

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



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: P1059448

Luminaire Tested: S123RDR-H1000D927-X4F0-XX-UDD-SVL-B

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1059448
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2406-143-29)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S123RDR-H1000D927-X4F0-XX-UDD-SVL-B
Description: DEFINE 3 BLACK REGRESSED DIRECT RECESSED HOUSING WITH SILVER STRAIGHT BLADE
LOUVER WITH DIFFUSER
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 2700K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

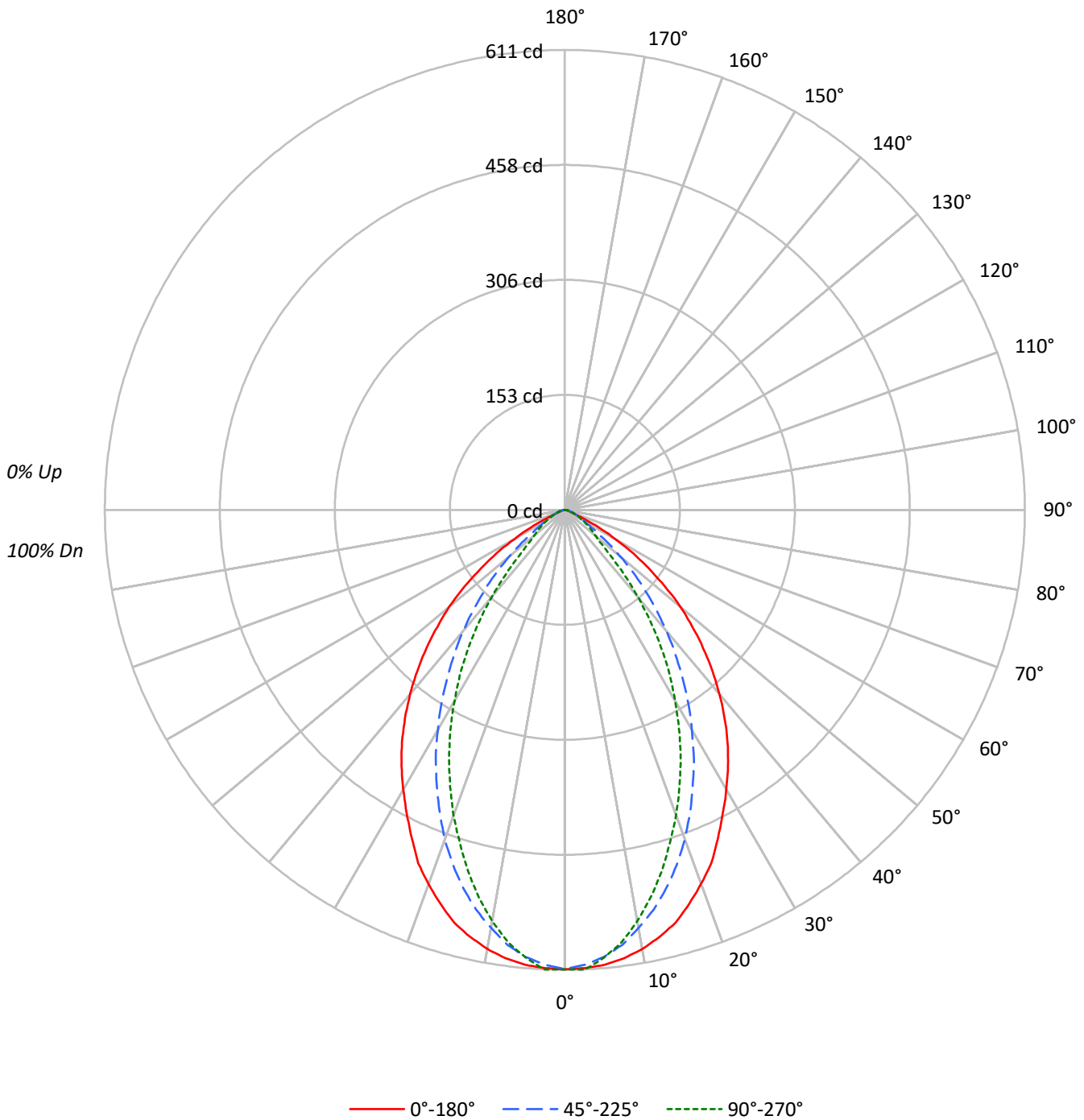
Lumens per Lamp: N/A
Luminaire Lumens: 787.9 lumens
Efficiency: N/A
Efficacy: 25.3 lumens/watt
Spacing Criteria (0/90/45): 1.08 / 0.85 / 0.98
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 31.2
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	112	109	106	103	110	107	104	102	103	100	98	99	97	95	95	94	93	91			91	
2	105	99	94	90	103	97	93	89	94	90	87	91	88	85	88	86	83	82			82	
3	98	90	84	80	96	89	83	79	86	82	78	84	80	76	81	78	75	73			73	
4	92	83	76	71	90	82	75	71	79	74	70	77	73	69	75	71	68	66			66	
5	86	76	69	64	84	75	68	63	73	67	63	71	66	62	70	65	62	60			60	
6	81	70	63	58	79	69	62	58	68	62	57	66	61	57	65	60	56	55			55	
7	76	65	58	53	74	64	57	53	63	57	52	61	56	52	60	55	52	50			50	
8	71	60	53	48	70	60	53	48	58	52	48	57	52	48	56	51	48	46			46	
9	67	56	49	45	66	56	49	44	55	49	44	54	48	44	53	48	44	42			42	
10	64	52	46	41	63	52	46	41	51	45	41	50	45	41	49	44	41	39			39	

