

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: P1058388

Luminaire Tested: S122RDR-H485D850-X4F0-XX-UDD-SVL-W

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1058388
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-56)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S122RDR-H485D850-X4F0-XX-UDD-SVL-W
Description: DEFINE 2 WHITE REGRESSED DIRECT RECESSED HOUSING WITH SILVER STRAIGHT BLADE LOUVER WITH DIFFUSER
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 5000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

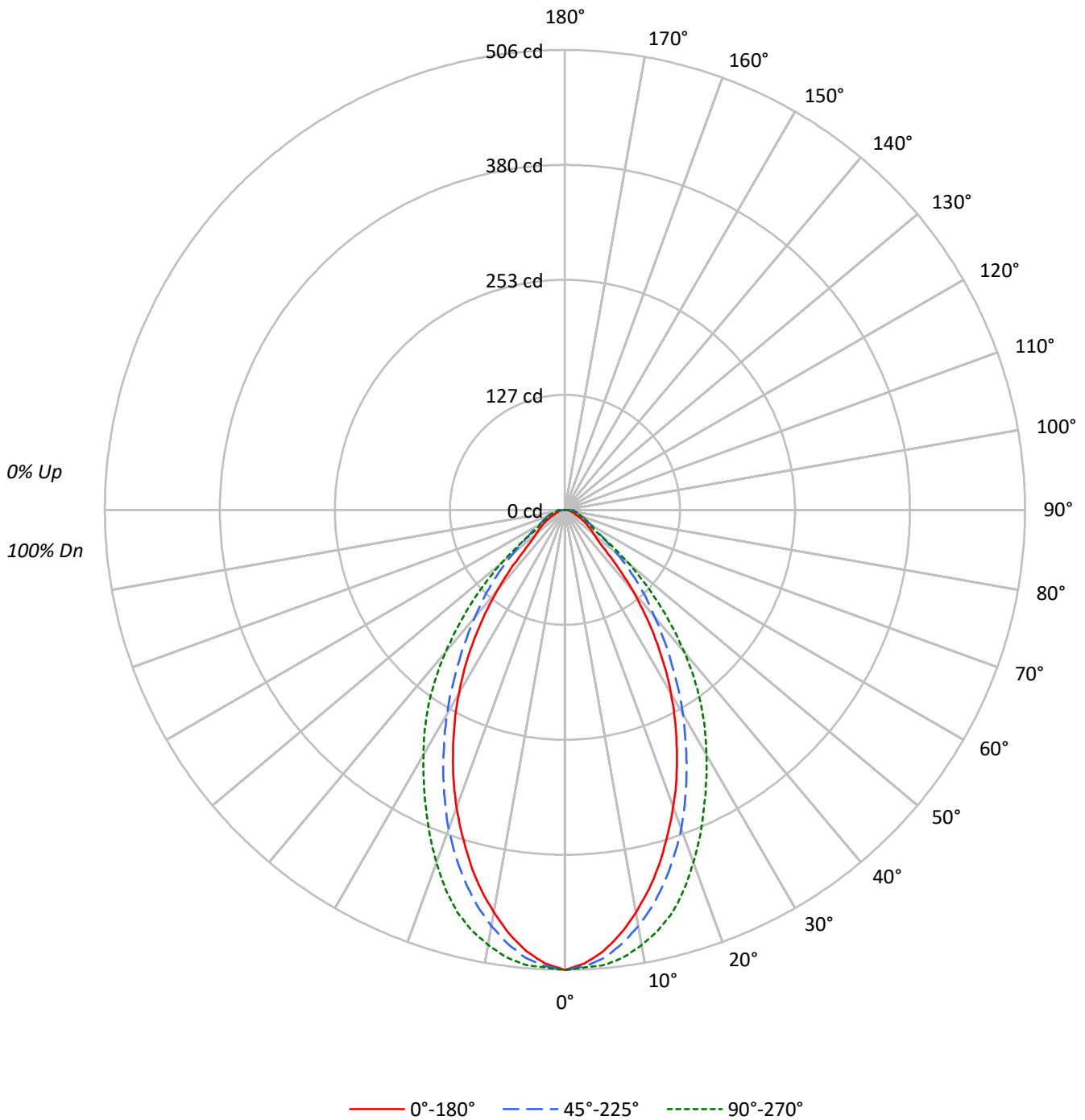
Lumens per Lamp: N/A
Luminaire Lumens: 614.1 lumens
Efficiency: N/A
Efficacy: 35.3 lumens/watt
Spacing Criteria (0/90/45): 0.83 / 0.98 / 0.95
Luminous Opening: Rectangular (W 0.15' x L: 4' x H: 0')
CIE Type: Direct

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

TEST NUMBER: P1058388

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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	111	108	105	102	109	106	103	100	102	99	97	98	96	94	94	93	91	89				89
2	104	98	93	88	102	96	91	87	93	89	85	90	86	84	87	84	82	80				80
3	97	89	83	78	95	88	82	77	85	80	76	83	78	75	80	77	74	72				72
4	91	82	75	70	89	81	74	69	78	73	68	76	71	68	74	70	67	65				65
5	86	75	68	63	84	74	68	63	72	67	62	71	65	61	69	64	61	59				59
6	80	70	62	57	79	69	62	57	67	61	57	66	60	56	64	59	56	54				54
7	76	65	57	52	74	64	57	52	62	56	52	61	56	52	60	55	51	50				50
8	71	60	53	48	70	59	53	48	58	52	48	57	52	48	56	51	47	46				46
9	67	56	49	45	66	56	49	45	55	49	44	54	48	44	53	48	44	42				42
10	64	53	46	41	63	52	46	41	51	45	41	50	45	41	50	45	41	39				39

