

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: P1058402

Luminaire Tested: S122RDR-H485D930-X4F0-XX-UDD-BVL-S

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1058402
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-H485D930-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: 3000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

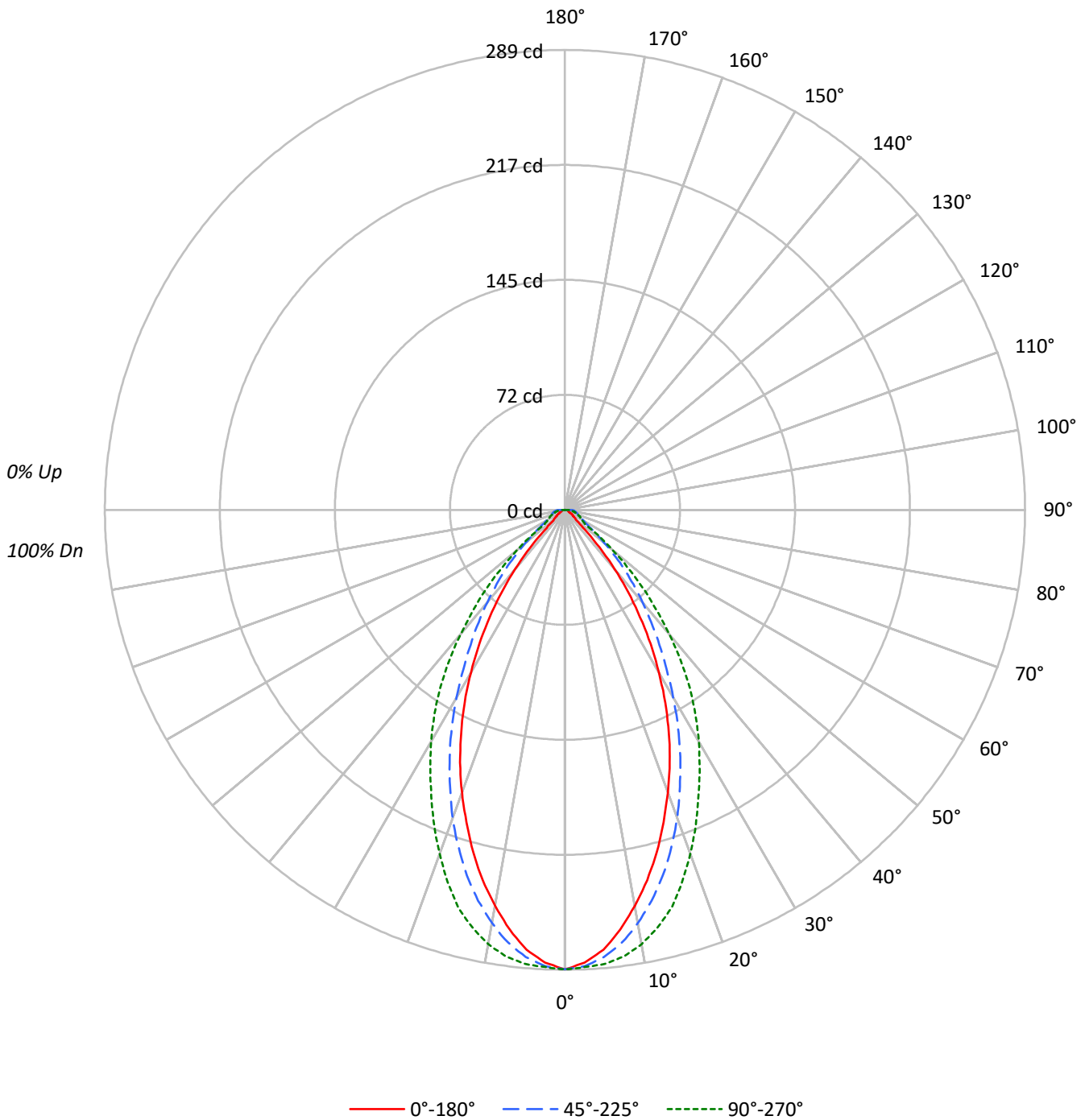
Lumens per Lamp: N/A
Luminaire Lumens: 311.2 lumens
Efficiency: N/A
Efficacy: 17.9 lumens/watt
Spacing Criteria (0/90/45): 0.79 / 0.95 / 0.9
Luminous Opening: Rectangular (W 0.15' x L: 4' x H: 0')
CIE Type: Direct

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	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	112	108	105	102	109	106	103	101	102	100	97	98	96	95	95	93	92	90
2	105	99	94	90	102	97	92	89	94	90	87	91	87	85	88	85	83	81
3	98	91	85	80	96	89	84	79	86	82	78	84	80	77	82	78	75	74
4	92	83	77	72	90	82	76	71	80	75	70	78	73	70	76	72	69	67
5	87	77	70	65	85	76	70	65	74	69	64	72	68	64	71	67	63	61
6	82	72	65	60	80	71	64	59	69	63	59	68	63	59	66	62	58	57
7	77	67	60	55	76	66	59	55	65	59	54	63	58	54	62	57	54	52
8	73	62	55	51	72	62	55	51	61	55	50	59	54	50	58	54	50	48
9	69	58	52	47	68	58	51	47	57	51	47	56	51	47	55	50	47	45
10	66	55	48	44	65	54	48	44	54	48	44	53	47	44	52	47	44	42

