

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: P1057981

Luminaire Tested: S122RDRP-S485D850-X4F0-XX-UDD-SVL-B

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2024
Report Number: P1057981
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2406-143-20)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S122RDRP-S485D850-X4F0-XX-UDD-SVL-B
Description: DEFINE 2 BLACK REGRESSED DIRECT RECESSED HOUSING WITH SILVER STRAIGHT BLADE
LOUVER WITH DIFFUSER
CORE LIGHT ENGINE
Light Source: 5000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

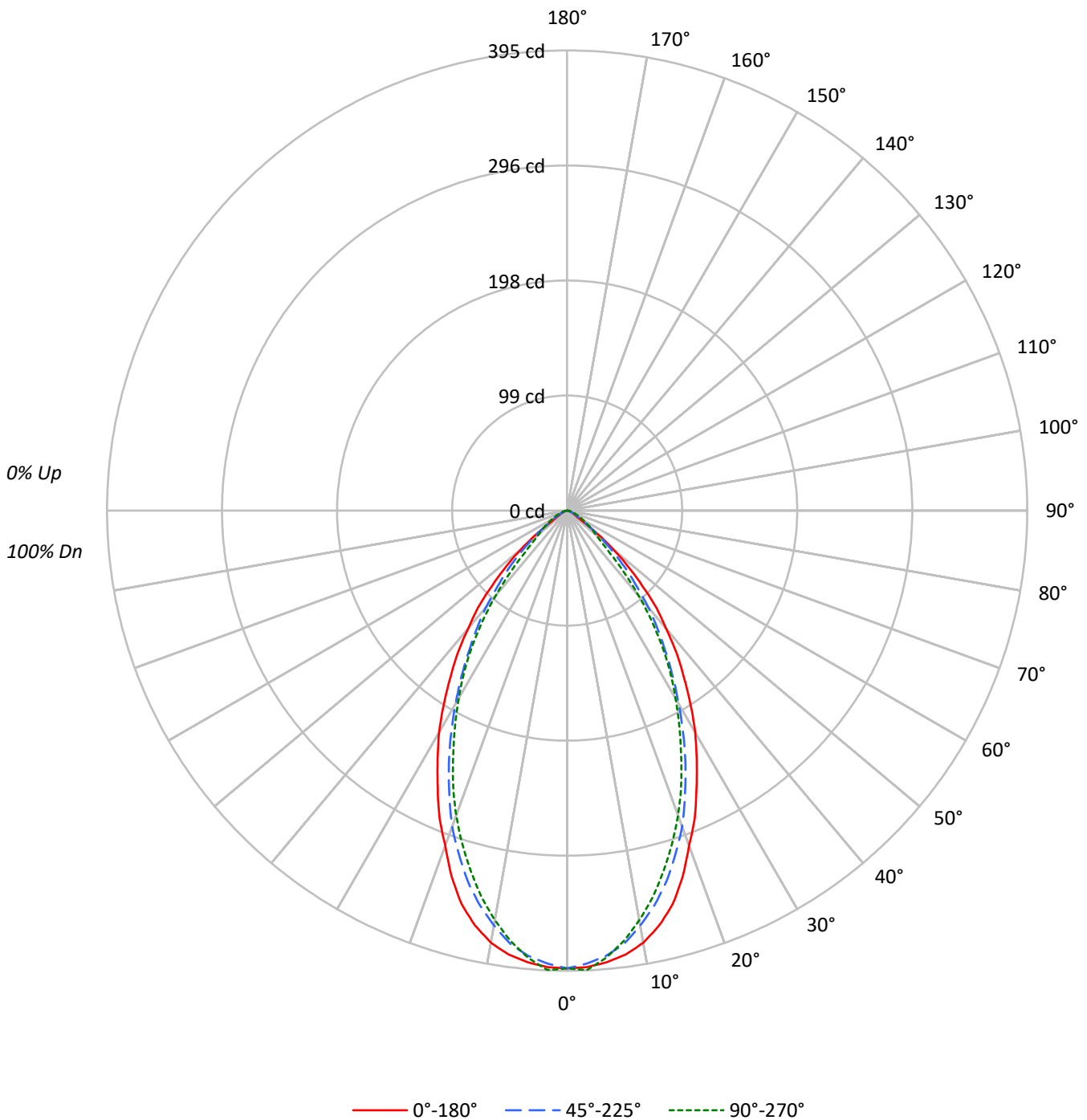
Lumens per Lamp: N/A
Luminaire Lumens: 422.7 lumens
Efficiency: N/A
Efficacy: 21.6 lumens/watt
Spacing Criteria (0/90/45): 0.93 / 0.85 / 0.91
Luminous Opening: Rectangular (W 0.15' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 19.6
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	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	113	110	107	104	110	107	105	103	103	101	99	100	98	96	96	95	94	92				92
2	106	101	96	92	104	99	95	91	96	92	89	93	90	87	90	87	85	84				84
3	100	93	87	82	98	91	86	82	88	84	80	86	82	79	84	80	78	76				76
4	94	85	79	74	92	84	78	74	82	77	73	80	76	72	78	74	71	70				70
5	88	79	72	68	87	78	72	67	76	71	67	74	70	66	73	69	65	64				64
6	83	73	67	62	82	72	66	62	71	65	61	69	64	61	68	64	60	59				59
7	79	68	62	57	77	68	61	57	66	60	56	65	60	56	64	59	56	54				54
8	74	64	57	53	73	63	57	52	62	56	52	61	56	52	60	55	52	50				50
9	70	60	53	49	69	59	53	49	58	52	48	57	52	48	56	52	48	47				47
10	67	56	50	45	66	56	49	45	55	49	45	54	49	45	53	48	45	44				44

