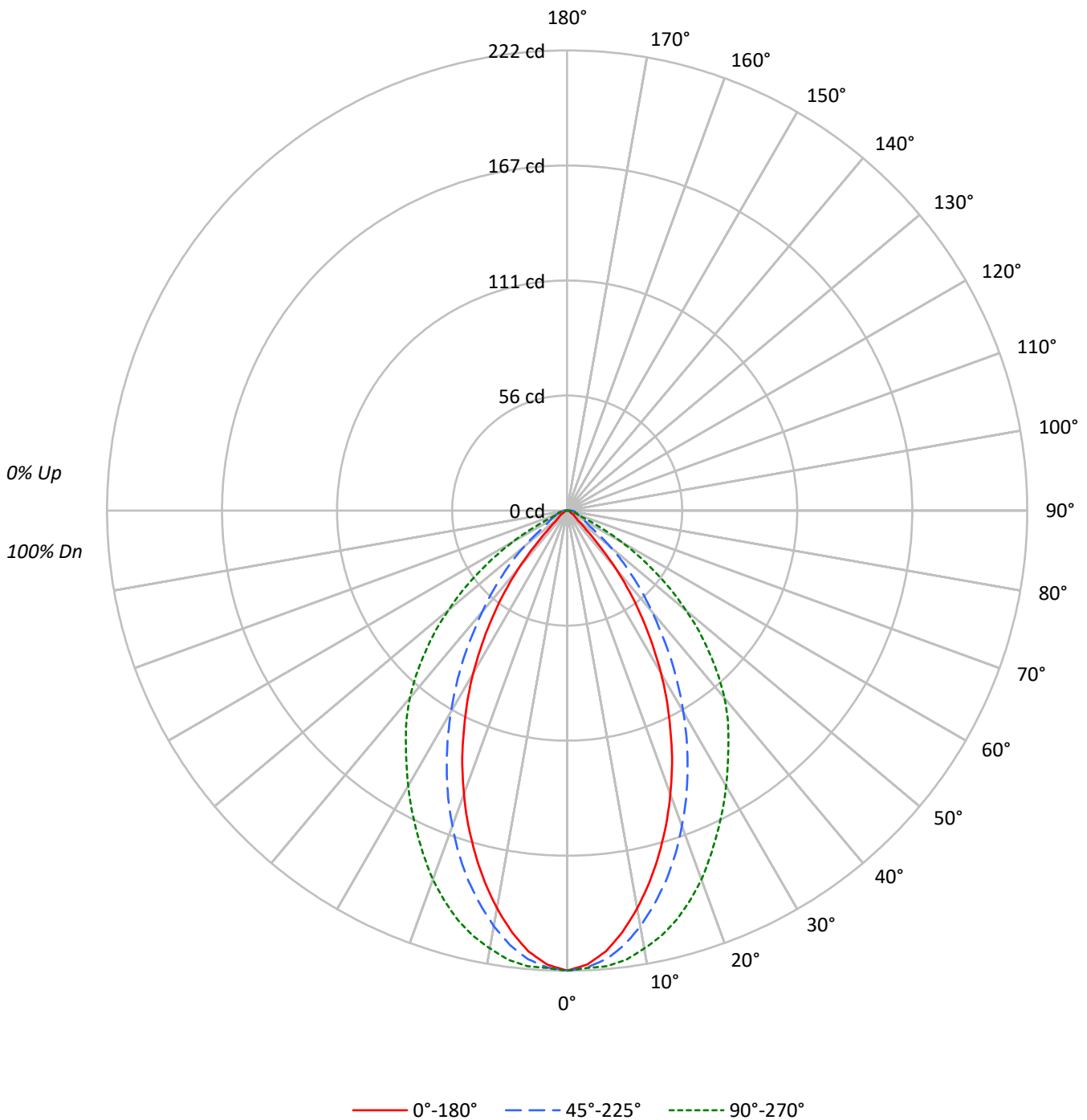
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 266.6 lumens  
Efficiency: N/A  
Efficacy: 21.3 lumens/watt  
Spacing Criteria (0/90/45): 0.79 / 1.06 / 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	112	108	105	102	109	106	103	101	102	100	98	98	96	95	95	93	92	90
2	105	99	94	89	102	97	92	88	94	90	86	90	87	85	88	85	83	81
3	98	90	84	79	96	89	83	78	86	81	77	83	79	76	81	78	75	73
4	92	83	76	71	90	81	75	70	79	74	69	77	72	69	75	71	68	66
5	86	76	69	64	84	75	68	64	73	67	63	71	66	62	70	65	62	60
6	81	70	63	58	79	69	63	58	68	62	57	66	61	57	65	60	57	55
7	76	65	58	53	75	64	58	53	63	57	53	62	56	52	61	56	52	50
8	72	61	54	49	70	60	53	49	59	53	48	58	52	48	57	52	48	46
9	68	57	50	45	67	56	50	45	55	49	45	54	49	45	53	48	45	43
10	64	53	46	42	63	53	46	42	52	46	42	51	45	42	50	45	41	40

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

	0°	45°	90°
0°	2606	2606	2606
5°	2517	2560	2600
10°	2323	2428	2558
15°	2084	2244	2484
20°	1819	2023	2367
25°	1530	1780	2221
30°	1228	1519	2080
35°	900	1250	1945
40°	556	973	1810
45°	214	732	1612
50°	106	502	1365
55°	84	278	1071
60°	56	230	716
65°	47	208	320
70°	48	185	185
75°	64	200	186
80°	95	250	210
85°	135	418	269

