

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: P1059236

Luminaire Tested: S123RDRP-S340D940-X4F0-XX-UDD-WVL-S

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2024
Report Number: P1059236
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-67)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S123RDRP-S340D940-X4F0-XX-UDD-WVL-S
Description: DEFINE 3 SILVER REGRESSED DIRECT RECESSED HOUSING WITH WHITE STRAIGHT BLADE
LOUVER WITH DIFFUSER
CORE LIGHT ENGINE
Light Source: 4000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

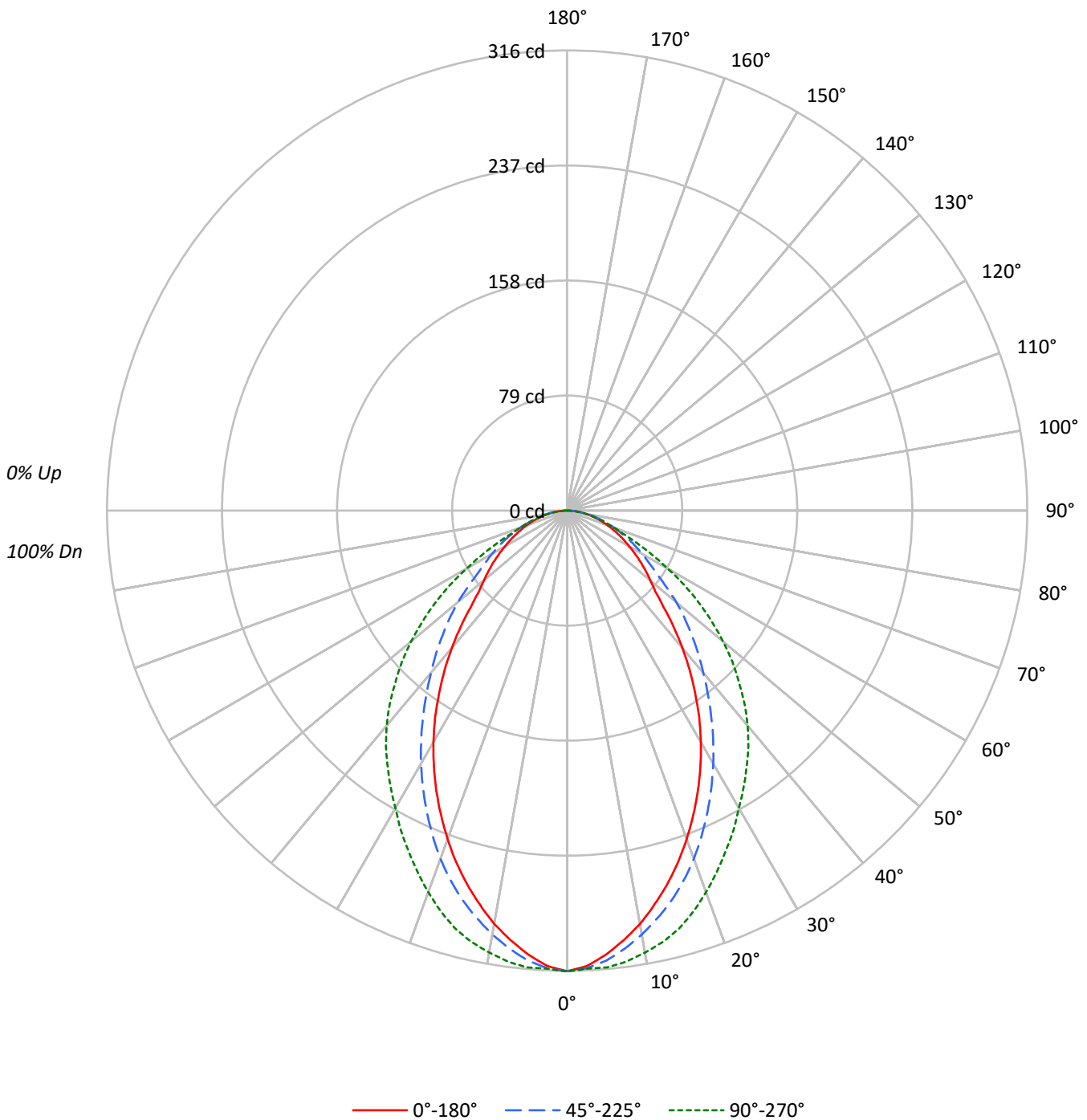
Lumens per Lamp: N/A
Luminaire Lumens: 571.5 lumens
Efficiency: N/A
Efficacy: 45.7 lumens/watt
Spacing Criteria (0/90/45): 0.93 / 1.12 / 1.1
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 12.5
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	110	106	102	99	108	104	100	97	100	97	94	96	93	91	92	90	89	87
2	102	94	88	83	99	92	87	82	89	84	80	86	82	78	83	80	77	75
3	94	84	77	71	91	83	76	71	80	74	69	77	72	68	75	71	67	65
4	87	76	68	62	84	74	67	61	72	66	61	70	64	60	68	63	59	57
5	80	69	60	54	78	68	60	54	66	59	54	64	58	53	62	57	53	51
6	75	63	54	48	73	62	54	48	60	53	48	58	52	47	57	51	47	45
7	70	57	49	44	68	56	49	43	55	48	43	54	47	43	52	47	43	41
8	65	53	45	39	64	52	45	39	51	44	39	50	43	39	48	43	39	37
9	61	49	41	36	60	48	41	36	47	40	36	46	40	36	45	39	35	34
10	58	45	38	33	56	45	38	33	44	37	33	43	37	33	42	37	33	31

