

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: P1059487

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

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1059487
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-H1000D950-X4F0-XX-UDD-WVL-B
Description: DEFINE 3 BLACK REGRESSED DIRECT RECESSED HOUSING WITH WHITE STRAIGHT BLADE LOUVER WITH DIFFUSER
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 5000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

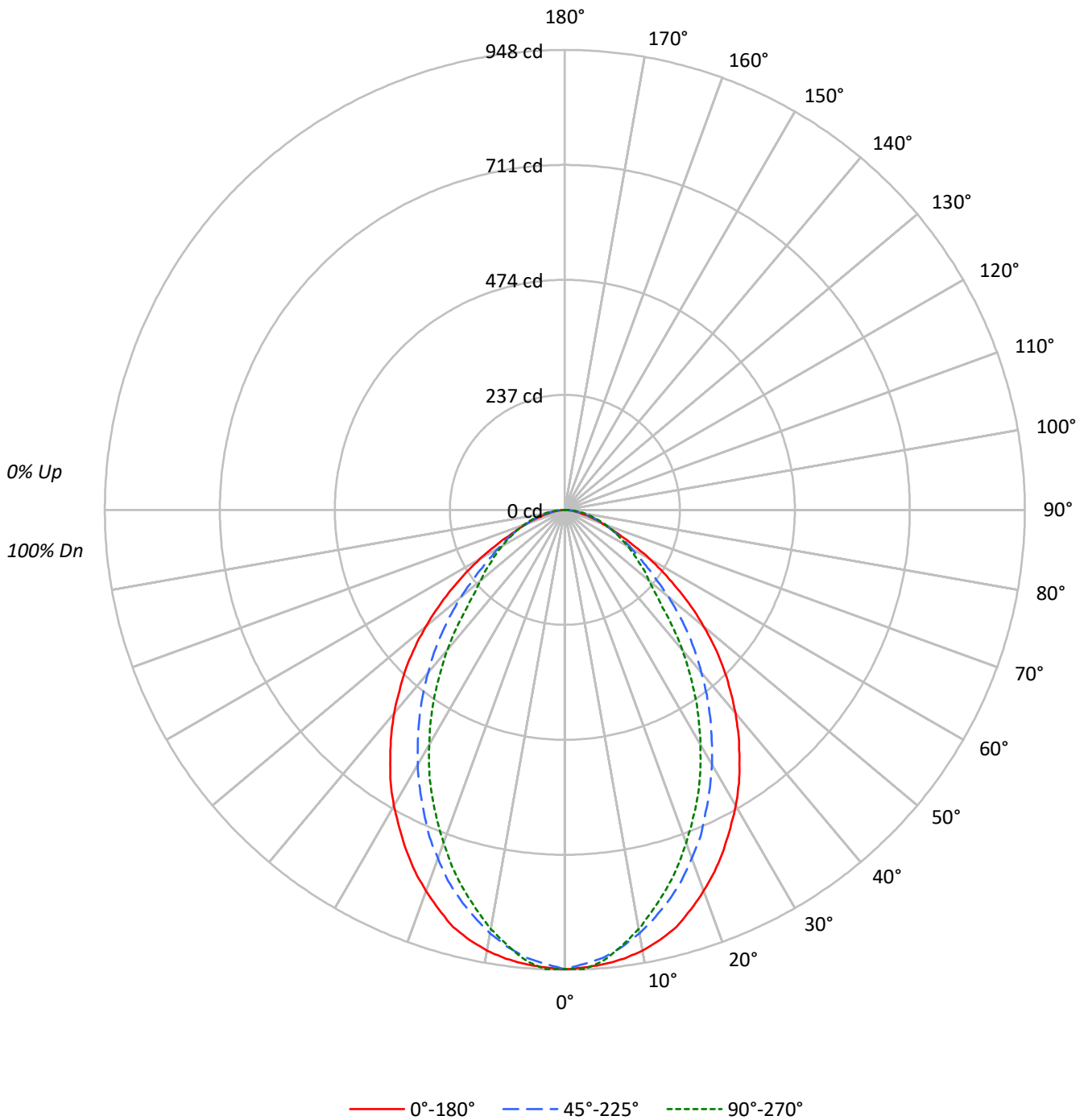
Lumens per Lamp: N/A
Luminaire Lumens: 1655.8 lumens
Efficiency: N/A
Efficacy: 53.1 lumens/watt
Spacing Criteria (0/90/45): 1.12 / 0.95 / 1.09
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 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	111	107	103	100	108	104	101	98	100	98	95	96	94	92	93	91	89	88			88	
2	102	95	89	84	100	93	88	83	90	85	81	87	83	80	84	81	78	76			76	
3	94	85	78	73	92	84	77	72	81	75	71	78	73	69	76	72	68	66			66	
4	87	77	69	63	85	76	68	63	73	67	62	71	66	61	69	64	60	58			58	
5	81	70	62	56	79	69	61	56	67	60	55	65	59	54	63	58	54	52			52	
6	76	64	56	50	74	63	55	50	61	54	49	59	53	49	58	53	48	47			47	
7	71	58	50	45	69	58	50	45	56	49	44	55	49	44	53	48	44	42			42	
8	66	54	46	41	65	53	46	41	52	45	40	51	45	40	50	44	40	38			38	
9	62	50	42	37	61	49	42	37	48	41	37	47	41	37	46	41	37	35			35	
10	58	46	39	34	57	46	39	34	45	38	34	44	38	34	43	38	34	32			32	

