

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: P1059469

Luminaire Tested: S123RDR-H1000D935-X4F0-XX-UDD-WVL-B

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1059469
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-H1000D935-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: 3500K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

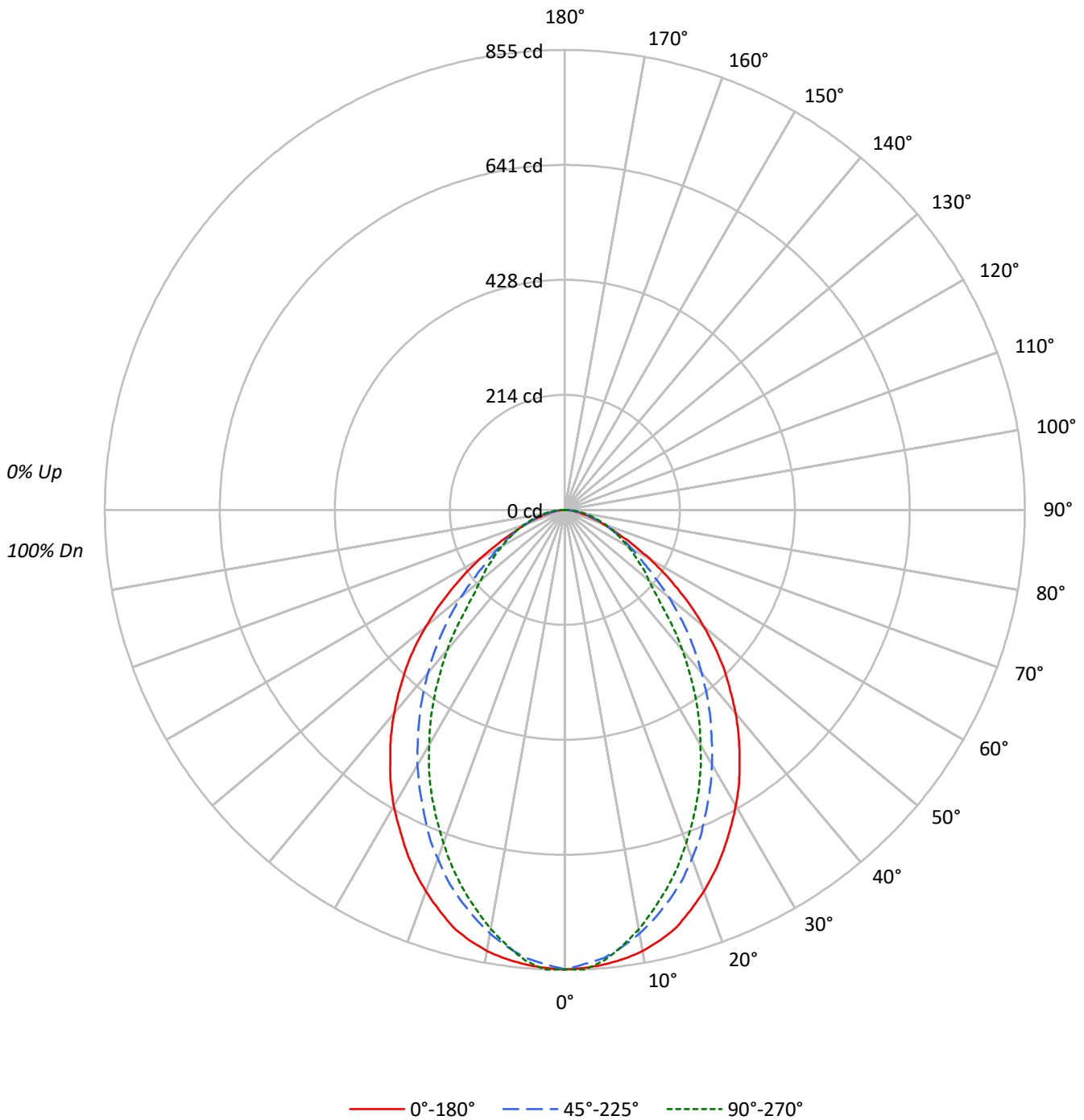
Lumens per Lamp: N/A
Luminaire Lumens: 1494.4 lumens
Efficiency: N/A
Efficacy: 47.9 lumens/watt
Spacing Criteria (0/90/45): 1.12 / 0.95 / 1.09
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')
CIE Type: Direct

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

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	10033	10033	10033
5°	9998	9853	9914
10°	9930	9539	9441
15°	9763	9126	8876
20°	9432	8624	8239
25°	9047	8037	7585
30°	8619	7422	6836
35°	8111	6757	6051
40°	7572	6061	5210
45°	6941	5356	4281
50°	6153	4596	3714
55°	5235	3847	3407
60°	4270	3351	3159
65°	3254	2967	2940
70°	2537	2644	2750
75°	2051	2377	2563
80°	1528	1948	2360
85°	835	1240	2075

