

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: P1059700

Luminaire Tested: S123RDR-H560D930-X4F0-XX-UDD-SVL-B

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1059700
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2406-143-29)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S123RDR-H560D930-X4F0-XX-UDD-SVL-B
Description: DEFINE 3 BLACK REGRESSED DIRECT RECESSED HOUSING WITH SILVER STRAIGHT BLADE
LOUVER WITH DIFFUSER
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 3000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

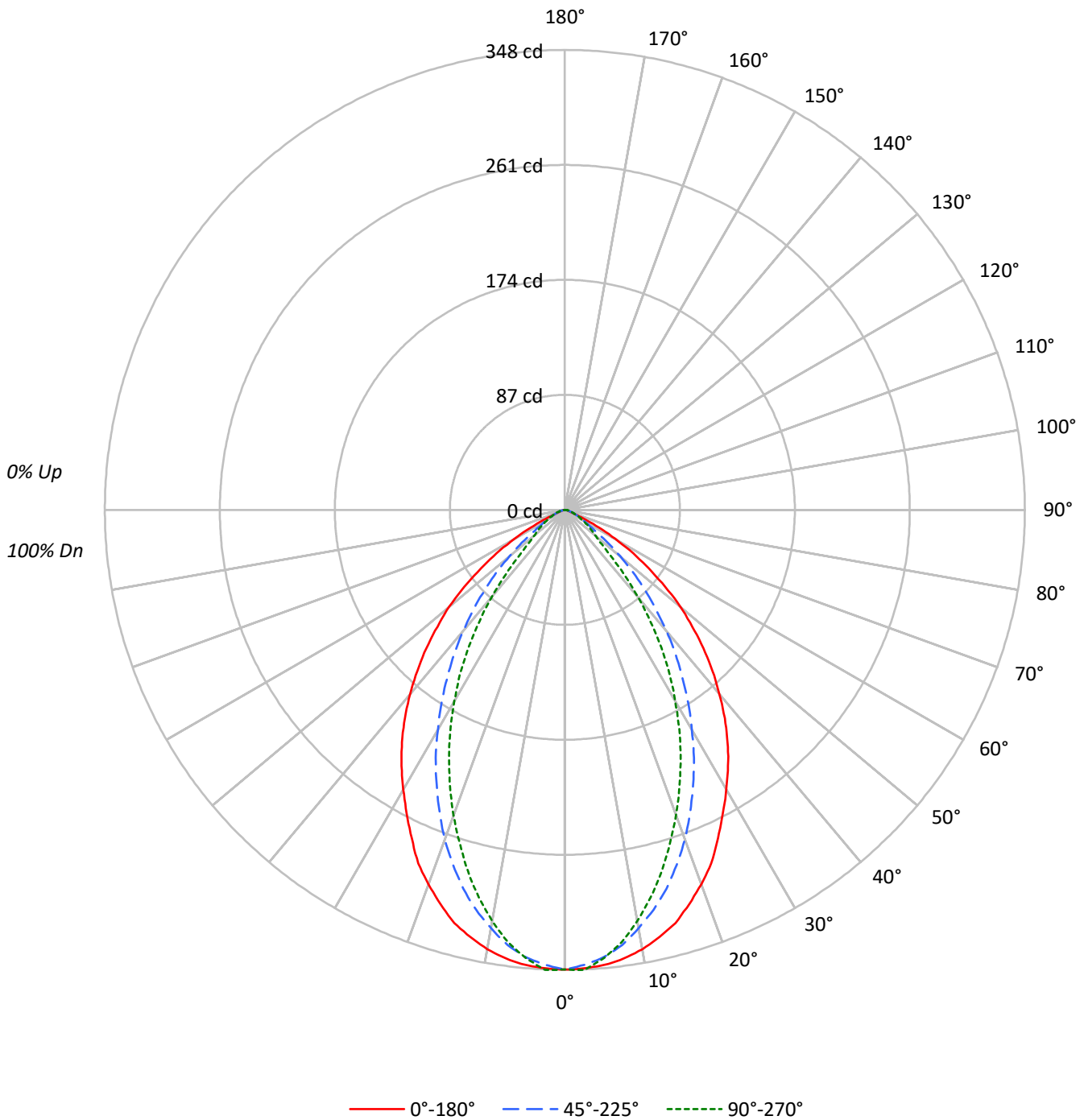
Lumens per Lamp: N/A
Luminaire Lumens: 449.0 lumens
Efficiency: N/A
Efficacy: 25.8 lumens/watt
Spacing Criteria (0/90/45): 1.08 / 0.85 / 0.98
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')
CIE Type: Direct

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				
1	112	109	106	103	110	107	104	102	103	100	98	99	97	95	95	94	93	91				
2	105	99	94	90	103	97	93	89	94	90	87	91	88	85	88	86	83	82				
3	98	90	84	80	96	89	83	79	86	82	78	84	80	76	81	78	75	73				
4	92	83	76	71	90	82	75	71	79	74	70	77	73	69	75	71	68	66				
5	86	76	69	64	84	75	68	63	73	67	63	71	66	62	70	65	62	60				
6	81	70	63	58	79	69	62	58	68	62	57	66	61	57	65	60	56	55				
7	76	65	58	53	74	64	57	53	63	57	52	61	56	52	60	55	52	50				
8	71	60	53	48	70	60	53	48	58	52	48	57	52	48	56	51	48	46				
9	67	56	49	45	66	56	49	44	55	49	44	54	48	44	53	48	44	42				
10	64	52	46	41	63	52	46	41	51	45	41	50	45	41	49	44	41	39				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	4084	4084	4084
5°	4075	4004	4011
10°	4025	3832	3768
15°	3934	3607	3443
20°	3768	3316	3075
25°	3551	2972	2686
30°	3314	2606	2263
35°	3079	2223	1822
40°	2790	1832	1320
45°	2459	1422	795
50°	2084	994	541
55°	1587	596	452
60°	1036	380	355
65°	433	283	283
70°	148	203	223
75°	122	145	172
80°	74	108	149
85°	67	67	148

