

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: P1059610

Luminaire Tested: S123RDR-H340D927-X4F0-XX-UDD-SVL-B

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1059610
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-H340D927-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: 2700K CCT, 90 CRI LEDS
Ballast/Driver: -

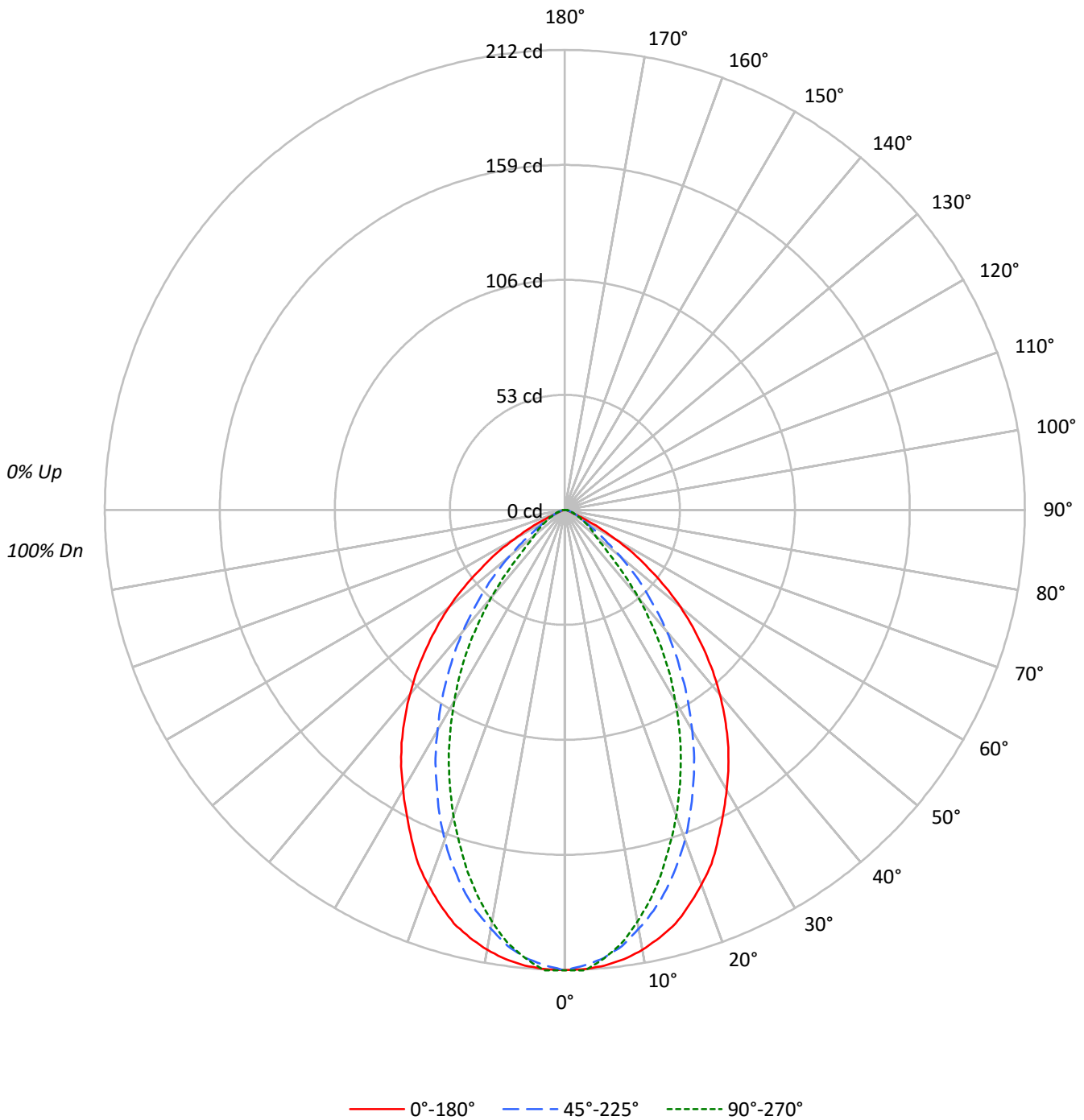
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 274.0 lumens
Efficiency: N/A
Efficacy: 23.4 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): 11.7
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°	2492	2492	2492
5°	2486	2444	2447
10°	2456	2338	2299
15°	2400	2200	2101
20°	2299	2024	1876
25°	2166	1813	1639
30°	2022	1590	1380
35°	1879	1356	1111
40°	1701	1117	806
45°	1500	867	485
50°	1271	606	331
55°	968	362	276
60°	632	233	216
65°	264	172	172
70°	89	124	134
75°	73	91	104
80°	47	68	88
85°	40	40	94

