

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: P1058420

Luminaire Tested: S122RDR-H485D940-X4F0-XX-UDD-BVL-S

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1058420
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-60)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S122RDR-H485D940-X4F0-XX-UDD-BVL-S
Description: DEFINE 2 SILVER REGRESSED DIRECT RECESSED HOUSING WITH BLACK STRAIGHT BLADE
LOUVER WITH DIFFUSER
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 4000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

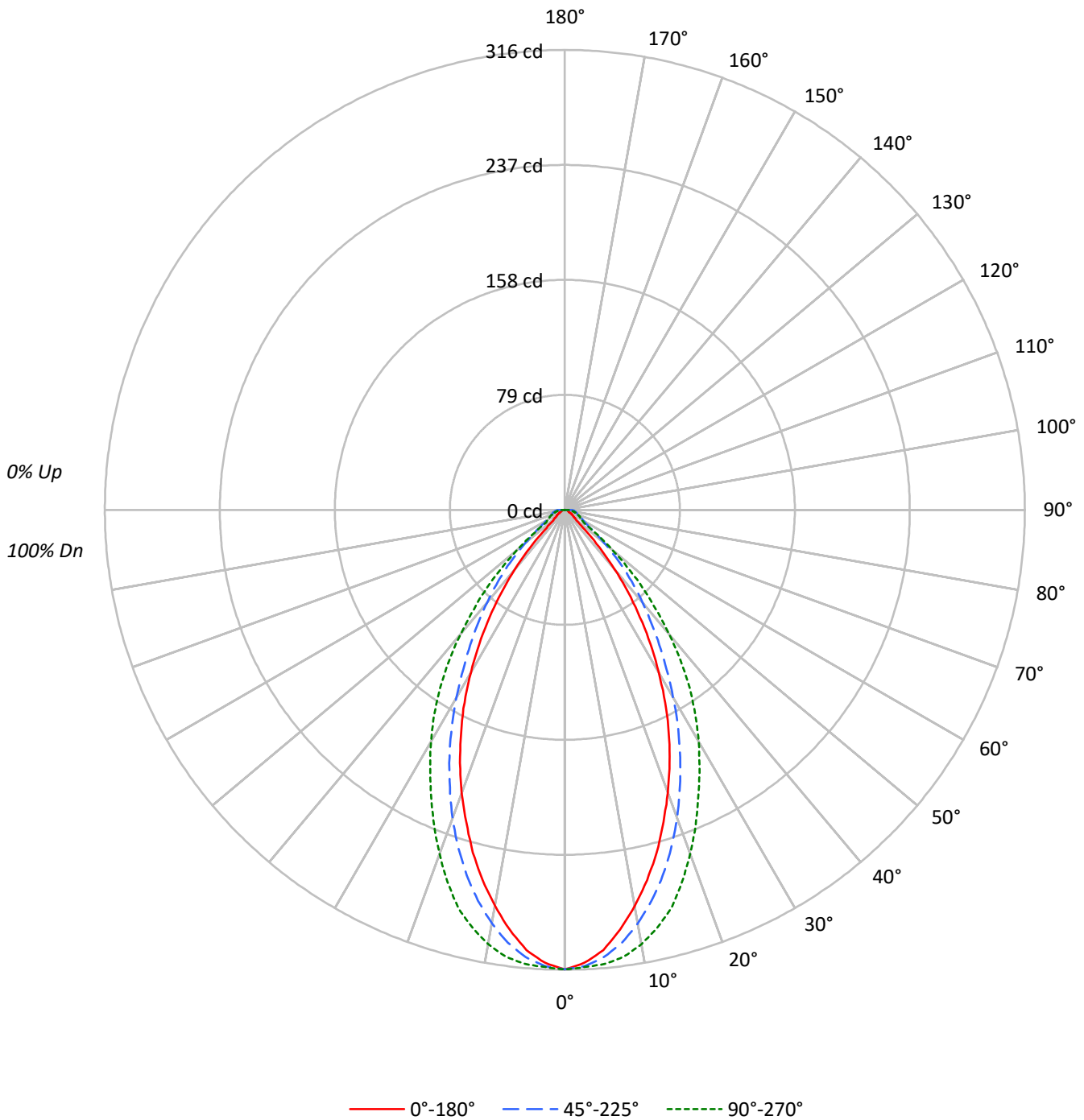
Lumens per Lamp: N/A
Luminaire Lumens: 340.4 lumens
Efficiency: N/A
Efficacy: 19.6 lumens/watt
Spacing Criteria (0/90/45): 0.79 / 0.95 / 0.9
Luminous Opening: Rectangular (W 0.15' x L: 4' x H: 0')
CIE Type: Direct

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	112	108	105	102	109	106	103	101	102	100	97	98	96	95	95	93	92	90				90
2	105	99	94	90	102	97	92	89	94	90	87	91	87	85	88	85	83	81				81
3	98	91	85	80	96	89	84	79	86	82	78	84	80	77	82	78	75	74				74
4	92	83	77	72	90	82	76	71	80	75	70	78	73	70	76	72	69	67				67
5	87	77	70	65	85	76	70	65	74	69	64	72	68	64	71	67	63	61				61
6	82	72	65	60	80	71	64	59	69	63	59	68	63	59	66	62	58	57				57
7	77	67	60	55	76	66	59	55	65	59	54	63	58	54	62	57	54	52				52
8	73	62	55	51	72	62	55	51	61	55	50	59	54	50	58	54	50	48				48
9	69	58	52	47	68	58	51	47	57	51	47	56	51	47	55	50	47	45				45
10	66	55	48	44	65	54	48	44	54	48	44	53	47	44	52	47	44	42				42