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	11117	11117	11117
5°	11079	10917	10985
10°	11003	10569	10461
15°	10817	10112	9835
20°	10450	9554	9128
25°	10024	8905	8403
30°	9550	8224	7575
35°	8988	7487	6704
40°	8389	6715	5773
45°	7690	5933	4743
50°	6818	5093	4116
55°	5800	4262	3773
60°	4730	3715	3502
65°	3604	3287	3256
70°	2812	2929	3049
75°	2273	2631	2840
80°	1691	2157	2617
85°	916	1374	2304

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 7690 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	87.9	5.3
10°-20°	236.4	14.3
20°-30°	321.4	19.4
30°-40°	333.2	20.1
40°-50°	281.0	17.0
50°-60°	199.5	12.0
60°-70°	121.9	7.4
70°-80°	60.7	3.7
80°-90°	13.8	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°	645.7	39.0
0°-40°	978.9	59.1
0°-60°	1459.4	88.1
0°-90°	1655.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1655.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	947	947	947	947	947	
5°	940	940	926	932	932	89
15°	890	873	832	817	809	250
25°	774	740	687	662	649	356
35°	627	579	522	486	468	392
45°	463	414	357	308	286	356
55°	283	254	208	190	184	254
65°	130	125	118	118	117	132
75°	50	54	58	60	63	54
85°	7	8	10	15	17	10
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	946.7	946.7	946.7	946.7	946.7
2.5°	944.4	945.6	936.5	946.7	947.8
5°	939.9	939.9	926.2	931.9	931.9
7.5°	933.0	930.8	908.0	908.0	905.7
10°	922.8	916.0	886.4	880.7	877.3
12.5°	908.0	896.6	860.2	850.0	843.2
15°	889.8	872.7	831.8	817.0	809.0
17.5°	863.6	846.6	801.1	780.6	771.5
20°	836.3	811.3	764.6	744.2	730.5
22.5°	806.7	774.9	729.4	704.3	689.5
25°	773.7	739.6	687.3	662.2	648.6
27.5°	738.5	700.9	647.4	619.0	605.3
30°	704.3	661.1	606.5	574.6	558.7
32.5°	667.9	619.0	563.2	530.2	514.3
35°	627.0	579.2	522.3	485.9	467.7
37.5°	588.3	539.3	480.2	441.5	421.0
40°	547.3	498.4	438.1	398.3	376.6
42.5°	504.1	457.4	398.3	351.6	331.1
45°	463.1	414.2	357.3	308.4	285.6
47.5°	418.7	373.2	317.5	267.4	251.5
50°	373.2	331.1	278.8	233.3	225.3
52.5°	328.8	293.6	240.1	210.5	207.1
55°	283.3	253.7	208.2	190.0	184.3
57.5°	241.2	219.6	178.6	169.5	167.3
60°	201.4	183.2	158.2	152.5	149.1
62.5°	162.7	152.5	137.7	135.4	133.1
65°	129.7	125.2	118.3	118.3	117.2
67.5°	102.4	102.4	101.3	103.5	102.4
70°	81.9	83.1	85.3	87.6	88.8
72.5°	64.9	68.3	70.5	74.0	75.1
75°	50.1	53.5	58.0	60.3	62.6
77.5°	36.4	39.8	44.4	47.8	50.1
80°	25.0	27.3	31.9	36.4	38.7
82.5°	15.9	17.1	20.5	25.0	27.3
85°	6.8	8.0	10.2	14.8	17.1
87.5°	0.0	0.0	1.1	4.6	8.0
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	17.18	18.63	17.54	18.94	19.25	15.27	16.72	15.64	17.04	17.35
	3H	18.07	19.37	18.45	19.70	20.06	16.85	18.14	17.22	18.47	18.83
	4H	18.36	19.57	18.76	19.92	20.30	17.44	18.65	17.84	19.00	19.38
	6H	18.51	19.62	18.92	19.99	20.38	17.89	19.01	18.31	19.38	19.77
	8H	18.53	19.59	18.96	19.98	20.38	18.04	19.10	18.47	19.49	19.90
	12H	18.52	19.54	18.95	19.92	20.35	18.14	19.16	18.57	19.54	19.97
4H	2H	17.42	18.63	17.82	18.98	19.36	15.81	17.03	16.21	17.38	17.76
	3H	18.53	19.53	18.95	19.94	20.34	17.59	18.59	18.00	18.99	19.39
	4H	18.92	19.82	19.36	20.24	20.68	18.30	19.20	18.73	19.62	20.06
	6H	19.17	19.94	19.62	20.39	20.85	18.87	19.65	19.33	20.09	20.56
	8H	19.21	19.94	19.67	20.38	20.85	19.06	19.79	19.53	20.24	20.70
	12H	19.22	19.86	19.70	20.34	20.82	19.20	19.85	19.69	20.33	20.80
8H	4H	19.08	19.81	19.55	20.25	20.72	18.51	19.24	18.97	19.68	20.15
	6H	19.39	19.99	19.89	20.49	20.96	19.19	19.78	19.68	20.28	20.76
	8H	19.47	20.01	19.99	20.52	21.01	19.44	19.98	19.96	20.49	20.98
	12H	19.51	19.98	20.02	20.47	21.04	19.65	20.13	20.16	20.62	21.19
12H	4H	19.09	19.73	19.57	20.21	20.69	18.51	19.15	18.99	19.63	20.11
	6H	19.41	19.95	19.93	20.46	20.95	19.19	19.73	19.71	20.24	20.73
	8H	19.52	20.00	20.03	20.49	21.06	19.50	19.97	20.01	20.46	21.03