

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: P1059249

Luminaire Tested: S123RDRP-S560D830-X4F0-XX-UDD-BVL-W

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2024
Report Number: P1059249
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-66)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S123RDRP-S560D830-X4F0-XX-UDD-BVL-W
Description: DEFINE 3 WHITE REGRESSED DIRECT RECESSED HOUSING WITH BLACK STRAIGHT BLADE
LOUVER WITH DIFFUSER
CORE LIGHT ENGINE
Light Source: 3000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

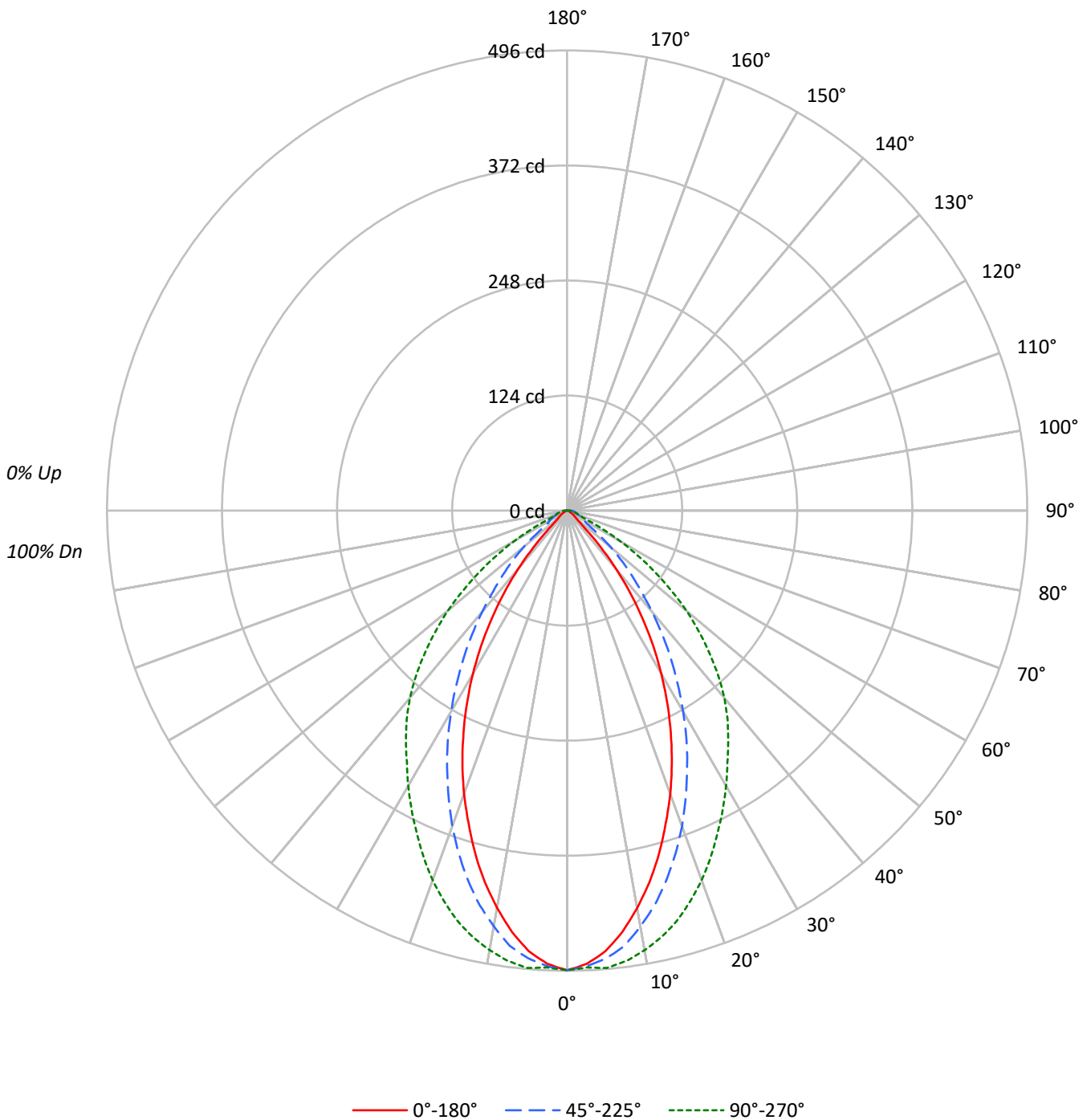
Lumens per Lamp: N/A
Luminaire Lumens: 594.9 lumens
Efficiency: N/A
Efficacy: 30.4 lumens/watt
Spacing Criteria (0/90/45): 0.79 / 1.06 / 0.94
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 19.6
Input Voltage (V): 120
Input Current (A_{in}): 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	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	108	105	102	109	106	103	101	102	100	98	98	96	95	95	93	92	90																												
2	105	99	94	90	102	97	92	88	94	90	86	91	87	85	88	85	83	81																												
3	98	90	84	79	96	89	83	79	86	81	77	83	79	76	81	78	75	73																												
4	92	83	76	71	90	81	75	70	79	74	70	77	72	69	75	71	68	66																												
5	86	76	69	64	84	75	69	64	73	67	63	71	66	62	70	65	62	60																												
6	81	70	63	58	79	69	63	58	68	62	57	66	61	57	65	60	57	55																												
7	76	65	58	53	75	65	58	53	63	57	53	62	56	52	61	56	52	50																												
8	72	61	54	49	70	60	53	49	59	53	49	58	52	48	57	52	48	47																												
9	68	57	50	45	67	56	50	45	55	49	45	54	49	45	53	48	45	43																												
10	64	53	46	42	63	53	46	42	52	46	42	51	45	42	50	45	42	40																												