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 1612 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	20.3	7.6
10°-20°	52.1	19.5
20°-30°	64.7	24.2
30°-40°	57.9	21.7
40°-50°	38.1	14.3
50°-60°	19.1	7.2
60°-70°	7.5	2.8
70°-80°	4.2	1.6
80°-90°	2.7	1.0
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°	137.1	51.4
0°-40°	195.0	73.1
0°-60°	252.2	94.6
0°-90°	266.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	266.6	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	222	222	222	222	222	
5°	214	217	217	218	221	20
15°	171	177	185	197	204	48
25°	118	126	137	157	171	54
35°	63	71	87	114	136	39
45°	13	21	44	74	97	12
55°	4	5	14	37	52	4
65°	2	5	8	10	12	2
75°	1	4	4	4	4	1
85°	1	3	3	3	2	1
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	221.9	221.9	221.9	221.9	221.9
2.5°	219.2	222.3	220.6	220.6	220.9
5°	213.5	216.8	217.2	218.5	220.6
7.5°	205.0	209.4	211.4	215.5	218.5
10°	194.8	199.5	203.6	210.7	214.5
12.5°	183.6	188.3	194.4	204.3	210.1
15°	171.4	176.8	184.6	197.2	204.3
17.5°	158.8	164.2	173.7	188.0	197.2
20°	145.6	151.7	161.9	178.2	189.4
22.5°	132.3	139.1	150.0	167.6	180.5
25°	118.1	125.6	137.4	156.8	171.4
27.5°	104.5	112.3	124.9	145.9	162.5
30°	90.6	98.4	112.0	134.7	153.4
32.5°	76.4	85.2	99.4	124.2	144.2
35°	62.8	71.3	87.2	114.0	135.7
37.5°	49.5	58.0	74.7	104.2	127.3
40°	36.3	45.1	63.5	94.7	118.1
42.5°	23.8	32.9	53.6	85.2	107.9
45°	12.9	21.4	44.1	74.3	97.1
47.5°	7.1	11.5	35.6	64.1	86.5
50°	5.8	6.4	27.5	54.6	74.7
52.5°	4.8	5.4	19.7	45.5	63.8
55°	4.1	4.8	13.6	36.7	52.3
57.5°	3.4	4.1	10.9	28.2	41.1
60°	2.4	4.1	9.8	20.7	30.5
62.5°	2.0	4.1	8.5	14.3	20.4
65°	1.7	4.8	7.5	9.5	11.5
67.5°	1.4	4.8	6.4	6.1	6.1
70°	1.4	4.8	5.4	5.1	5.4
72.5°	1.4	5.1	5.1	4.8	4.8
75°	1.4	4.4	4.4	4.1	4.1
77.5°	1.4	4.1	4.1	3.7	3.7
80°	1.4	3.7	3.7	3.4	3.1
82.5°	1.4	3.4	3.4	3.1	2.7
85°	1.0	3.1	3.1	3.1	2.0
87.5°	1.0	2.7	3.1	2.7	1.7
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	0.00	0.00	0.00	0.00	0.00	9.88	11.14	10.25	11.45	11.77
	3H	0.00	0.00	0.00	0.00	0.19	9.96	11.07	10.34	11.40	11.77
	4H	0.00	0.58	0.00	0.94	1.32	10.02	11.06	10.43	11.41	11.80
	6H	0.61	1.56	1.03	1.93	2.33	10.12	11.07	10.54	11.44	11.84
	8H	1.16	2.06	1.59	2.45	2.86	10.18	11.08	10.61	11.47	11.88
	12H	1.63	2.49	2.06	2.87	3.30	10.25	11.11	10.68	11.49	11.92
4H	2H	0.00	0.12	0.00	0.47	0.85	9.74	10.78	10.15	11.13	11.51
	3H	1.55	2.40	1.97	2.80	3.21	9.91	10.76	10.33	11.17	11.57
	4H	2.89	3.64	3.32	4.06	4.51	10.04	10.80	10.48	11.22	11.67
	6H	4.02	4.68	4.49	5.12	5.59	10.26	10.91	10.72	11.36	11.83
	8H	4.54	5.15	5.01	5.60	6.07	10.39	11.00	10.86	11.44	11.92
	12H	5.00	5.53	5.48	6.02	6.49	10.54	11.08	11.03	11.57	12.04
8H	4H	3.80	4.41	4.27	4.86	5.33	10.05	10.66	10.52	11.11	11.58
	6H	5.39	5.89	5.89	6.39	6.87	10.38	10.88	10.88	11.37	11.86
	8H	6.22	6.67	6.74	7.19	7.68	10.61	11.06	11.13	11.58	12.07
	12H	7.01	7.41	7.52	7.90	8.47	10.93	11.33	11.45	11.83	12.40
12H	4H	3.96	4.50	4.45	4.99	5.46	10.04	10.58	10.52	11.06	11.54
	6H	5.70	6.15	6.23	6.67	7.16	10.41	10.86	10.93	11.37	11.87
	8H	6.72	7.12	7.23	7.61	8.18	10.72	11.12	11.24	11.62	12.19