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	7252	7252	7252
5°	7207	7105	7135
10°	7056	6775	6687
15°	6684	6295	6115
20°	6007	5669	5469
25°	5351	4888	4711
30°	4681	4078	3961
35°	3940	3305	3199
40°	3175	2609	2305
45°	2375	1884	1373
50°	1487	1217	901
55°	505	656	730
60°	288	406	579
65°	205	275	445
70°	167	210	340
75°	114	171	278
80°	85	170	255
85°	0	0	169

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 2375 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	36.2	8.6
10°-20°	92.7	21.9
20°-30°	111.7	26.4
30°-40°	95.4	22.6
40°-50°	55.9	13.2
50°-60°	20.2	4.8
60°-70°	7.2	1.7
70°-80°	2.9	0.7
80°-90°	0.5	0.1
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°	240.6	56.9
0°-40°	336.0	79.5
0°-60°	412.1	97.5
0°-90°	422.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	422.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	393	393	393	393	393	
5°	389	390	384	385	385	37
15°	350	344	330	323	320	97
25°	263	252	240	236	231	121
35°	175	162	147	145	142	109
45°	91	82	72	60	53	70
55°	16	22	20	21	23	19
65°	5	6	6	9	10	5
75°	2	2	2	3	4	2
85°	0	0	0	1	1	0
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	393.0	393.0	393.0	393.0	393.0
2.5°	392.2	393.0	389.1	393.0	394.6
5°	389.1	389.9	383.6	385.2	385.2
7.5°	384.4	383.6	375.0	373.4	372.6
10°	376.6	374.2	361.6	359.3	356.9
12.5°	364.8	360.1	346.7	342.8	339.7
15°	349.9	344.4	329.5	323.2	320.1
17.5°	329.5	323.2	309.1	302.8	299.7
20°	305.9	299.7	288.7	281.6	278.5
22.5°	286.3	276.1	264.4	259.7	255.7
25°	262.8	251.8	240.1	236.1	231.4
27.5°	240.8	227.5	215.7	212.6	208.7
30°	219.7	205.5	191.4	191.4	185.9
32.5°	196.9	183.6	168.7	167.9	164.7
35°	174.9	161.6	146.7	145.1	142.0
37.5°	154.5	141.2	127.1	122.4	118.5
40°	131.8	120.0	108.3	100.4	95.7
42.5°	113.7	100.4	88.6	79.2	73.0
45°	91.0	81.6	72.2	60.4	52.6
47.5°	70.6	64.3	56.5	43.1	39.2
50°	51.8	48.6	42.4	32.2	31.4
52.5°	32.9	34.5	30.6	25.1	27.5
55°	15.7	22.0	20.4	21.2	22.7
57.5°	10.2	11.0	14.9	17.3	18.8
60°	7.8	7.8	11.0	14.1	15.7
62.5°	6.3	6.3	8.6	11.8	12.6
65°	4.7	5.5	6.3	8.6	10.2
67.5°	3.9	3.9	4.7	7.1	7.8
70°	3.1	3.1	3.9	5.5	6.3
72.5°	2.4	2.4	3.1	4.7	4.7
75°	1.6	2.4	2.4	3.1	3.9
77.5°	1.6	1.6	1.6	2.4	3.1
80°	0.8	0.8	1.6	1.6	2.4
82.5°	0.8	0.8	0.8	0.8	1.6
85°	0.0	0.0	0.0	0.8	0.8
87.5°	0.0	0.0	0.0	0.0	0.0
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	2.77	3.94	3.14	4.25	4.56	6.17	7.34	6.54	7.65	7.96
	3H	3.28	4.30	3.66	4.64	5.00	6.90	7.92	7.28	8.26	8.62
	4H	3.43	4.37	3.83	4.73	5.11	7.11	8.06	7.52	8.41	8.80
	6H	3.51	4.37	3.92	4.75	5.14	7.27	8.13	7.68	8.51	8.90
	8H	3.51	4.33	3.95	4.72	5.13	7.30	8.12	7.73	8.51	8.92
	12H	3.48	4.26	3.91	4.64	5.07	7.30	8.08	7.74	8.47	8.90
4H	2H	3.08	4.03	3.49	4.38	4.77	6.14	7.09	6.55	7.44	7.83
	3H	3.73	4.50	4.15	4.91	5.31	7.01	7.78	7.43	8.19	8.59
	4H	3.99	4.67	4.42	5.09	5.54	7.29	7.97	7.73	8.39	8.84
	6H	4.11	4.70	4.58	5.15	5.62	7.52	8.10	7.99	8.55	9.02
	8H	4.13	4.68	4.60	5.13	5.60	7.57	8.11	8.04	8.56	9.04
	12H	4.10	4.58	4.59	5.06	5.54	7.59	8.07	8.08	8.56	9.03
8H	4H	4.10	4.64	4.57	5.09	5.56	7.22	7.77	7.69	8.22	8.69
	6H	4.27	4.71	4.78	5.21	5.70	7.49	7.93	7.99	8.43	8.91
	8H	4.32	4.72	4.85	5.24	5.73	7.55	7.95	8.08	8.47	8.96
	12H	4.30	4.65	4.82	5.14	5.72	7.62	7.97	8.14	8.46	9.04
12H	4H	4.08	4.56	4.57	5.05	5.52	7.17	7.65	7.66	8.14	8.61
	6H	4.27	4.67	4.80	5.19	5.68	7.44	7.83	7.97	8.35	8.85
	8H	4.35	4.70	4.87	5.19	5.77	7.53	7.88	8.05	8.37	8.95