

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: P1059173

Luminaire Tested: S123RDRP-S340D830-X4F0-XX-UDD-WVL-S

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2024
Report Number: P1059173
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-67)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S123RDRP-S340D830-X4F0-XX-UDD-WVL-S
Description: DEFINE 3 SILVER REGRESSED DIRECT RECESSED HOUSING WITH WHITE STRAIGHT BLADE
LOUVER WITH DIFFUSER
CORE LIGHT ENGINE
Light Source: 3000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

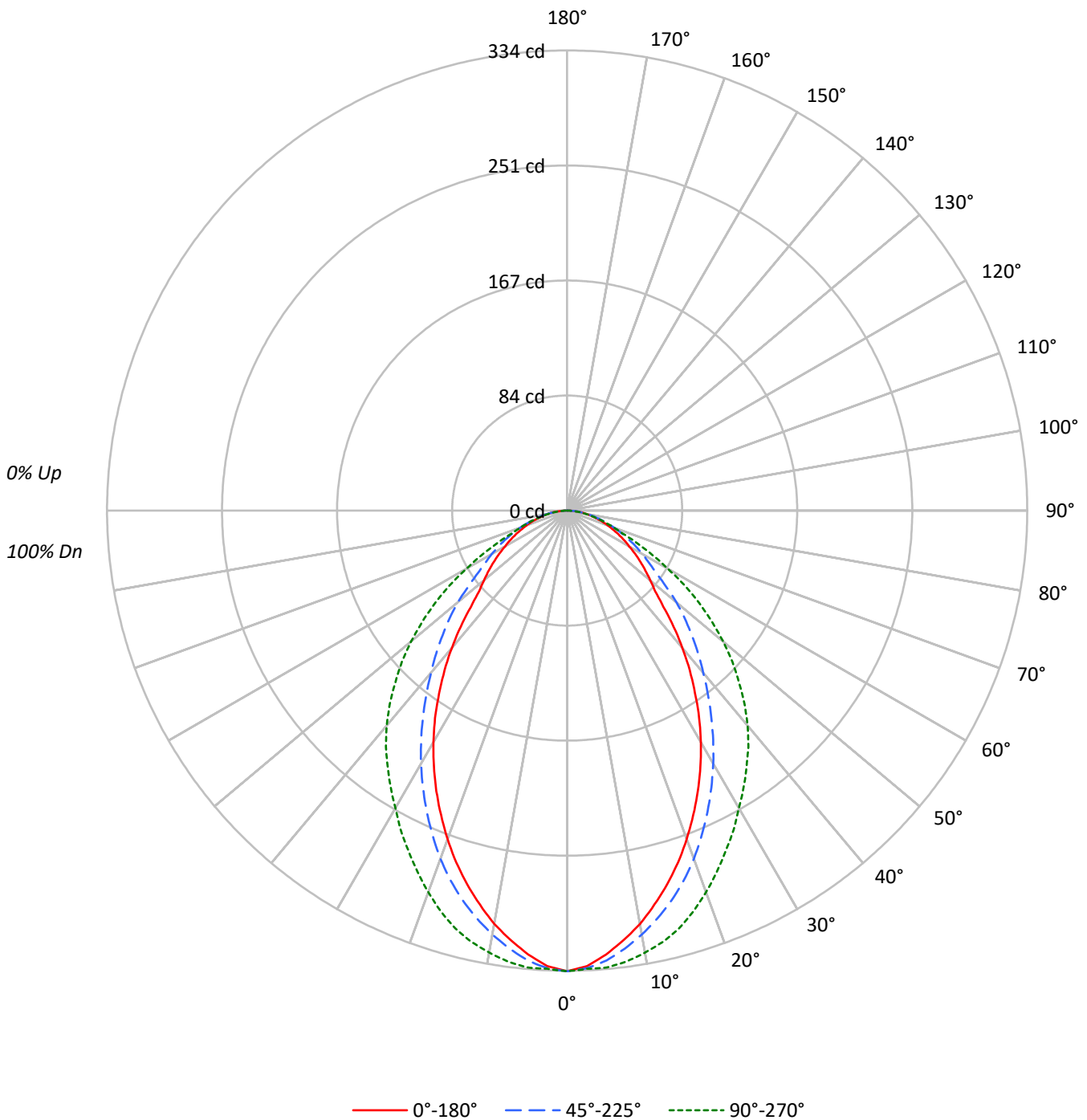
Lumens per Lamp: N/A
Luminaire Lumens: 604.1 lumens
Efficiency: N/A
Efficacy: 48.3 lumens/watt
Spacing Criteria (0/90/45): 0.93 / 1.12 / 1.1
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 12.5
Input Voltage (V): 120
Input Current (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	110	106	102	99	108	104	100	97	100	97	94	96	93	91	92	90	89	87
2	102	94	88	83	99	92	87	82	89	84	80	86	82	78	83	80	77	75
3	94	84	77	71	91	83	76	71	80	74	69	77	72	68	75	71	67	65
4	87	76	68	62	84	74	67	61	72	66	61	70	64	60	68	63	59	57
5	80	69	60	54	78	68	60	54	66	59	54	64	58	53	62	57	53	51
6	75	63	54	48	73	62	54	48	60	53	48	58	52	47	57	51	47	45
7	70	57	49	44	68	56	49	43	55	48	43	54	47	43	52	47	43	41
8	65	53	45	39	64	52	45	39	51	44	39	50	43	39	48	43	39	37
9	61	49	41	36	60	48	41	36	47	40	36	46	40	36	45	39	35	34
10	58	45	38	33	56	45	38	33	44	37	33	43	37	33	42	37	33	31