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3715	3715	3715
5°	3607	3655	3712
10°	3436	3525	3675
15°	3229	3369	3612
20°	2999	3179	3485
25°	2753	2955	3340
30°	2489	2721	3199
35°	2196	2473	3079
40°	1887	2229	2957
45°	1553	2008	2772
50°	1363	1788	2554
55°	1261	1527	2262
60°	1158	1402	1872
65°	1081	1289	1473
70°	1020	1171	1171
75°	957	1075	1012
80°	906	981	852
85°	849	943	647

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 2772 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	29.3	5.1
10°-20°	78.4	13.7
20°-30°	106.3	18.6
30°-40°	111.2	19.5
40°-50°	96.4	16.9
50°-60°	71.7	12.6
60°-70°	46.0	8.1
70°-80°	24.7	4.3
80°-90°	7.4	1.3
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°	214.0	37.4
0°-40°	325.2	56.9
0°-60°	493.4	86.3
0°-90°	571.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	571.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	316	316	316	316	316	
5°	306	311	310	312	315	29
15°	266	272	277	288	297	74
25°	212	219	228	243	258	97
35°	153	161	172	194	215	96
45°	94	100	121	147	167	74
55°	62	63	75	96	110	55
65°	39	42	46	49	53	39
75°	21	24	24	23	22	22
85°	6	8	7	6	5	7
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	316.4	316.4	316.4	316.4	316.4
2.5°	313.0	317.5	314.5	314.5	314.9
5°	306.0	311.2	310.1	312.3	314.9
7.5°	297.5	303.0	303.4	308.6	312.3
10°	288.2	293.8	295.6	303.0	308.2
12.5°	277.1	283.4	286.7	296.0	303.4
15°	265.6	271.9	277.1	288.2	297.1
17.5°	253.3	259.6	266.3	278.9	288.6
20°	240.0	246.7	254.4	267.1	278.9
22.5°	226.3	233.3	241.5	255.2	268.5
25°	212.5	219.2	228.1	243.3	257.8
27.5°	198.1	205.1	214.4	231.1	247.4
30°	183.6	190.6	200.7	218.5	235.9
32.5°	168.8	175.8	186.6	206.6	225.5
35°	153.2	160.6	172.5	194.4	214.8
37.5°	138.3	145.4	158.7	182.9	204.4
40°	123.1	130.6	145.4	171.4	192.9
42.5°	108.3	115.7	133.2	159.1	180.3
45°	93.5	100.5	120.9	146.9	166.9
47.5°	82.0	87.2	109.4	133.9	153.9
50°	74.6	76.4	97.9	121.3	139.8
52.5°	67.9	69.4	85.3	108.7	125.4
55°	61.6	63.1	74.6	95.7	110.5
57.5°	55.3	57.1	66.4	82.3	95.7
60°	49.3	51.6	59.7	70.5	79.7
62.5°	44.1	46.7	53.0	59.7	66.0
65°	38.9	42.3	46.4	49.3	53.0
67.5°	34.1	37.8	40.1	40.8	41.2
70°	29.7	33.4	34.1	34.1	34.1
72.5°	25.2	29.3	28.6	28.2	27.8
75°	21.1	24.5	23.7	22.6	22.3
77.5°	17.1	20.0	18.9	18.2	17.1
80°	13.4	15.6	14.5	13.7	12.6
82.5°	10.0	11.5	10.4	9.6	8.5
85°	6.3	7.8	7.0	5.9	4.8
87.5°	3.3	4.5	3.7	3.3	1.9
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	11.34	12.83	11.71	13.14	13.46	14.10	15.58	14.46	15.90	16.21
	3H	13.05	14.38	13.43	14.71	15.07	15.12	16.45	15.50	16.78	17.14
	4H	13.71	14.96	14.11	15.31	15.69	15.49	16.73	15.89	17.08	17.46
	6H	14.22	15.37	14.63	15.73	16.13	15.74	16.89	16.15	17.26	17.65
	8H	14.40	15.49	14.82	15.88	16.28	15.81	16.91	16.24	17.30	17.70
	12H	14.52	15.57	14.95	15.95	16.38	15.85	16.89	16.28	17.28	17.71
4H	2H	12.12	13.37	12.52	13.72	14.10	14.37	15.62	14.77	15.97	16.35
	3H	14.05	15.08	14.46	15.48	15.88	15.63	16.66	16.04	17.06	17.46
	4H	14.86	15.79	15.29	16.20	16.64	16.11	17.04	16.55	17.46	17.90
	6H	15.50	16.31	15.96	16.75	17.21	16.49	17.30	16.95	17.75	18.21
	8H	15.73	16.48	16.19	16.93	17.39	16.61	17.36	17.07	17.80	18.27
	12H	15.90	16.57	16.38	17.05	17.52	16.67	17.35	17.16	17.83	18.30
8H	4H	15.18	15.93	15.64	16.38	16.84	16.30	17.06	16.77	17.50	17.97
	6H	15.97	16.59	16.47	17.09	17.56	16.79	17.42	17.29	17.91	18.39
	8H	16.30	16.86	16.81	17.37	17.86	16.97	17.53	17.48	18.04	18.53
	12H	16.58	17.07	17.09	17.56	18.13	17.10	17.59	17.61	18.09	18.65
12H	4H	15.20	15.87	15.68	16.35	16.83	16.32	16.99	16.80	17.47	17.94
	6H	16.02	16.59	16.54	17.10	17.59	16.83	17.39	17.34	17.90	18.39
	8H	16.42	16.91	16.93	17.41	17.97	17.06	17.55	17.57	18.05	18.61