

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: P1059252

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

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2024
Report Number: P1059252
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-65)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S123RDRP-S560D830-X4F0-XX-UDD-SVL-W
Description: DEFINE 3 WHITE REGRESSED DIRECT RECESSED HOUSING WITH SILVER STRAIGHT BLADE LOUVER WITH DIFFUSER
CORE LIGHT ENGINE
Light Source: 3000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

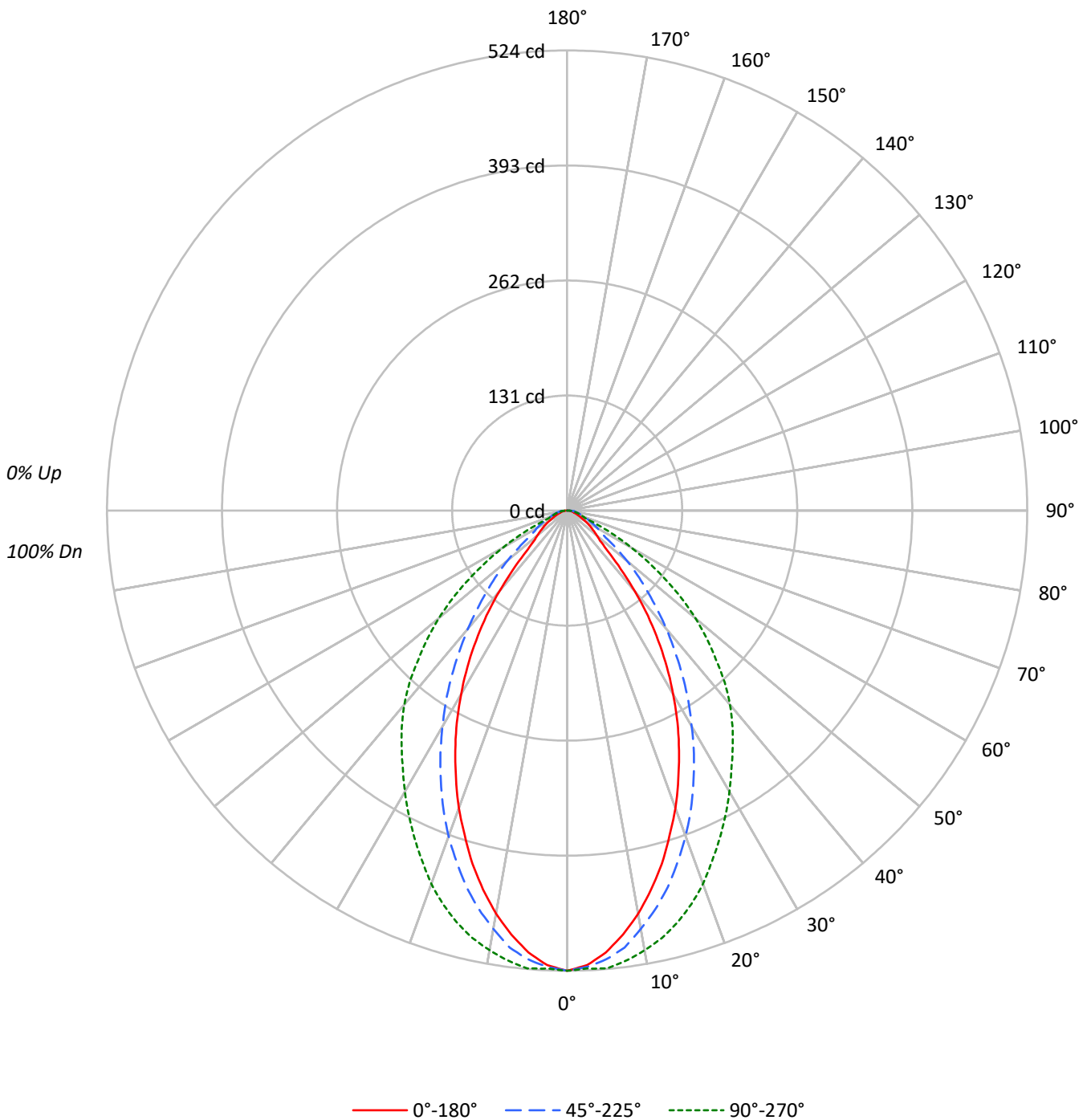
Lumens per Lamp: N/A
Luminaire Lumens: 703.4 lumens
Efficiency: N/A
Efficacy: 35.9 lumens/watt
Spacing Criteria (0/90/45): 0.83 / 1.08 / 0.98
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')
CIE Type: Direct

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	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	111	108	105	102	109	106	103	100	102	99	97	98	96	94	94	93	91	89
2	104	98	92	88	102	96	91	87	92	88	85	89	86	83	86	84	81	79
3	97	89	82	77	95	87	81	77	84	79	75	82	78	74	79	76	73	71
4	90	81	74	68	88	80	73	68	77	72	67	75	70	66	73	69	66	64
5	85	74	67	61	83	73	66	61	71	65	60	69	64	60	68	63	59	58
6	79	68	61	55	78	67	60	55	66	59	55	64	59	54	63	58	54	52
7	74	63	56	51	73	62	55	50	61	55	50	60	54	50	58	53	49	48
8	70	58	51	46	69	58	51	46	57	50	46	55	50	46	54	49	45	44
9	66	54	47	43	65	54	47	43	53	47	42	52	46	42	51	46	42	40
10	62	51	44	39	61	50	44	39	49	43	39	49	43	39	48	43	39	37

