

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: P1059484

Luminaire Tested: S123RDR-H1000D950-X4F0-XX-UDD-SVL-B

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1059484
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-H1000D950-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: 5000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

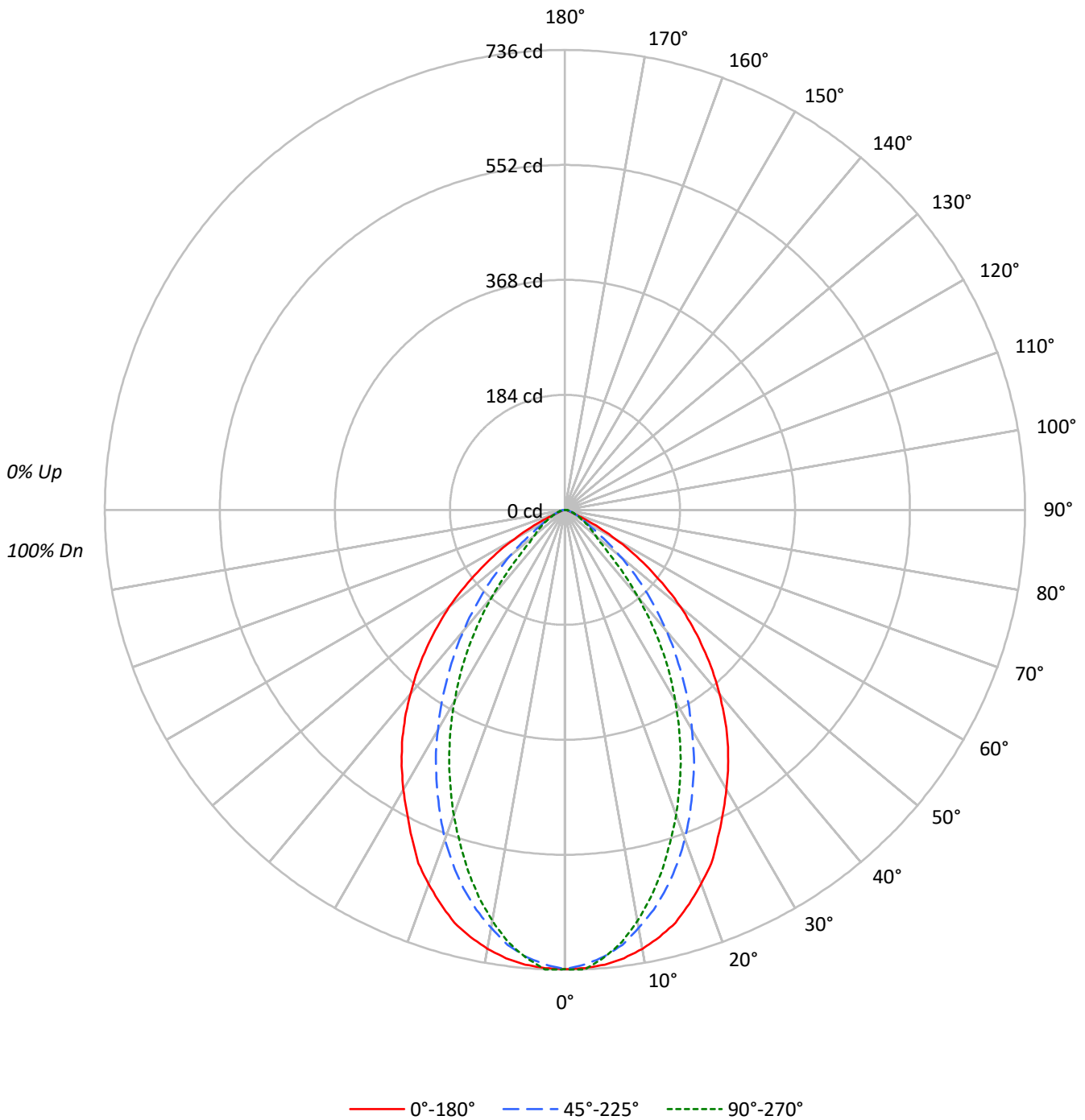
Lumens per Lamp: N/A
Luminaire Lumens: 948.9 lumens
Efficiency: N/A
Efficacy: 30.4 lumens/watt
Spacing Criteria (0/90/45): 1.08 / 0.85 / 0.98
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')
CIE Type: Direct

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	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	112	109	106	103	110	107	104	102	103	100	98	99	97	95	95	94	93	91
2	105	99	94	90	103	97	93	89	94	90	87	91	88	85	88	86	83	82
3	98	90	84	80	96	89	83	79	86	82	78	84	80	76	81	78	75	73
4	92	83	76	71	90	82	75	70	79	74	70	77	73	69	75	71	68	66
5	86	76	69	64	84	75	68	63	73	67	63	71	66	62	70	65	62	60
6	81	70	63	58	79	69	62	58	68	62	57	66	61	57	65	60	56	55
7	76	65	58	53	74	64	57	53	63	57	52	61	56	52	60	55	52	50
8	71	60	53	48	70	60	53	48	58	52	48	57	52	48	56	51	48	46
9	67	56	49	45	66	56	49	44	55	48	44	54	48	44	53	48	44	42
10	64	52	46	41	63	52	46	41	51	45	41	50	45	41	49	44	41	39