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	5327	5327	5327
5°	5142	5223	5307
10°	4735	4943	5192
15°	4258	4543	4944
20°	3713	4051	4518
25°	3142	3490	4041
30°	2510	2898	3582
35°	1856	2329	3077
40°	1173	1826	2452
45°	462	1370	1803
50°	238	921	1111
55°	196	605	499
60°	144	491	450
65°	122	458	458
70°	119	475	448
75°	157	549	471
80°	234	701	531
85°	360	1164	699

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°
 Vertical Angle: 87.5°
 Luminance: 2327 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	26.4	8.5
10°-20°	66.7	21.4
20°-30°	79.3	25.5
30°-40°	65.9	21.2
40°-50°	36.8	11.8
50°-60°	14.9	4.8
60°-70°	9.5	3.1
70°-80°	7.1	2.3
80°-90°	4.5	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°	172.4	55.4
0°-40°	238.3	76.6
0°-60°	290.0	93.2
0°-90°	311.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	311.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	289	289	289	289	289	
5°	278	283	282	284	286	26
15°	223	230	238	250	259	62
25°	154	160	171	185	198	70
35°	82	90	103	121	137	51
45°	18	30	52	61	69	17
55°	6	13	19	18	16	5
65°	3	11	10	10	10	3
75°	2	8	8	7	7	2
85°	2	5	6	5	3	2
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	288.7	288.7	288.7	288.7	288.7
2.5°	284.8	289.2	287.0	287.0	287.6
5°	277.6	282.6	282.0	284.3	286.5
7.5°	266.0	271.5	274.3	279.3	283.1
10°	252.7	258.8	263.8	271.5	277.1
12.5°	238.4	244.4	251.6	261.6	268.8
15°	222.9	229.5	237.8	250.0	258.8
17.5°	205.7	212.9	222.3	235.6	245.0
20°	189.1	196.3	206.3	219.6	230.1
22.5°	172.0	178.1	188.6	201.9	214.6
25°	154.3	160.4	171.4	184.7	198.5
27.5°	136.6	142.7	153.7	167.6	183.1
30°	117.8	124.4	136.0	151.5	168.1
32.5°	100.1	106.7	118.9	136.0	152.6
35°	82.4	90.1	103.4	120.6	136.6
37.5°	65.3	74.1	89.0	105.1	119.5
40°	48.7	58.1	75.8	89.6	101.8
42.5°	32.1	43.1	63.6	75.2	84.6
45°	17.7	29.9	52.5	61.4	69.1
47.5°	10.0	19.4	41.5	48.7	53.1
50°	8.3	14.4	32.1	37.1	38.7
52.5°	6.6	13.3	24.3	27.1	26.0
55°	6.1	12.7	18.8	18.2	15.5
57.5°	5.0	12.7	14.9	13.3	13.3
60°	3.9	12.2	13.3	11.6	12.2
62.5°	3.3	11.6	12.2	11.1	11.1
65°	2.8	11.1	10.5	10.0	10.5
67.5°	2.2	10.0	10.0	9.4	9.4
70°	2.2	9.4	8.8	8.3	8.3
72.5°	2.2	8.3	8.3	7.7	7.7
75°	2.2	7.7	7.7	7.2	6.6
77.5°	2.2	6.6	7.2	6.6	6.1
80°	2.2	6.1	6.6	6.1	5.0
82.5°	2.2	5.5	6.1	5.5	4.4
85°	1.7	5.0	5.5	5.0	3.3
87.5°	1.7	5.0	5.5	4.4	2.8
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	4.17	5.39	4.54	5.70	6.02	5.26	6.48	5.63	6.80	7.11
	3H	5.51	6.59	5.89	6.92	7.29	7.29	8.37	7.67	8.70	9.07
	4H	6.08	7.09	6.48	7.44	7.83	8.24	9.25	8.64	9.60	9.98
	6H	6.64	7.57	7.06	7.94	8.34	9.19	10.11	9.60	10.49	10.88
	8H	6.96	7.84	7.40	8.23	8.64	9.63	10.51	10.06	10.90	11.31
	12H	7.28	8.12	7.71	8.50	8.93	10.05	10.89	10.48	11.28	11.71
4H	2H	5.14	6.15	5.54	6.50	6.88	5.94	6.95	6.34	7.30	7.69
	3H	7.17	8.00	7.58	8.40	8.81	8.21	9.05	8.63	9.45	9.86
	4H	8.24	8.98	8.67	9.40	9.85	9.36	10.11	9.79	10.53	10.97
	6H	9.11	9.75	9.57	10.20	10.67	10.53	11.18	11.00	11.63	12.09
	8H	9.52	10.12	9.99	10.57	11.04	11.09	11.69	11.56	12.14	12.61
	12H	9.90	10.44	10.39	10.92	11.40	11.63	12.16	12.12	12.65	13.12
8H	4H	9.01	9.61	9.48	10.06	10.53	9.91	10.51	10.38	10.96	11.43
	6H	10.35	10.84	10.85	11.34	11.82	11.36	11.86	11.87	12.36	12.84
	8H	11.06	11.51	11.58	12.02	12.52	12.12	12.57	12.65	13.09	13.58
	12H	11.76	12.15	12.28	12.65	13.22	12.91	13.30	13.43	13.80	14.37
12H	4H	9.16	9.70	9.65	10.18	10.66	10.01	10.55	10.50	11.03	11.51
	6H	10.67	11.12	11.19	11.63	12.13	11.59	12.04	12.11	12.55	13.05
	8H	11.57	11.96	12.09	12.46	13.03	12.49	12.89	13.01	13.38	13.95