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 6941 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	79.3	5.3
10°-20°	213.4	14.3
20°-30°	290.1	19.4
30°-40°	300.7	20.1
40°-50°	253.6	17.0
50°-60°	180.0	12.0
60°-70°	110.0	7.4
70°-80°	54.8	3.7
80°-90°	12.4	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°	582.8	39.0
0°-40°	883.5	59.1
0°-60°	1317.2	88.1
0°-90°	1494.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1494.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	854	854	854	854	854	
5°	848	848	836	841	841	80
15°	803	788	751	737	730	225
25°	698	668	620	598	585	321
35°	566	523	471	438	422	354
45°	418	374	322	278	258	321
55°	256	229	188	172	166	230
65°	117	113	107	107	106	119
75°	45	48	52	54	56	49
85°	6	7	9	13	15	9
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	854.4	854.4	854.4	854.4	854.4
2.5°	852.4	853.4	845.2	854.4	855.4
5°	848.2	848.2	835.9	841.1	841.1
7.5°	842.1	840.0	819.5	819.5	817.4
10°	832.8	826.7	800.0	794.8	791.8
12.5°	819.5	809.2	776.4	767.1	761.0
15°	803.1	787.7	750.7	737.3	730.1
17.5°	779.4	764.0	723.0	704.5	696.3
20°	754.8	732.2	690.1	671.6	659.3
22.5°	728.1	699.3	658.3	635.7	622.3
25°	698.3	667.5	620.3	597.7	585.4
27.5°	666.5	632.6	584.3	558.7	546.3
30°	635.7	596.6	547.4	518.6	504.2
32.5°	602.8	558.7	508.3	478.6	464.2
35°	565.8	522.7	471.4	438.5	422.1
37.5°	530.9	486.8	433.4	398.4	380.0
40°	494.0	449.8	395.4	359.4	339.9
42.5°	454.9	412.8	359.4	317.3	298.8
45°	418.0	373.8	322.5	278.3	257.8
47.5°	377.9	336.8	286.5	241.3	227.0
50°	336.8	298.8	251.6	210.5	203.3
52.5°	296.8	264.9	216.7	190.0	186.9
55°	255.7	229.0	187.9	171.5	166.4
57.5°	217.7	198.2	161.2	153.0	151.0
60°	181.8	165.3	142.7	137.6	134.5
62.5°	146.9	137.6	124.3	122.2	120.2
65°	117.1	113.0	106.8	106.8	105.8
67.5°	92.4	92.4	91.4	93.5	92.4
70°	73.9	75.0	77.0	79.1	80.1
72.5°	58.5	61.6	63.7	66.8	67.8
75°	45.2	48.3	52.4	54.4	56.5
77.5°	32.9	35.9	40.1	43.1	45.2
80°	22.6	24.6	28.8	32.9	34.9
82.5°	14.4	15.4	18.5	22.6	24.6
85°	6.2	7.2	9.2	13.4	15.4
87.5°	0.0	0.0	1.0	4.1	7.2
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	16.82	18.27	17.19	18.58	18.90	14.92	16.37	15.28	16.68	17.00
	3H	17.72	19.01	18.10	19.34	19.70	16.49	17.79	16.87	18.11	18.48
	4H	18.00	19.21	18.40	19.56	19.94	17.09	18.30	17.49	18.65	19.03
	6H	18.15	19.27	18.56	19.64	20.03	17.54	18.65	17.95	19.02	19.42
	8H	18.17	19.24	18.60	19.63	20.03	17.69	18.75	18.11	19.14	19.54
	12H	18.17	19.18	18.60	19.57	19.99	17.78	18.80	18.22	19.18	19.61
4H	2H	17.06	18.28	17.46	18.63	19.01	15.46	16.67	15.86	17.02	17.40
	3H	18.18	19.18	18.59	19.58	19.98	17.23	18.23	17.64	18.63	19.04
	4H	18.57	19.47	19.00	19.88	20.32	17.94	18.84	18.38	19.26	19.70
	6H	18.81	19.59	19.27	20.03	20.49	18.52	19.29	18.98	19.74	20.20
	8H	18.85	19.58	19.32	20.02	20.49	18.71	19.43	19.17	19.88	20.35
	12H	18.86	19.51	19.34	19.99	20.46	18.85	19.49	19.33	19.97	20.45
8H	4H	18.73	19.45	19.19	19.90	20.37	18.15	18.88	18.62	19.33	19.80
	6H	19.04	19.64	19.54	20.13	20.61	18.83	19.43	19.33	19.92	20.40
	8H	19.11	19.65	19.63	20.16	20.65	19.09	19.62	19.60	20.14	20.63
	12H	19.15	19.62	19.66	20.12	20.68	19.30	19.77	19.81	20.26	20.83
12H	4H	18.73	19.38	19.21	19.86	20.33	18.15	18.80	18.64	19.28	19.75
	6H	19.05	19.59	19.57	20.10	20.59	18.84	19.38	19.36	19.89	20.38
	8H	19.17	19.64	19.68	20.13	20.70	19.14	19.62	19.65	20.11	20.68