

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: P1059248

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

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2024
Report Number: P1059248
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-69)
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-S
Description: DEFINE 3 SILVER REGRESSED DIRECT RECESSED HOUSING WITH BLACK STRAIGHT BLADE LOUVER WITH DIFFUSER
CORE LIGHT ENGINE
Light Source: 3000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

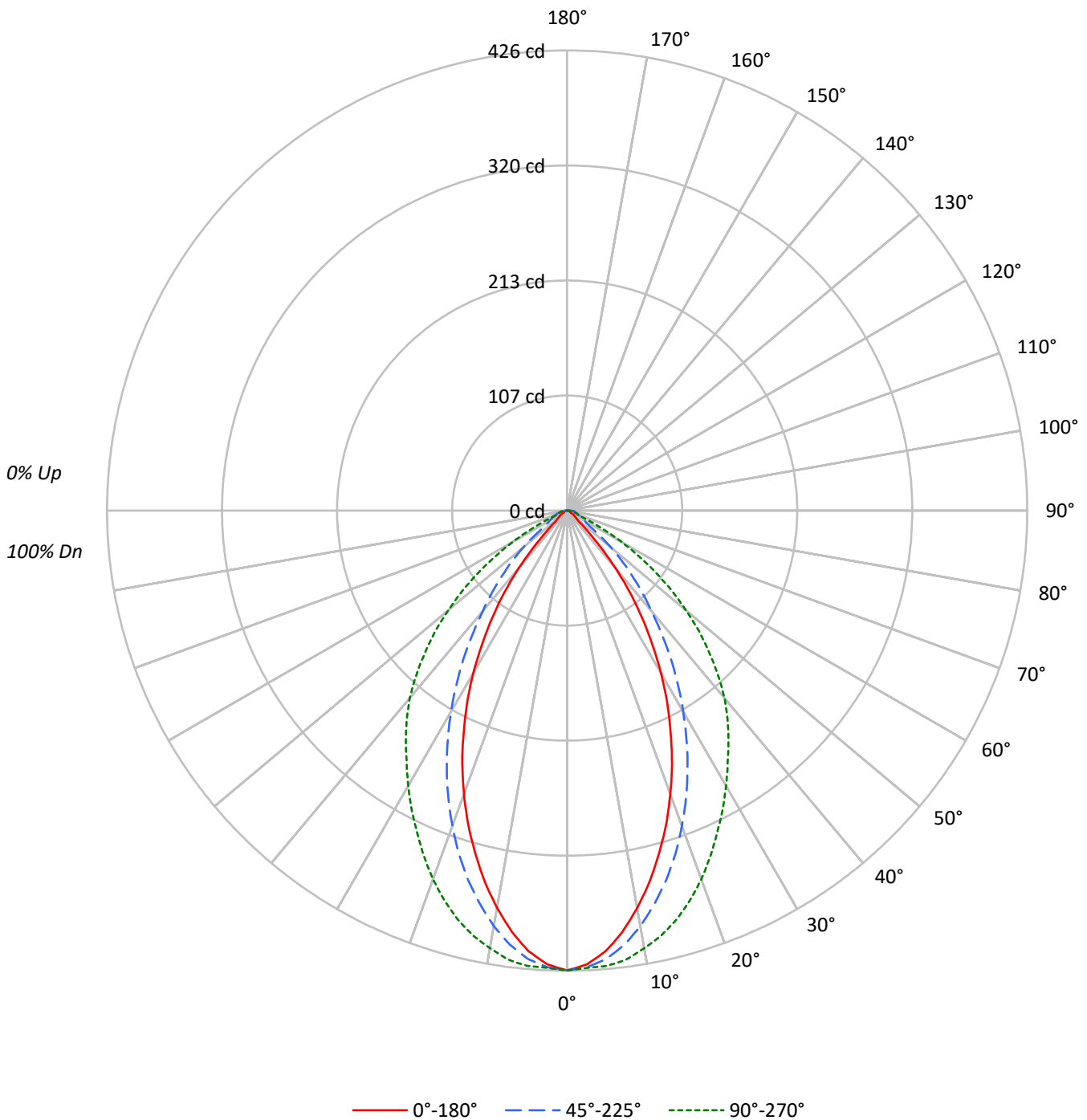
Lumens per Lamp: N/A
Luminaire Lumens: 511.3 lumens
Efficiency: N/A
Efficacy: 26.1 lumens/watt
Spacing Criteria (0/90/45): 0.79 / 1.06 / 0.94
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')
CIE Type: Direct

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	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	89	102	97	92	88	94	90	86	90	87	85	88	85	83	81
3	98	90	84	79	96	89	83	78	86	81	77	83	79	76	81	78	75	73
4	92	83	76	71	90	81	75	70	79	74	69	77	72	69	75	71	68	66
5	86	76	69	64	84	75	68	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	64	58	53	63	57	53	62	56	52	61	56	52	50
8	72	61	54	49	70	60	53	49	59	53	48	58	52	48	57	52	48	46
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	41	40

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	4999	4999	4999
5°	4826	4911	4987
10°	4455	4656	4905
15°	3996	4305	4763
20°	3489	3880	4539
25°	2935	3415	4259
30°	2357	2912	3989
35°	1726	2398	3733
40°	1067	1865	3472
45°	410	1405	3092
50°	203	963	2616
55°	160	532	2051
60°	108	444	1376
65°	92	397	614
70°	89	357	357
75°	118	386	354
80°	176	487	399
85°	269	795	525