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	7168	7168	7168
5°	7150	7028	7039
10°	7064	6726	6613
15°	6904	6329	6042
20°	6612	5821	5396
25°	6231	5215	4714
30°	5817	4573	3971
35°	5404	3901	3197
40°	4896	3216	2318
45°	4314	2494	1397
50°	3659	1743	950
55°	2786	1044	792
60°	1820	665	622
65°	761	500	500
70°	261	357	388
75°	213	259	299
80°	128	189	257
85°	121	121	256

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 4314 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	56.4	7.2
10°-20°	147.5	18.7
20°-30°	189.2	24.0
30°-40°	177.5	22.5
40°-50°	123.8	15.7
50°-60°	64.0	8.1
60°-70°	21.9	2.8
70°-80°	6.3	0.8
80°-90°	1.3	0.2
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°	393.1	49.9
0°-40°	570.6	72.4
0°-60°	758.5	96.3
0°-90°	787.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	787.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	610	610	610	610	610	
5°	607	606	596	599	597	57
15°	568	554	521	504	497	159
25°	481	451	402	375	364	221
35°	377	331	272	237	223	235
45°	260	213	150	104	84	200
55°	136	102	51	40	39	123
65°	27	24	18	17	18	32
75°	5	5	6	7	7	5
85°	1	1	1	1	2	1
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	610.4	610.4	610.4	610.4	610.4
2.5°	609.4	610.4	604.7	610.4	611.3
5°	606.6	605.7	596.2	599.0	597.2
7.5°	600.9	598.1	583.0	579.2	579.2
10°	592.4	586.8	564.1	557.5	554.6
12.5°	581.1	573.5	544.2	532.0	527.2
15°	567.9	553.7	520.6	503.6	497.0
17.5°	549.0	530.1	494.2	474.3	463.9
20°	529.1	505.5	465.8	442.2	431.8
22.5°	508.3	480.0	434.6	409.1	397.8
25°	480.9	450.7	402.5	375.1	363.8
27.5°	454.5	422.4	371.3	340.2	328.8
30°	429.0	391.2	337.3	307.1	292.9
32.5°	403.5	360.9	305.2	272.1	258.9
35°	377.0	330.7	272.1	237.2	223.0
37.5°	348.7	301.4	240.9	203.1	186.1
40°	319.4	270.2	209.8	167.2	151.2
42.5°	290.1	241.9	178.6	135.1	116.2
45°	259.8	212.6	150.2	103.9	84.1
47.5°	229.6	183.3	122.8	75.6	63.3
50°	200.3	155.9	95.4	55.7	52.0
52.5°	168.2	129.4	71.8	46.3	45.4
55°	136.1	102.0	51.0	39.7	38.7
57.5°	107.7	79.4	36.8	33.1	32.1
60°	77.5	56.7	28.3	27.4	26.5
62.5°	51.0	38.7	22.7	21.7	21.7
65°	27.4	23.6	18.0	17.0	18.0
67.5°	11.3	13.2	13.2	14.2	14.2
70°	7.6	8.5	10.4	11.3	11.3
72.5°	5.7	6.6	7.6	8.5	8.5
75°	4.7	4.7	5.7	6.6	6.6
77.5°	2.8	3.8	3.8	4.7	5.7
80°	1.9	2.8	2.8	3.8	3.8
82.5°	0.9	1.9	1.9	2.8	2.8
85°	0.9	0.9	0.9	0.9	1.9
87.5°	0.0	0.0	0.0	0.0	0.9
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	13.18	14.44	13.54	14.75	15.06	6.69	7.95	7.05	8.26	8.57
	3H	13.13	14.24	13.51	14.57	14.94	7.46	8.57	7.84	8.90	9.26
	4H	13.08	14.11	13.48	14.46	14.84	7.66	8.69	8.06	9.04	9.43
	6H	13.01	13.95	13.42	14.32	14.72	7.81	8.75	8.22	9.12	9.51
	8H	12.96	13.86	13.40	14.25	14.65	7.84	8.73	8.27	9.12	9.53
	12H	12.92	13.77	13.35	14.16	14.59	7.86	8.71	8.29	9.09	9.52
4H	2H	13.02	14.05	13.43	14.41	14.79	6.94	7.97	7.35	8.32	8.71
	3H	13.01	13.84	13.42	14.25	14.65	7.85	8.68	8.26	9.09	9.49
	4H	12.96	13.70	13.39	14.12	14.56	8.12	8.86	8.56	9.28	9.73
	6H	12.90	13.54	13.36	13.99	14.45	8.34	8.98	8.80	9.42	9.89
	8H	12.85	13.44	13.32	13.89	14.36	8.40	8.99	8.87	9.44	9.91
	12H	12.80	13.32	13.29	13.81	14.28	8.43	8.96	8.92	9.44	9.92
8H	4H	12.84	13.44	13.32	13.89	14.36	8.10	8.70	8.58	9.15	9.62
	6H	12.78	13.27	13.29	13.76	14.25	8.37	8.86	8.88	9.36	9.84
	8H	12.73	13.17	13.25	13.68	14.18	8.48	8.91	9.00	9.43	9.92
	12H	12.69	13.08	13.21	13.57	14.15	8.55	8.93	9.07	9.43	10.00
12H	4H	12.80	13.32	13.29	13.81	14.28	8.07	8.59	8.55	9.07	9.55
	6H	12.72	13.16	13.25	13.68	14.17	8.34	8.77	8.86	9.29	9.78
	8H	12.69	13.08	13.21	13.57	14.15	8.47	8.86	8.99	9.35	9.93