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	6153	6153	6153
5°	5954	6046	6168
10°	5558	5766	6062
15°	5064	5389	5903
20°	4506	4930	5653
25°	3905	4410	5330
30°	3274	3848	5013
35°	2595	3276	4712
40°	1836	2693	4421
45°	1081	2129	3977
50°	809	1617	3484
55°	680	1093	2799
60°	550	932	1987
65°	433	795	1050
70°	381	694	649
75°	354	649	622
80°	352	703	615
85°	445	1051	795

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 3977 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	48.2	6.9
10°-20°	125.3	17.8
20°-30°	159.6	22.7
30°-40°	150.1	21.3
40°-50°	108.1	15.4
50°-60°	62.4	8.9
60°-70°	28.5	4.1
70°-80°	14.3	2.0
80°-90°	6.8	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°	333.2	47.4
0°-40°	483.3	68.7
0°-60°	653.9	93.0
0°-90°	703.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	703.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	524	524	524	524	524	
5°	505	514	513	518	523	47
15°	417	432	443	468	486	116
25°	301	317	340	378	411	138
35°	181	197	228	281	329	112
45°	65	81	128	193	240	55
55°	33	34	53	102	137	30
65°	16	22	29	32	38	16
75°	8	15	14	14	14	8
85°	3	7	8	7	6	4
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	524.0	524.0	524.0	524.0	524.0
2.5°	518.1	524.6	520.1	520.7	522.0
5°	505.1	513.6	512.9	518.1	523.3
7.5°	486.9	496.7	501.9	509.7	516.8
10°	466.1	477.1	483.6	498.0	508.4
12.5°	442.0	456.3	464.8	483.6	498.6
15°	416.6	431.6	443.3	468.0	485.6
17.5°	387.9	404.2	419.2	448.5	470.0
20°	360.6	376.2	394.5	426.4	452.4
22.5°	330.7	347.6	368.4	402.3	431.6
25°	301.4	317.0	340.4	378.2	411.4
27.5°	272.1	287.7	312.4	354.1	390.6
30°	241.5	257.8	283.8	330.0	369.7
32.5°	211.5	227.2	256.5	306.6	348.2
35°	181.0	196.6	228.5	281.2	328.7
37.5°	151.0	167.3	201.1	260.4	309.2
40°	119.8	137.3	175.7	238.9	288.4
42.5°	90.5	109.4	150.4	216.8	265.6
45°	65.1	81.4	128.2	192.7	239.5
47.5°	50.8	59.2	108.1	167.9	215.5
50°	44.3	45.6	88.5	145.2	190.7
52.5°	38.4	39.7	69.6	123.7	164.7
55°	33.2	34.5	53.4	101.5	136.7
57.5°	28.0	29.9	44.3	80.7	110.0
60°	23.4	26.0	39.7	61.8	84.6
62.5°	18.9	23.4	33.8	45.6	60.5
65°	15.6	22.1	28.6	31.9	37.8
67.5°	13.0	20.2	24.1	22.8	22.1
70°	11.1	18.2	20.2	18.2	18.9
72.5°	9.1	16.9	16.9	15.6	15.6
75°	7.8	15.0	14.3	13.7	13.7
77.5°	6.5	13.0	12.4	11.7	11.1
80°	5.2	10.4	10.4	9.8	9.1
82.5°	4.6	8.5	8.5	8.5	7.2
85°	3.3	7.2	7.8	7.2	5.9
87.5°	2.6	6.5	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	6.28	7.59	6.64	7.91	8.22	13.64	14.96	14.01	15.28	15.59
	3H	7.67	8.84	8.05	9.17	9.53	13.88	15.05	14.25	15.38	15.74
	4H	8.22	9.31	8.62	9.66	10.05	13.99	15.08	14.39	15.43	15.82
	6H	8.65	9.66	9.07	10.03	10.42	14.11	15.11	14.52	15.48	15.87
	8H	8.83	9.78	9.26	10.17	10.58	14.16	15.11	14.59	15.50	15.90
	12H	8.99	9.90	9.43	10.28	10.71	14.22	15.13	14.65	15.51	15.94
4H	2H	7.37	8.47	7.78	8.82	9.20	13.60	14.69	14.01	15.04	15.43
	3H	9.04	9.93	9.45	10.34	10.74	13.96	14.86	14.38	15.26	15.66
	4H	9.85	10.65	10.29	11.07	11.51	14.16	14.96	14.60	15.38	15.82
	6H	10.49	11.18	10.95	11.62	12.09	14.39	15.08	14.85	15.53	15.99
	8H	10.72	11.37	11.19	11.82	12.29	14.49	15.14	14.96	15.59	16.06
	12H	10.94	11.51	11.43	12.00	12.47	14.62	15.20	15.11	15.68	16.15
8H	4H	10.30	10.94	10.76	11.39	11.86	14.20	14.84	14.67	15.29	15.76
	6H	11.21	11.73	11.71	12.23	12.71	14.53	15.06	15.03	15.55	16.03
	8H	11.63	12.11	12.15	12.62	13.11	14.72	15.20	15.24	15.71	16.20
	12H	12.05	12.47	12.57	12.97	13.54	14.97	15.39	15.49	15.89	16.46
12H	4H	10.35	10.92	10.84	11.41	11.88	14.19	14.76	14.67	15.24	15.72
	6H	11.34	11.82	11.86	12.33	12.82	14.54	15.02	15.06	15.54	16.03
	8H	11.88	12.31	12.40	12.80	13.37	14.80	15.22	15.32	15.72	16.29