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	5825	5825	5825
5°	5624	5714	5803
10°	5179	5406	5677
15°	4657	4969	5408
20°	4063	4430	4941
25°	3437	3818	4420
30°	2744	3170	3918
35°	2030	2548	3365
40°	1281	1997	2681
45°	506	1501	1973
50°	261	1008	1214
55°	216	663	544
60°	155	535	491
65°	131	502	502
70°	129	523	491
75°	171	606	520
80°	255	776	574
85°	381	1270	762

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°
 Vertical Angle: 87.5°
 Luminance: 2538 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	28.9	8.5
10°-20°	72.9	21.4
20°-30°	86.7	25.5
30°-40°	72.1	21.2
40°-50°	40.3	11.8
50°-60°	16.3	4.8
60°-70°	10.4	3.1
70°-80°	7.8	2.3
80°-90°	5.0	1.5
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°	188.5	55.4
0°-40°	260.6	76.6
0°-60°	317.2	93.2
0°-90°	340.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	340.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	316	316	316	316	316	
5°	304	309	308	311	313	28
15°	244	251	260	273	283	68
25°	169	175	188	202	217	77
35°	90	99	113	132	149	56
45°	19	33	58	67	76	18
55°	7	14	21	20	17	6
65°	3	12	12	11	12	3
75°	2	8	8	8	7	3
85°	2	5	6	5	4	2
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	315.7	315.7	315.7	315.7	315.7
2.5°	311.5	316.3	313.9	313.9	314.5
5°	303.6	309.1	308.5	310.9	313.3
7.5°	290.9	297.0	300.0	305.5	309.7
10°	276.4	283.1	288.5	297.0	303.0
12.5°	260.7	267.3	275.2	286.1	294.0
15°	243.8	251.0	260.1	273.4	283.1
17.5°	225.0	232.9	243.2	257.7	268.0
20°	206.9	214.7	225.6	240.1	251.6
22.5°	188.1	194.8	206.3	220.8	234.7
25°	168.8	175.4	187.5	202.0	217.1
27.5°	149.4	156.1	168.2	183.3	200.2
30°	128.8	136.1	148.8	165.7	183.9
32.5°	109.5	116.7	130.0	148.8	166.9
35°	90.1	98.6	113.1	131.9	149.4
37.5°	71.4	81.1	97.4	114.9	130.6
40°	53.2	63.5	82.9	98.0	111.3
42.5°	35.1	47.2	69.6	82.3	92.5
45°	19.4	32.7	57.5	67.1	75.6
47.5°	10.9	21.2	45.4	53.2	58.1
50°	9.1	15.7	35.1	40.5	42.3
52.5°	7.3	14.5	26.6	29.6	28.4
55°	6.7	13.9	20.6	20.0	16.9
57.5°	5.4	13.9	16.3	14.5	14.5
60°	4.2	13.3	14.5	12.7	13.3
62.5°	3.6	12.7	13.3	12.1	12.1
65°	3.0	12.1	11.5	10.9	11.5
67.5°	2.4	10.9	10.9	10.3	10.3
70°	2.4	10.3	9.7	9.1	9.1
72.5°	2.4	9.1	9.1	8.5	8.5
75°	2.4	8.5	8.5	7.9	7.3
77.5°	2.4	7.3	7.9	7.3	6.7
80°	2.4	6.7	7.3	6.7	5.4
82.5°	2.4	6.0	6.7	6.0	4.8
85°	1.8	5.4	6.0	5.4	3.6
87.5°	1.8	5.4	6.0	4.8	3.0
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	4.48	5.70	4.84	6.01	6.33	5.56	6.77	5.92	7.09	7.40
	3H	5.81	6.90	6.19	7.23	7.59	7.60	8.68	7.98	9.01	9.38
	4H	6.39	7.40	6.79	7.75	8.14	8.56	9.57	8.96	9.92	10.31
	6H	6.96	7.88	7.37	8.26	8.65	9.51	10.44	9.92	10.81	11.20
	8H	7.28	8.16	7.71	8.55	8.95	9.95	10.83	10.38	11.22	11.63
	12H	7.58	8.42	8.01	8.80	9.23	10.36	11.20	10.80	11.59	12.02
4H	2H	5.45	6.46	5.85	6.81	7.19	6.24	7.25	6.64	7.60	7.98
	3H	7.48	8.31	7.89	8.72	9.12	8.53	9.36	8.94	9.77	10.17
	4H	8.57	9.31	9.00	9.73	10.18	9.69	10.43	10.12	10.85	11.30
	6H	9.44	10.09	9.91	10.54	11.00	10.86	11.51	11.32	11.95	12.42
	8H	9.85	10.45	10.32	10.90	11.37	11.41	12.02	11.88	12.46	12.94
	12H	10.22	10.75	10.71	11.24	11.71	11.95	12.48	12.43	12.96	13.44
8H	4H	9.34	9.95	9.81	10.40	10.87	10.24	10.85	10.71	11.29	11.77
	6H	10.69	11.18	11.19	11.68	12.16	11.70	12.19	12.20	12.69	13.17
	8H	11.39	11.84	11.92	12.36	12.85	12.45	12.89	12.97	13.41	13.90
	12H	12.07	12.47	12.59	12.96	13.53	13.22	13.62	13.74	14.11	14.68
12H	4H	9.50	10.03	9.99	10.52	10.99	10.35	10.88	10.84	11.37	11.84
	6H	11.01	11.46	11.54	11.97	12.47	11.93	12.37	12.45	12.89	13.38
	8H	11.90	12.30	12.42	12.79	13.36	12.82	13.21	13.33	13.71	14.28