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3927	3927	3927
5°	3812	3864	3924
10°	3632	3726	3885
15°	3412	3561	3817
20°	3170	3360	3684
25°	2910	3124	3531
30°	2632	2876	3380
35°	2321	2613	3254
40°	1996	2356	3126
45°	1641	2122	2929
50°	1440	1891	2700
55°	1333	1613	2391
60°	1224	1482	1980
65°	1145	1361	1559
70°	1078	1239	1239
75°	1012	1139	1066
80°	953	1035	899
85°	903	997	687

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 2929 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	30.9	5.1
10°-20°	82.9	13.7
20°-30°	112.4	18.6
30°-40°	117.5	19.5
40°-50°	101.9	16.9
50°-60°	75.8	12.5
60°-70°	48.7	8.1
70°-80°	26.1	4.3
80°-90°	7.9	1.3
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°	226.2	37.4
0°-40°	343.7	56.9
0°-60°	521.5	86.3
0°-90°	604.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	604.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	334	334	334	334	334	
5°	323	329	328	330	333	30
15°	281	287	293	305	314	79
25°	225	232	241	257	272	103
35°	162	170	182	205	227	101
45°	99	106	128	155	176	78
55°	65	67	79	101	117	58
65°	41	45	49	52	56	41
75°	22	26	25	24	24	24
85°	7	8	7	6	5	8
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	334.4	334.4	334.4	334.4	334.4
2.5°	330.9	335.6	332.5	332.5	332.9
5°	323.4	328.9	327.8	330.1	332.9
7.5°	314.4	320.3	320.7	326.2	330.1
10°	304.6	310.5	312.5	320.3	325.8
12.5°	292.9	299.5	303.1	312.9	320.7
15°	280.7	287.4	292.9	304.6	314.0
17.5°	267.8	274.4	281.5	294.8	305.0
20°	253.7	260.7	268.9	282.3	294.8
22.5°	239.2	246.6	255.2	269.7	283.8
25°	224.6	231.7	241.1	257.2	272.5
27.5°	209.4	216.8	226.6	244.2	261.5
30°	194.1	201.5	212.1	230.9	249.3
32.5°	178.4	185.8	197.2	218.4	238.4
35°	161.9	169.8	182.3	205.4	227.0
37.5°	146.2	153.7	167.8	193.3	216.0
40°	130.2	138.0	153.7	181.1	203.9
42.5°	114.5	122.3	140.7	168.2	190.5
45°	98.8	106.2	127.8	155.3	176.4
47.5°	86.6	92.1	115.7	141.5	162.7
50°	78.8	80.8	103.5	128.2	147.8
52.5°	71.7	73.3	90.2	114.9	132.5
55°	65.1	66.6	78.8	101.1	116.8
57.5°	58.4	60.4	70.2	87.0	101.1
60°	52.1	54.5	63.1	74.5	84.3
62.5°	46.7	49.4	56.1	63.1	69.8
65°	41.2	44.7	49.0	52.1	56.1
67.5°	36.1	40.0	42.3	43.1	43.5
70°	31.4	35.3	36.1	36.1	36.1
72.5°	26.7	31.0	30.2	29.8	29.4
75°	22.3	25.9	25.1	23.9	23.5
77.5°	18.0	21.2	20.0	19.2	18.0
80°	14.1	16.5	15.3	14.5	13.3
82.5°	10.6	12.2	11.0	10.2	9.0
85°	6.7	8.2	7.4	6.3	5.1
87.5°	3.5	4.7	3.9	3.5	2.0
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	11.54	13.02	11.90	13.34	13.65	14.29	15.77	14.66	16.09	16.40
	3H	13.25	14.58	13.63	14.91	15.27	15.31	16.64	15.69	16.97	17.33
	4H	13.91	15.16	14.31	15.51	15.89	15.68	16.92	16.08	17.27	17.65
	6H	14.41	15.56	14.82	15.93	16.32	15.93	17.08	16.34	17.45	17.84
	8H	14.59	15.68	15.02	16.07	16.48	16.00	17.10	16.43	17.49	17.89
	12H	14.72	15.76	15.15	16.15	16.58	16.04	17.09	16.47	17.47	17.90
4H	2H	12.32	13.56	12.72	13.91	14.29	14.56	15.81	14.96	16.16	16.54
	3H	14.24	15.28	14.65	15.68	16.08	15.82	16.85	16.23	17.25	17.65
	4H	15.05	15.98	15.49	16.40	16.84	16.31	17.23	16.74	17.65	18.09
	6H	15.69	16.50	16.15	16.94	17.40	16.68	17.49	17.14	17.94	18.40
	8H	15.92	16.68	16.39	17.12	17.59	16.80	17.55	17.26	18.00	18.46
	12H	16.10	16.77	16.58	17.25	17.72	16.87	17.54	17.35	18.02	18.49
8H	4H	15.37	16.13	15.84	16.57	17.04	16.50	17.25	16.96	17.70	18.16
	6H	16.17	16.79	16.66	17.28	17.76	16.98	17.61	17.48	18.10	18.58
	8H	16.49	17.05	17.01	17.56	18.05	17.16	17.72	17.67	18.23	18.72
	12H	16.77	17.27	17.28	17.76	18.33	17.29	17.79	17.80	18.28	18.85
12H	4H	15.40	16.07	15.88	16.55	17.02	16.51	17.19	16.99	17.67	18.14
	6H	16.22	16.78	16.73	17.29	17.78	17.02	17.58	17.54	18.09	18.58
	8H	16.61	17.11	17.12	17.60	18.17	17.25	17.75	17.76	18.24	18.80