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	8632	8632	8632
5°	8611	8463	8476
10°	8506	8100	7964
15°	8314	7622	7276
20°	7962	7010	6498
25°	7504	6280	5676
30°	7005	5508	4782
35°	6508	4698	3849
40°	5895	3872	2791
45°	5196	3004	1682
50°	4406	2099	1144
55°	3355	1257	956
60°	2191	801	749
65°	917	600	600
70°	312	429	470
75°	259	309	363
80°	156	230	311
85°	148	148	310

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 5196 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	67.9	7.2
10°-20°	177.7	18.7
20°-30°	227.8	24.0
30°-40°	213.8	22.5
40°-50°	149.1	15.7
50°-60°	77.1	8.1
60°-70°	26.4	2.8
70°-80°	7.5	0.8
80°-90°	1.6	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°	473.4	49.9
0°-40°	687.2	72.4
0°-60°	913.5	96.3
0°-90°	948.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	948.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	735	735	735	735	735	
5°	730	729	718	721	719	69
15°	684	667	627	606	598	192
25°	579	543	485	452	438	266
35°	454	398	328	286	268	283
45°	313	256	181	125	101	241
55°	164	123	61	48	47	148
65°	33	28	22	20	22	39
75°	6	6	7	8	8	6
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°	735.1	735.1	735.1	735.1	735.1
2.5°	733.9	735.1	728.2	735.1	736.2
5°	730.5	729.4	718.0	721.4	719.1
7.5°	723.7	720.3	702.1	697.5	697.5
10°	713.4	706.6	679.3	671.3	667.9
12.5°	699.8	690.7	655.4	640.6	634.9
15°	683.9	666.8	627.0	606.5	598.5
17.5°	661.1	638.3	595.1	571.2	558.7
20°	637.2	608.8	561.0	532.5	520.0
22.5°	612.2	578.0	523.4	492.7	479.0
25°	579.2	542.8	484.7	451.7	438.1
27.5°	547.3	508.6	447.2	409.6	396.0
30°	516.6	471.1	406.2	369.8	352.7
32.5°	485.9	434.7	367.5	327.7	311.8
35°	454.0	398.3	327.7	285.6	268.5
37.5°	419.9	363.0	290.2	244.6	224.2
40°	384.6	325.4	252.6	201.4	182.1
42.5°	349.3	291.3	215.1	162.7	140.0
45°	312.9	256.0	180.9	125.2	101.3
47.5°	276.5	220.7	147.9	91.0	76.2
50°	241.2	187.7	114.9	67.1	62.6
52.5°	202.5	155.9	86.5	55.8	54.6
55°	163.9	122.9	61.4	47.8	46.7
57.5°	129.7	95.6	44.4	39.8	38.7
60°	93.3	68.3	34.1	33.0	31.9
62.5°	61.4	46.7	27.3	26.2	26.2
65°	33.0	28.4	21.6	20.5	21.6
67.5°	13.7	15.9	15.9	17.1	17.1
70°	9.1	10.2	12.5	13.7	13.7
72.5°	6.8	8.0	9.1	10.2	10.2
75°	5.7	5.7	6.8	8.0	8.0
77.5°	3.4	4.6	4.6	5.7	6.8
80°	2.3	3.4	3.4	4.6	4.6
82.5°	1.1	2.3	2.3	3.4	3.4
85°	1.1	1.1	1.1	1.1	2.3
87.5°	0.0	0.0	0.0	0.0	1.1
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	13.82	15.08	14.19	15.39	15.71	7.32	8.58	7.69	8.90	9.21
	3H	13.77	14.88	14.15	15.21	15.58	8.10	9.21	8.48	9.54	9.91
	4H	13.72	14.75	14.13	15.10	15.49	8.31	9.34	8.71	9.69	10.07
	6H	13.65	14.60	14.07	14.97	15.36	8.45	9.39	8.87	9.76	10.16
	8H	13.61	14.50	14.04	14.89	15.30	8.49	9.38	8.92	9.77	10.18
	12H	13.57	14.42	14.00	14.80	15.23	8.50	9.36	8.94	9.74	10.17
4H	2H	13.67	14.70	14.07	15.05	15.43	7.58	8.61	7.98	8.96	9.35
	3H	13.65	14.49	14.07	14.89	15.30	8.49	9.33	8.91	9.73	10.14
	4H	13.60	14.34	14.04	14.76	15.21	8.77	9.51	9.20	9.93	10.37
	6H	13.54	14.18	14.01	14.63	15.10	8.98	9.62	9.45	10.07	10.54
	8H	13.49	14.09	13.96	14.54	15.01	9.05	9.64	9.52	10.09	10.56
	12H	13.45	13.97	13.93	14.45	14.93	9.08	9.61	9.57	10.09	10.57
8H	4H	13.49	14.08	13.96	14.53	15.00	8.75	9.34	9.22	9.79	10.27
	6H	13.43	13.91	13.93	14.41	14.89	9.02	9.51	9.53	10.00	10.49
	8H	13.38	13.81	13.90	14.33	14.82	9.13	9.56	9.65	10.08	10.57
	12H	13.34	13.72	13.85	14.22	14.79	9.20	9.59	9.72	10.08	10.65
12H	4H	13.44	13.97	13.93	14.45	14.93	8.71	9.24	9.20	9.72	10.20
	6H	13.37	13.80	13.89	14.32	14.81	8.98	9.42	9.51	9.94	10.43
	8H	13.34	13.72	13.86	14.22	14.79	9.12	9.51	9.64	10.00	10.58