

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: P1059476

Luminaire Tested: S123RDR-H1000D940-X4F0-XX-UDD-SVL-S

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1059476
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-H1000D940-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: 4000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

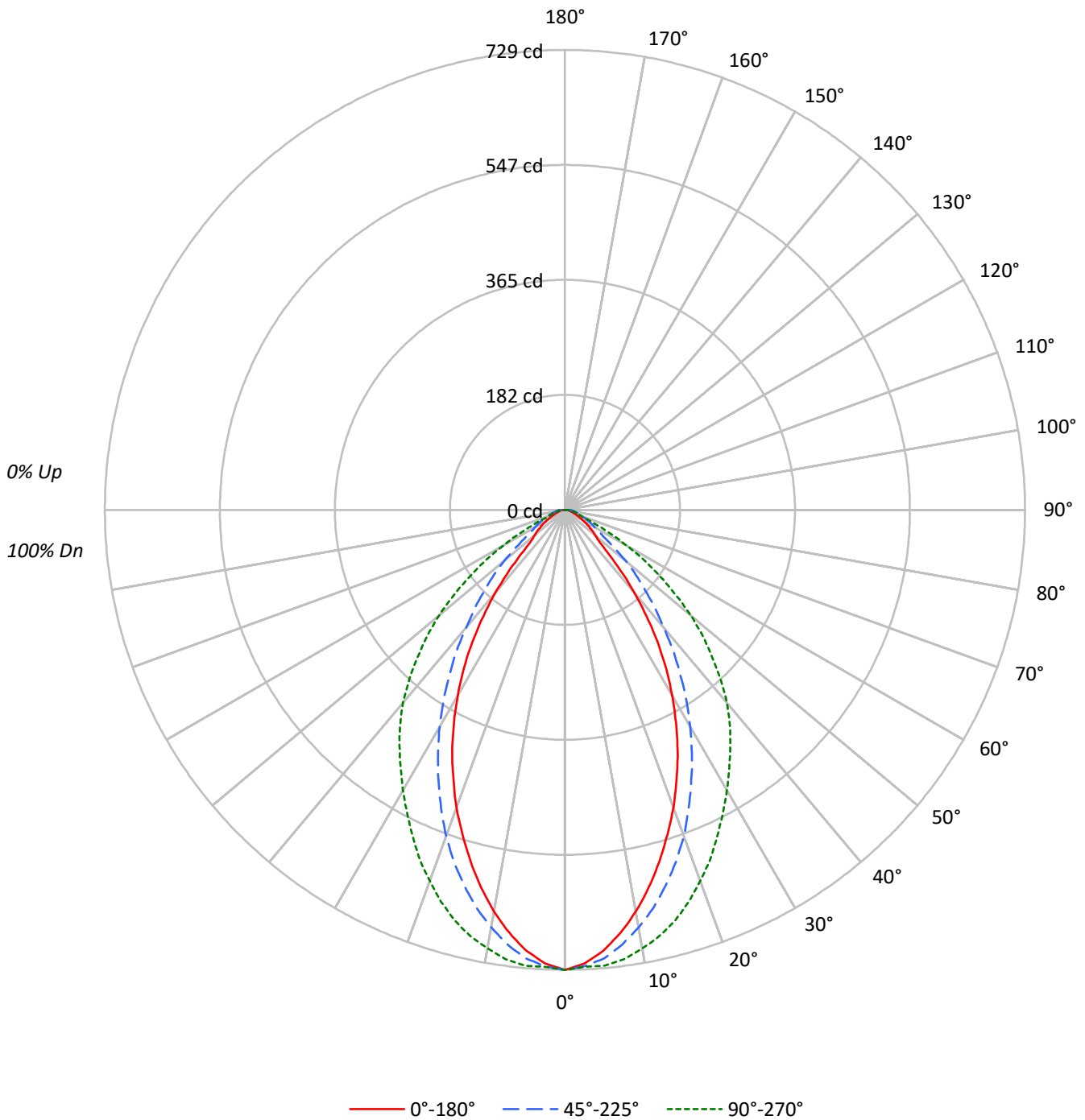
Lumens per Lamp: N/A
Luminaire Lumens: 976.8 lumens
Efficiency: N/A
Efficacy: 31.3 lumens/watt
Spacing Criteria (0/90/45): 0.83 / 1.07 / 0.98
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 31.2
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									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	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	101	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	91	81	74	69	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	61	69	64	60	68	63	59	58																												
6	79	68	61	56	78	67	60	55	66	60	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	56	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	50	43	39	49	43	39	48	43	39	37																												

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	8564	8564	8564
5°	8270	8409	8547
10°	7706	8010	8417
15°	7016	7495	8194
20°	6279	6879	7824
25°	5477	6139	7394
30°	4605	5384	6958
35°	3663	4563	6548
40°	2612	3722	6121
45°	1556	2987	5482
50°	1147	2276	4746
55°	958	1548	3771
60°	775	1275	2651
65°	622	1095	1420
70°	512	951	879
75°	481	916	821
80°	507	1008	791
85°	714	1428	1010