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 3092 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	39.0	7.6
10°-20°	99.9	19.5
20°-30°	124.0	24.3
30°-40°	111.1	21.7
40°-50°	73.0	14.3
50°-60°	36.6	7.2
60°-70°	14.4	2.8
70°-80°	8.1	1.6
80°-90°	5.1	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°	263.0	51.4
0°-40°	374.1	73.2
0°-60°	483.7	94.6
0°-90°	511.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	511.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	426	426	426	426	426	
5°	409	416	417	419	423	38
15°	329	339	354	378	392	92
25°	226	241	264	301	329	104
35°	120	137	167	219	260	75
45°	25	41	85	142	186	23
55°	8	9	26	70	100	7
65°	3	9	14	18	22	3
75°	3	8	8	8	8	3
85°	2	6	6	6	4	2
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	425.7	425.7	425.7	425.7	425.7
2.5°	420.5	426.3	423.1	423.1	423.7
5°	409.4	415.9	416.6	419.2	423.1
7.5°	393.1	401.6	405.5	413.3	419.2
10°	373.6	382.7	390.5	404.2	411.4
12.5°	352.1	361.2	373.0	391.8	402.9
15°	328.7	339.1	354.1	378.2	391.8
17.5°	304.6	315.0	333.3	360.6	378.2
20°	279.2	290.9	310.5	341.7	363.2
22.5°	253.8	266.9	287.7	321.5	346.3
25°	226.5	240.8	263.6	300.7	328.7
27.5°	200.5	215.4	239.5	279.9	311.8
30°	173.8	188.8	214.8	258.4	294.2
32.5°	146.5	163.4	190.7	238.2	276.6
35°	120.4	136.7	167.3	218.7	260.4
37.5°	95.0	111.3	143.2	199.8	244.1
40°	69.6	86.6	121.7	181.6	226.5
42.5°	45.6	63.1	102.8	163.4	207.0
45°	24.7	41.0	84.6	142.5	186.2
47.5°	13.7	22.1	68.3	123.0	166.0
50°	11.1	12.4	52.7	104.8	143.2
52.5°	9.1	10.4	37.8	87.2	122.4
55°	7.8	9.1	26.0	70.3	100.2
57.5°	6.5	7.8	20.8	54.0	78.8
60°	4.6	7.8	18.9	39.7	58.6
62.5°	3.9	7.8	16.3	27.3	39.1
65°	3.3	9.1	14.3	18.2	22.1
67.5°	2.6	9.1	12.4	11.7	11.7
70°	2.6	9.1	10.4	9.8	10.4
72.5°	2.6	9.8	9.8	9.1	9.1
75°	2.6	8.5	8.5	7.8	7.8
77.5°	2.6	7.8	7.8	7.2	7.2
80°	2.6	7.2	7.2	6.5	5.9
82.5°	2.6	6.5	6.5	5.9	5.2
85°	2.0	5.9	5.9	5.9	3.9
87.5°	2.0	5.2	5.9	5.2	3.3
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	0.00	0.00	12.14	13.39	12.50	13.71	14.02
	3H	0.56	1.68	0.94	2.01	2.37	12.21	13.33	12.59	13.66	14.02
	4H	1.74	2.77	2.14	3.12	3.51	12.28	13.31	12.68	13.66	14.05
	6H	2.79	3.74	3.20	4.11	4.51	12.38	13.33	12.79	13.70	14.09
	8H	3.33	4.23	3.76	4.62	5.02	12.44	13.34	12.87	13.73	14.13
	12H	3.82	4.68	4.25	5.06	5.49	12.51	13.37	12.94	13.75	14.18
4H	2H	1.30	2.34	1.71	2.69	3.07	12.00	13.03	12.40	13.38	13.77
	3H	3.77	4.61	4.18	5.02	5.42	12.17	13.02	12.58	13.42	13.82
	4H	5.12	5.88	5.56	6.30	6.74	12.30	13.05	12.73	13.47	13.92
	6H	6.26	6.91	6.72	7.36	7.82	12.52	13.17	12.98	13.62	14.08
	8H	6.76	7.38	7.23	7.82	8.30	12.64	13.25	13.11	13.70	14.17
	12H	7.23	7.77	7.72	8.25	8.73	12.80	13.34	13.29	13.82	14.30
8H	4H	6.04	6.65	6.51	7.10	7.57	12.30	12.91	12.77	13.36	13.83
	6H	7.64	8.14	8.15	8.64	9.12	12.63	13.13	13.14	13.63	14.11
	8H	8.47	8.92	8.99	9.44	9.93	12.86	13.32	13.39	13.83	14.32
	12H	9.26	9.66	9.77	10.15	10.72	13.19	13.59	13.71	14.09	14.66
12H	4H	6.21	6.75	6.70	7.23	7.71	12.29	12.83	12.78	13.31	13.79
	6H	7.96	8.41	8.48	8.93	9.42	12.67	13.12	13.19	13.63	14.13
	8H	8.97	9.37	9.48	9.86	10.43	12.98	13.38	13.49	13.87	14.44