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 1500 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	19.6	7.2
10°-20°	51.3	18.7
20°-30°	65.8	24.0
30°-40°	61.7	22.5
40°-50°	43.1	15.7
50°-60°	22.3	8.1
60°-70°	7.6	2.8
70°-80°	2.2	0.8
80°-90°	0.5	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°	136.7	49.9
0°-40°	198.4	72.4
0°-60°	263.7	96.3
0°-90°	274.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	274.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	212	212	212	212	212	
5°	211	211	207	208	208	20
15°	197	192	181	175	173	55
25°	167	157	140	130	126	77
35°	131	115	95	82	78	82
45°	90	74	52	36	29	70
55°	47	36	18	14	14	43
65°	10	8	6	6	6	11
75°	2	2	2	2	2	2
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°	212.2	212.2	212.2	212.2	212.2
2.5°	211.9	212.2	210.2	212.2	212.5
5°	210.9	210.6	207.3	208.3	207.6
7.5°	208.9	207.9	202.7	201.4	201.4
10°	206.0	204.0	196.1	193.8	192.8
12.5°	202.0	199.4	189.2	184.9	183.3
15°	197.4	192.5	181.0	175.1	172.8
17.5°	190.9	184.3	171.8	164.9	161.3
20°	184.0	175.8	162.0	153.7	150.1
22.5°	176.7	166.9	151.1	142.2	138.3
25°	167.2	156.7	139.9	130.4	126.5
27.5°	158.0	146.8	129.1	118.3	114.3
30°	149.1	136.0	117.3	106.8	101.8
32.5°	140.3	125.5	106.1	94.6	90.0
35°	131.1	115.0	94.6	82.5	77.5
37.5°	121.2	104.8	83.8	70.6	64.7
40°	111.0	94.0	72.9	58.1	52.6
42.5°	100.9	84.1	62.1	47.0	40.4
45°	90.3	73.9	52.2	36.1	29.2
47.5°	79.8	63.7	42.7	26.3	22.0
50°	69.6	54.2	33.2	19.4	18.1
52.5°	58.5	45.0	25.0	16.1	15.8
55°	47.3	35.5	17.7	13.8	13.5
57.5°	37.4	27.6	12.8	11.5	11.2
60°	26.9	19.7	9.9	9.5	9.2
62.5°	17.7	13.5	7.9	7.6	7.6
65°	9.5	8.2	6.2	5.9	6.2
67.5°	3.9	4.6	4.6	4.9	4.9
70°	2.6	3.0	3.6	3.9	3.9
72.5°	2.0	2.3	2.6	3.0	3.0
75°	1.6	1.6	2.0	2.3	2.3
77.5°	1.0	1.3	1.3	1.6	2.0
80°	0.7	1.0	1.0	1.3	1.3
82.5°	0.3	0.7	0.7	1.0	1.0
85°	0.3	0.3	0.3	0.3	0.7
87.5°	0.0	0.0	0.0	0.0	0.3
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	9.50	10.76	9.87	11.08	11.39	3.01	4.27	3.38	4.59	4.90
	3H	9.46	10.57	9.84	10.90	11.26	3.78	4.88	4.16	5.22	5.58
	4H	9.40	10.43	9.81	10.78	11.17	3.98	5.01	4.39	5.36	5.75
	6H	9.33	10.28	9.75	10.65	11.04	4.13	5.07	4.54	5.44	5.83
	8H	9.29	10.18	9.72	10.57	10.98	4.16	5.05	4.59	5.45	5.85
	12H	9.25	10.10	9.68	10.48	10.91	4.19	5.04	4.62	5.42	5.85
4H	2H	9.35	10.38	9.75	10.73	11.12	3.27	4.29	3.67	4.65	5.03
	3H	9.34	10.17	9.75	10.57	10.98	4.16	5.00	4.58	5.40	5.81
	4H	9.28	10.02	9.72	10.44	10.89	4.44	5.18	4.87	5.60	6.05
	6H	9.22	9.86	9.69	10.31	10.78	4.65	5.29	5.12	5.74	6.21
	8H	9.17	9.77	9.64	10.22	10.69	4.71	5.31	5.19	5.76	6.23
	12H	9.13	9.65	9.61	10.13	10.61	4.76	5.28	5.25	5.77	6.24
8H	4H	9.17	9.76	9.64	10.21	10.68	4.42	5.02	4.89	5.46	5.94
	6H	9.11	9.59	9.61	10.09	10.57	4.69	5.17	5.19	5.67	6.15
	8H	9.06	9.49	9.58	10.01	10.50	4.80	5.23	5.32	5.75	6.24
	12H	9.02	9.40	9.53	9.90	10.47	4.88	5.26	5.39	5.76	6.33
12H	4H	9.12	9.65	9.61	10.13	10.61	4.38	4.91	4.87	5.39	5.87
	6H	9.05	9.48	9.57	10.00	10.50	4.65	5.09	5.18	5.60	6.10
	8H	9.02	9.41	9.54	9.90	10.47	4.79	5.18	5.31	5.67	6.25