

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: P1059656

Luminaire Tested: S123RDR-H560D830-X4F0-XX-UDD-SVL-S

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1059656
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-68)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S123RDR-H560D830-X4F0-XX-UDD-SVL-S
Description: DEFINE 3 SILVER REGRESSED DIRECT RECESSED HOUSING WITH SILVER STRAIGHT BLADE
LOUVER WITH DIFFUSER
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 3000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

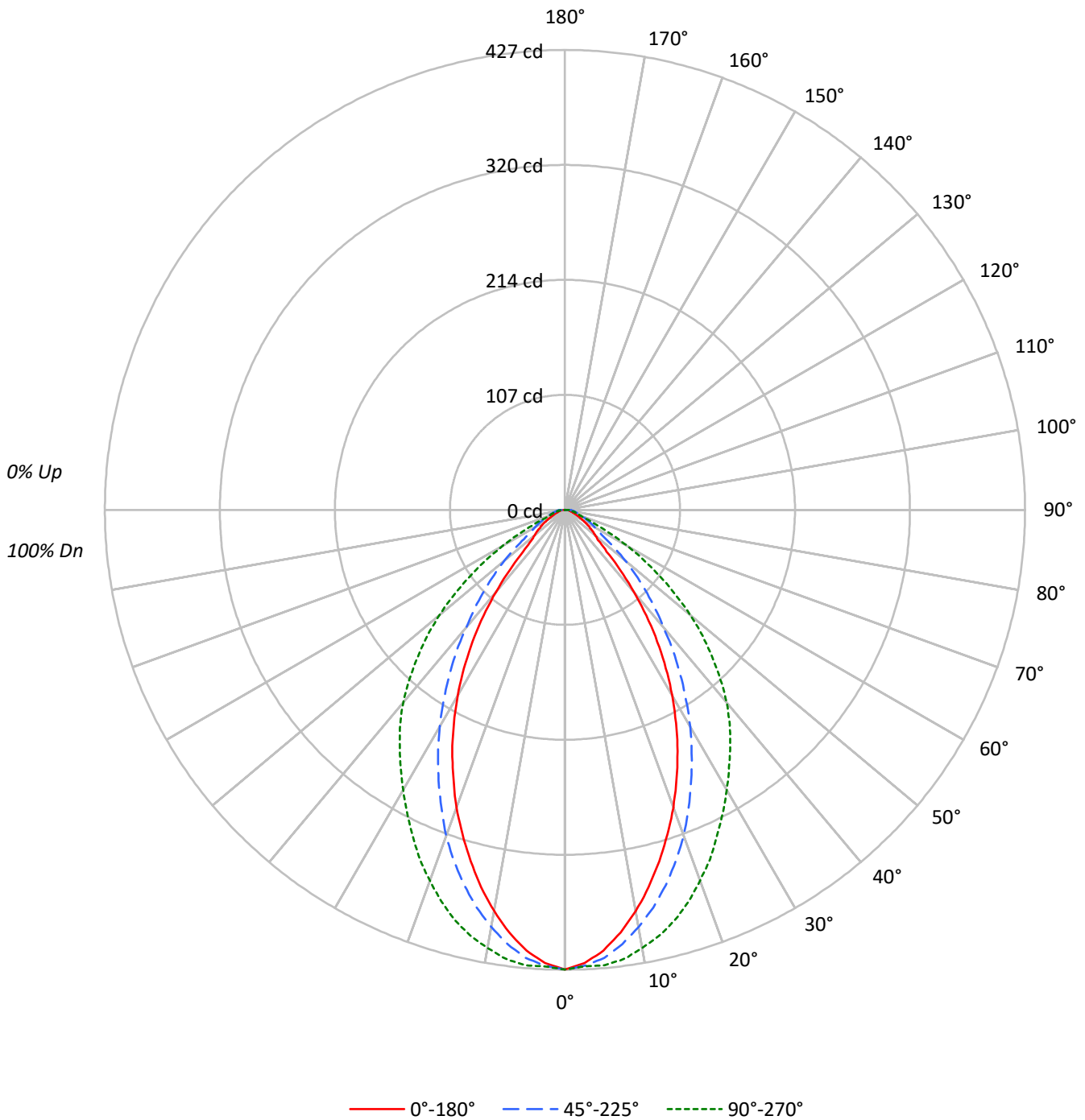
Lumens per Lamp: N/A
Luminaire Lumens: 571.6 lumens
Efficiency: N/A
Efficacy: 32.9 lumens/watt
Spacing Criteria (0/90/45): 0.83 / 1.07 / 0.98
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 17.4
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	50	30	10	0	
RCR																						
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100				100
1	111	108	105	102	109	106	103	100	101	99	97	98	96	94	94	93	91	89				89
2	104	98	92	88	102	96	91	87	92	88	85	89	86	83	86	84	81	79				79
3	97	89	82	77	95	87	81	77	84	79	75	82	78	74	79	76	73	71				71
4	91	81	74	69	88	80	73	68	77	72	67	75	70	66	73	69	66	64				64
5	85	74	67	61	83	73	66	61	71	65	61	69	64	60	68	63	59	58				58
6	79	68	61	56	78	67	60	55	66	60	55	64	59	54	63	58	54	52				52
7	74	63	56	51	73	62	55	50	61	55	50	60	54	50	58	53	49	48				48
8	70	58	51	46	69	58	51	46	57	50	46	56	50	46	54	49	45	44				44
9	66	54	47	43	65	54	47	43	53	47	42	52	46	42	51	46	42	40				40
10	62	51	44	39	61	50	44	39	50	43	39	49	43	39	48	43	39	37				37