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 5482 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	67.0	6.9
10°-20°	174.0	17.8
20°-30°	222.0	22.7
30°-40°	208.9	21.4
40°-50°	150.1	15.4
50°-60°	86.0	8.8
60°-70°	39.3	4.0
70°-80°	19.8	2.0
80°-90°	9.6	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°	463.0	47.4
0°-40°	671.9	68.8
0°-60°	908.0	93.0
0°-90°	976.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	976.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	729	729	729	729	729	
5°	702	716	713	719	725	65
15°	577	597	616	650	674	161
25°	423	442	474	525	571	193
35°	256	274	318	391	457	158
45°	94	114	180	265	330	78
55°	47	48	76	140	184	42
65°	22	31	39	44	51	22
75°	11	21	20	18	18	12
85°	5	11	11	10	8	5
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	729.3	729.3	729.3	729.3	729.3
2.5°	719.7	730.4	724.0	724.0	725.1
5°	701.6	715.5	713.4	718.7	725.1
7.5°	676.1	691.0	695.3	708.0	718.7
10°	646.3	663.3	671.8	692.1	705.9
12.5°	613.3	632.4	646.3	671.8	692.1
15°	577.1	597.3	616.5	649.5	674.0
17.5°	539.8	560.0	584.5	622.9	651.6
20°	502.5	522.8	550.5	590.9	626.1
22.5°	462.1	482.3	512.1	557.9	600.5
25°	422.7	441.9	473.8	524.9	570.7
27.5°	381.2	400.3	435.5	490.8	541.9
30°	339.6	358.8	397.1	456.8	513.2
32.5°	298.1	316.2	357.7	423.8	484.4
35°	255.5	273.6	318.3	390.7	456.8
37.5°	211.9	230.0	282.1	360.9	429.1
40°	170.4	190.6	242.8	331.1	399.3
42.5°	129.9	151.2	210.8	299.2	365.2
45°	93.7	113.9	179.9	265.1	330.1
47.5°	71.3	82.0	152.3	231.0	296.0
50°	62.8	63.9	124.6	200.2	259.8
52.5°	54.3	55.4	96.9	170.4	221.5
55°	46.8	47.9	75.6	139.5	184.2
57.5°	39.4	41.5	61.8	110.7	148.0
60°	33.0	37.3	54.3	84.1	112.9
62.5°	26.6	34.1	46.8	61.8	80.9
65°	22.4	30.9	39.4	43.7	51.1
67.5°	18.1	28.7	33.0	30.9	30.9
70°	14.9	25.6	27.7	25.6	25.6
72.5°	12.8	24.5	23.4	21.3	21.3
75°	10.6	21.3	20.2	18.1	18.1
77.5°	9.6	18.1	17.0	16.0	14.9
80°	7.5	14.9	14.9	13.8	11.7
82.5°	6.4	12.8	12.8	11.7	9.6
85°	5.3	10.6	10.6	9.6	7.5
87.5°	4.3	9.6	9.6	8.5	5.3
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	7.44	8.76	7.81	9.07	9.39	14.67	15.99	15.03	16.30	16.61
	3H	8.84	10.01	9.22	10.34	10.71	14.90	16.07	15.28	16.40	16.77
	4H	9.40	10.49	9.81	10.84	11.23	15.01	16.10	15.41	16.45	16.84
	6H	9.87	10.87	10.28	11.24	11.63	15.12	16.12	15.53	16.49	16.88
	8H	10.05	11.00	10.48	11.39	11.80	15.17	16.12	15.60	16.51	16.91
	12H	10.24	11.15	10.68	11.53	11.96	15.22	16.13	15.65	16.51	16.94
4H	2H	8.52	9.61	8.92	9.96	10.34	14.63	15.72	15.03	16.07	16.45
	3H	10.21	11.10	10.62	11.51	11.91	15.00	15.89	15.41	16.30	16.70
	4H	11.04	11.84	11.48	12.26	12.70	15.18	15.98	15.62	16.40	16.84
	6H	11.70	12.39	12.16	12.84	13.31	15.40	16.10	15.87	16.54	17.01
	8H	11.96	12.60	12.43	13.05	13.52	15.50	16.15	15.97	16.60	17.07
	12H	12.21	12.78	12.70	13.27	13.74	15.62	16.19	16.11	16.68	17.15
8H	4H	11.48	12.12	11.95	12.57	13.04	15.23	15.87	15.70	16.32	16.79
	6H	12.43	12.96	12.93	13.46	13.94	15.56	16.09	16.06	16.58	17.07
	8H	12.90	13.37	13.42	13.89	14.38	15.75	16.23	16.27	16.74	17.23
	12H	13.37	13.79	13.89	14.29	14.86	15.98	16.41	16.50	16.90	17.47
12H	4H	11.54	12.11	12.02	12.59	13.06	15.22	15.79	15.71	16.27	16.75
	6H	12.58	13.05	13.10	13.57	14.06	15.59	16.06	16.11	16.58	17.07
	8H	13.17	13.59	13.69	14.09	14.66	15.85	16.27	16.36	16.76	17.33