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 2459 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	32.1	7.2
10°-20°	84.1	18.7
20°-30°	107.8	24.0
30°-40°	101.2	22.5
40°-50°	70.6	15.7
50°-60°	36.5	8.1
60°-70°	12.5	2.8
70°-80°	3.6	0.8
80°-90°	0.7	0.2
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°	224.0	49.9
0°-40°	325.2	72.4
0°-60°	432.2	96.3
0°-90°	449.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	449.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	348	348	348	348	348	
5°	346	345	340	341	340	33
15°	324	316	297	287	283	91
25°	274	257	229	214	207	126
35°	215	188	155	135	127	134
45°	148	121	86	59	48	114
55°	78	58	29	23	22	70
65°	16	14	10	10	10	18
75°	3	3	3	4	4	3
85°	0	0	0	0	1	0
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	347.8	347.8	347.8	347.8	347.8
2.5°	347.3	347.8	344.6	347.8	348.4
5°	345.7	345.1	339.7	341.4	340.3
7.5°	342.4	340.8	332.2	330.0	330.0
10°	337.6	334.4	321.4	317.7	316.0
12.5°	331.1	326.8	310.1	303.1	300.4
15°	323.6	315.5	296.7	287.0	283.2
17.5°	312.8	302.1	281.6	270.3	264.4
20°	301.5	288.1	265.4	252.0	246.1
22.5°	289.7	273.5	247.7	233.1	226.7
25°	274.1	256.8	229.4	213.8	207.3
27.5°	259.0	240.7	211.6	193.8	187.4
30°	244.4	222.9	192.2	175.0	166.9
32.5°	229.9	205.7	173.9	155.1	147.5
35°	214.8	188.4	155.1	135.1	127.1
37.5°	198.7	171.8	137.3	115.8	106.1
40°	182.0	154.0	119.5	95.3	86.1
42.5°	165.3	137.8	101.8	77.0	66.2
45°	148.1	121.1	85.6	59.2	47.9
47.5°	130.8	104.5	70.0	43.1	36.1
50°	114.1	88.8	54.4	31.8	29.6
52.5°	95.8	73.8	40.9	26.4	25.8
55°	77.5	58.1	29.1	22.6	22.1
57.5°	61.4	45.2	21.0	18.8	18.3
60°	44.1	32.3	16.2	15.6	15.1
62.5°	29.1	22.1	12.9	12.4	12.4
65°	15.6	13.5	10.2	9.7	10.2
67.5°	6.5	7.5	7.5	8.1	8.1
70°	4.3	4.8	5.9	6.5	6.5
72.5°	3.2	3.8	4.3	4.8	4.8
75°	2.7	2.7	3.2	3.8	3.8
77.5°	1.6	2.2	2.2	2.7	3.2
80°	1.1	1.6	1.6	2.2	2.2
82.5°	0.5	1.1	1.1	1.6	1.6
85°	0.5	0.5	0.5	0.5	1.1
87.5°	0.0	0.0	0.0	0.0	0.5
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	11.22	12.48	11.58	12.79	13.11	4.71	5.97	5.08	6.29	6.60
	3H	11.17	12.28	11.55	12.61	12.98	5.50	6.61	5.88	6.94	7.30
	4H	11.12	12.15	11.52	12.50	12.88	5.70	6.73	6.11	7.08	7.47
	6H	11.05	11.99	11.46	12.36	12.76	5.85	6.79	6.26	7.16	7.56
	8H	11.01	11.90	11.44	12.29	12.69	5.88	6.77	6.31	7.17	7.57
	12H	10.96	11.81	11.40	12.20	12.63	5.90	6.75	6.33	7.14	7.57
4H	2H	11.06	12.09	11.47	12.45	12.83	4.97	6.00	5.37	6.35	6.74
	3H	11.05	11.88	11.46	12.29	12.69	5.89	6.72	6.30	7.13	7.53
	4H	11.00	11.74	11.43	12.16	12.61	6.16	6.90	6.60	7.33	7.77
	6H	10.94	11.58	11.41	12.03	12.50	6.38	7.02	6.85	7.47	7.94
	8H	10.89	11.48	11.36	11.93	12.40	6.44	7.04	6.91	7.49	7.96
	12H	10.84	11.37	11.33	11.85	12.33	6.48	7.00	6.97	7.49	7.96
8H	4H	10.89	11.48	11.36	11.93	12.40	6.15	6.74	6.62	7.19	7.66
	6H	10.82	11.31	11.33	11.81	12.29	6.42	6.90	6.92	7.40	7.88
	8H	10.77	11.21	11.30	11.72	12.22	6.53	6.96	7.05	7.48	7.97
	12H	10.73	11.12	11.25	11.61	12.19	6.60	6.98	7.11	7.48	8.05
12H	4H	10.84	11.36	11.33	11.85	12.32	6.11	6.63	6.60	7.12	7.59
	6H	10.77	11.20	11.29	11.72	12.21	6.38	6.82	6.91	7.33	7.83
	8H	10.74	11.12	11.25	11.62	12.19	6.52	6.90	7.04	7.40	7.97