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	5818	5818	5818
5°	5618	5710	5832
10°	5186	5426	5736
15°	4654	5018	5564
20°	4060	4524	5297
25°	3424	3965	4969
30°	2754	3390	4644
35°	2015	2791	4341
40°	1257	2175	4042
45°	475	1622	3600
50°	227	1118	3069
55°	174	612	2373
60°	122	519	1559
65°	92	453	650
70°	89	426	426
75°	118	445	445
80°	176	527	487
85°	350	876	701

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 3600 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	45.5	7.6
10°-20°	116.6	19.6
20°-30°	144.4	24.3
30°-40°	129.4	21.8
40°-50°	84.8	14.3
50°-60°	42.5	7.1
60°-70°	16.6	2.8
70°-80°	9.3	1.6
80°-90°	5.8	1.0
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°	306.5	51.5
0°-40°	435.9	73.3
0°-60°	563.2	94.7
0°-90°	594.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	594.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	496	496	496	496	496	
5°	477	484	484	490	495	44
15°	383	398	413	440	458	107
25°	264	281	306	350	384	121
35°	141	160	195	253	303	88
45°	29	46	98	167	217	27
55°	8	10	30	82	116	8
65°	3	10	16	22	23	3
75°	3	10	10	10	10	3
85°	3	6	6	6	5	2
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	495.5	495.5	495.5	495.5	495.5
2.5°	489.0	496.1	491.6	492.2	492.9
5°	476.6	484.4	484.4	489.6	494.8
7.5°	457.7	466.8	473.3	482.4	489.6
10°	434.9	446.0	455.1	471.4	481.1
12.5°	410.2	423.9	435.6	457.1	470.7
15°	382.8	398.5	412.8	440.1	457.7
17.5°	353.5	369.2	388.0	419.9	441.4
20°	324.9	340.5	362.0	397.8	423.9
22.5°	294.9	311.2	334.0	373.7	404.3
25°	264.3	280.6	306.0	349.6	383.5
27.5°	233.7	250.0	278.7	326.2	363.3
30°	203.1	219.4	250.0	300.8	342.5
32.5°	172.5	190.1	222.0	277.4	321.6
35°	140.6	159.5	194.7	253.3	302.8
37.5°	111.3	128.9	168.6	232.4	283.9
40°	82.0	100.9	141.9	212.3	263.7
42.5°	53.4	73.6	117.8	190.1	240.9
45°	28.6	46.2	97.7	167.3	216.8
47.5°	15.6	25.4	78.8	143.2	192.1
50°	12.4	14.3	61.2	122.4	168.0
52.5°	10.4	11.7	43.6	102.9	141.3
55°	8.5	10.4	29.9	82.0	115.9
57.5°	7.2	9.1	23.4	63.8	90.5
60°	5.2	7.8	22.1	46.9	66.4
62.5°	3.9	8.5	19.5	32.6	43.6
65°	3.3	9.8	16.3	21.5	23.4
67.5°	2.6	10.4	14.3	13.7	13.7
70°	2.6	9.8	12.4	11.7	12.4
72.5°	2.6	10.4	11.1	10.4	11.1
75°	2.6	9.8	9.8	9.8	9.8
77.5°	2.6	9.1	9.1	8.5	8.5
80°	2.6	7.8	7.8	7.8	7.2
82.5°	2.6	7.2	7.2	7.2	5.9
85°	2.6	6.5	6.5	6.5	5.2
87.5°	2.0	5.9	6.5	5.9	3.9
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	0.00	0.00	0.00	0.04	0.35	12.72	13.98	13.09	14.29	14.61
	3H	0.80	1.92	1.18	2.25	2.61	12.80	13.91	13.18	14.25	14.61
	4H	1.91	2.94	2.31	3.30	3.68	12.88	13.92	13.29	14.27	14.65
	6H	2.90	3.85	3.31	4.22	4.61	12.99	13.94	13.40	14.31	14.70
	8H	3.38	4.28	3.81	4.67	5.08	13.05	13.94	13.48	14.34	14.74
	12H	3.94	4.80	4.37	5.18	5.61	13.13	13.99	13.56	14.37	14.80
4H	2H	1.73	2.76	2.13	3.11	3.50	12.58	13.61	12.98	13.96	14.35
	3H	4.05	4.89	4.46	5.30	5.70	12.75	13.60	13.17	14.00	14.41
	4H	5.42	6.18	5.86	6.60	7.04	12.91	13.66	13.34	14.08	14.53
	6H	6.50	7.16	6.97	7.60	8.07	13.13	13.79	13.60	14.23	14.70
	8H	6.96	7.57	7.43	8.02	8.49	13.26	13.87	13.73	14.32	14.79
	12H	7.45	7.99	7.94	8.48	8.95	13.43	13.97	13.92	14.46	14.93
8H	4H	6.40	7.01	6.87	7.45	7.92	12.90	13.51	13.37	13.96	14.43
	6H	7.91	8.41	8.41	8.91	9.39	13.24	13.74	13.75	14.24	14.72
	8H	8.69	9.14	9.21	9.65	10.15	13.48	13.93	14.00	14.44	14.94
	12H	9.49	9.89	10.01	10.39	10.96	13.81	14.21	14.33	14.71	15.28
12H	4H	6.57	7.11	7.06	7.59	8.07	12.89	13.43	13.38	13.91	14.38
	6H	8.23	8.68	8.75	9.19	9.69	13.26	13.71	13.79	14.23	14.72
	8H	9.19	9.59	9.70	10.08	10.65	13.57	13.97	14.09	14.47	15.04