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	5012	5012	5012
5°	4840	4921	5001
10°	4509	4688	4926
15°	4105	4386	4795
20°	3675	4025	4579
25°	3205	3593	4327
30°	2696	3151	4072
35°	2143	2671	3832
40°	1528	2178	3582
45°	910	1749	3208
50°	672	1332	2777
55°	561	905	2207
60°	453	747	1550
65°	364	642	831
70°	299	556	515
75°	281	535	481
80°	298	588	467
85°	418	835	593

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 3208 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	39.2	6.9
10°-20°	101.9	17.8
20°-30°	129.9	22.7
30°-40°	122.2	21.4
40°-50°	87.8	15.4
50°-60°	50.3	8.8
60°-70°	23.0	4.0
70°-80°	11.6	2.0
80°-90°	5.6	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°	271.0	47.4
0°-40°	393.2	68.8
0°-60°	531.4	93.0
0°-90°	571.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	571.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	427	427	427	427	427	
5°	411	419	418	421	424	38
15°	338	350	361	380	394	94
25°	247	259	277	307	334	113
35°	150	160	186	229	267	93
45°	55	67	105	155	193	46
55°	27	28	44	82	108	25
65°	13	18	23	26	30	13
75°	6	12	12	11	11	7
85°	3	6	6	6	4	3
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	426.8	426.8	426.8	426.8	426.8
2.5°	421.2	427.5	423.7	423.7	424.3
5°	410.6	418.7	417.5	420.6	424.3
7.5°	395.7	404.4	406.9	414.4	420.6
10°	378.2	388.2	393.2	405.0	413.1
12.5°	358.9	370.1	378.2	393.2	405.0
15°	337.7	349.6	360.8	380.1	394.4
17.5°	315.9	327.8	342.1	364.5	381.3
20°	294.1	305.9	322.1	345.8	366.4
22.5°	270.4	282.3	299.7	326.5	351.4
25°	247.4	258.6	277.3	307.2	334.0
27.5°	223.1	234.3	254.9	287.3	317.2
30°	198.8	210.0	232.4	267.3	300.3
32.5°	174.5	185.1	209.4	248.0	283.5
35°	149.5	160.1	186.3	228.7	267.3
37.5°	124.0	134.6	165.1	211.2	251.1
40°	99.7	111.5	142.1	193.8	233.7
42.5°	76.0	88.5	123.4	175.1	213.7
45°	54.8	66.7	105.3	155.2	193.2
47.5°	41.7	48.0	89.1	135.2	173.2
50°	36.8	37.4	72.9	117.1	152.0
52.5°	31.8	32.4	56.7	99.7	129.6
55°	27.4	28.0	44.2	81.6	107.8
57.5°	23.1	24.3	36.1	64.8	86.6
60°	19.3	21.8	31.8	49.2	66.0
62.5°	15.6	19.9	27.4	36.1	47.4
65°	13.1	18.1	23.1	25.5	29.9
67.5°	10.6	16.8	19.3	18.1	18.1
70°	8.7	15.0	16.2	15.0	15.0
72.5°	7.5	14.3	13.7	12.5	12.5
75°	6.2	12.5	11.8	10.6	10.6
77.5°	5.6	10.6	10.0	9.3	8.7
80°	4.4	8.7	8.7	8.1	6.9
82.5°	3.7	7.5	7.5	6.9	5.6
85°	3.1	6.2	6.2	5.6	4.4
87.5°	2.5	5.6	5.6	5.0	3.1
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	5.59	6.90	5.95	7.22	7.53	12.81	14.13	13.17	14.44	14.75
	3H	6.99	8.15	7.37	8.48	8.85	13.04	14.21	13.42	14.54	14.91
	4H	7.55	8.64	7.95	8.99	9.37	13.15	14.24	13.55	14.59	14.98
	6H	8.01	9.01	8.42	9.38	9.77	13.26	14.26	13.67	14.63	15.02
	8H	8.19	9.14	8.62	9.53	9.94	13.31	14.26	13.74	14.65	15.05
	12H	8.38	9.29	8.81	9.67	10.10	13.36	14.27	13.79	14.65	15.08
4H	2H	6.66	7.75	7.07	8.10	8.49	12.77	13.86	13.17	14.21	14.59
	3H	8.35	9.24	8.76	9.65	10.05	13.14	14.03	13.55	14.44	14.84
	4H	9.19	9.98	9.62	10.40	10.85	13.32	14.12	13.76	14.54	14.98
	6H	9.84	10.54	10.31	10.98	11.45	13.55	14.24	14.01	14.68	15.15
	8H	10.10	10.74	10.57	11.19	11.66	13.65	14.29	14.12	14.74	15.21
	12H	10.35	10.92	10.84	11.40	11.88	13.76	14.34	14.25	14.82	15.29
8H	4H	9.62	10.27	10.09	10.71	11.18	13.37	14.01	13.84	14.46	14.93
	6H	10.57	11.10	11.07	11.60	12.08	13.70	14.23	14.20	14.73	15.21
	8H	11.04	11.51	11.56	12.03	12.52	13.89	14.37	14.41	14.88	15.37
	12H	11.51	11.93	12.02	12.43	13.00	14.13	14.55	14.64	15.04	15.61
12H	4H	9.68	10.25	10.17	10.73	11.21	13.36	13.93	13.85	14.41	14.89
	6H	10.72	11.20	11.24	11.71	12.20	13.73	14.20	14.25	14.72	15.21
	8H	11.31	11.73	11.83	12.23	12.80	13.99	14.41	14.50	14.91	15.48