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	9342	9342	9342
5°	9030	9169	9308
10°	8428	8711	9106
15°	7689	8090	8751
20°	6839	7342	8110
25°	5927	6448	7366
30°	4969	5529	6635
35°	3915	4575	5879
40°	2789	3698	4912
45°	1649	2925	3807
50°	1188	2116	2592
55°	991	1525	1306
60°	805	1222	1111
65°	655	1083	1017
70°	566	1057	977
75°	535	1069	962
80°	563	1275	1041
85°	805	2075	1270

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 3807 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	46.4	7.6
10°-20°	119.3	19.4
20°-30°	147.2	24.0
30°-40°	130.9	21.3
40°-50°	83.5	13.6
50°-60°	40.1	6.5
60°-70°	23.5	3.8
70°-80°	15.0	2.4
80°-90°	8.0	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°	312.9	51.0
0°-40°	443.8	72.3
0°-60°	567.5	92.4
0°-90°	614.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	614.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	506	506	506	506	506	
5°	488	496	495	498	502	45
15°	402	412	424	443	458	112
25°	291	302	317	339	362	133
35°	174	187	203	234	261	108
45°	63	82	112	130	146	53
55°	31	40	47	46	41	28
65°	15	27	25	23	23	15
75°	8	16	15	14	14	8
85°	4	9	10	8	6	4
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	506.3	506.3	506.3	506.3	506.3
2.5°	499.5	507.8	502.5	502.5	504.0
5°	487.5	496.5	495.0	498.0	502.5
7.5°	470.2	479.9	481.4	489.7	496.5
10°	449.8	460.4	464.9	476.9	486.0
12.5°	427.3	437.8	446.1	461.1	473.9
15°	402.5	412.2	423.5	443.1	458.1
17.5°	375.4	388.2	399.4	419.8	437.1
20°	348.3	360.3	373.9	393.4	413.0
22.5°	320.5	331.7	345.3	365.6	388.2
25°	291.1	302.4	316.7	339.3	361.8
27.5°	262.5	273.8	287.4	312.2	336.3
30°	233.2	244.5	259.5	285.1	311.4
32.5°	203.9	215.9	230.9	258.8	286.6
35°	173.8	187.3	203.1	233.9	261.0
37.5°	144.4	158.0	177.5	207.6	233.2
40°	115.8	131.6	153.5	180.5	203.9
42.5°	88.0	105.3	132.4	154.2	174.5
45°	63.2	82.0	112.1	130.1	145.9
47.5°	48.1	61.7	92.5	106.8	118.1
50°	41.4	49.6	73.7	84.3	90.3
52.5°	36.1	43.6	58.7	63.9	63.9
55°	30.8	39.9	47.4	45.9	40.6
57.5°	26.3	36.1	39.1	33.1	34.6
60°	21.8	33.1	33.1	29.3	30.1
62.5°	18.1	30.8	28.6	25.6	26.3
65°	15.0	27.1	24.8	22.6	23.3
67.5°	12.0	24.1	21.8	20.3	20.3
70°	10.5	21.8	19.6	18.1	18.1
72.5°	9.0	18.8	17.3	15.8	15.8
75°	7.5	16.5	15.0	14.3	13.5
77.5°	6.8	14.3	13.5	12.0	11.3
80°	5.3	12.0	12.0	11.3	9.8
82.5°	4.5	10.5	10.5	9.8	8.3
85°	3.8	9.0	9.8	8.3	6.0
87.5°	3.0	8.3	8.3	6.8	4.5
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	9.43	10.71	9.80	11.02	11.34	9.22	10.50	9.59	10.81	11.13
	3H	10.66	11.80	11.04	12.13	12.49	10.82	11.95	11.20	12.28	12.65
	4H	11.11	12.17	11.52	12.52	12.91	11.53	12.59	11.94	12.94	13.33
	6H	11.50	12.47	11.91	12.84	13.24	12.19	13.16	12.60	13.53	13.93
	8H	11.65	12.57	12.08	12.96	13.37	12.52	13.44	12.95	13.83	14.24
	12H	11.81	12.69	12.24	13.08	13.51	12.82	13.70	13.25	14.08	14.51
4H	2H	9.98	11.04	10.38	11.39	11.77	9.82	10.88	10.22	11.23	11.61
	3H	11.68	12.55	12.09	12.95	13.36	11.66	12.53	12.07	12.93	13.34
	4H	12.47	13.25	12.90	13.67	14.11	12.53	13.31	12.96	13.73	14.17
	6H	13.11	13.79	13.58	14.24	14.70	13.37	14.05	13.84	14.50	14.97
	8H	13.36	14.00	13.83	14.44	14.91	13.80	14.43	14.27	14.88	15.35
	12H	13.61	14.17	14.10	14.65	15.13	14.20	14.76	14.69	15.25	15.72
8H	4H	12.89	13.52	13.35	13.97	14.44	12.94	13.58	13.41	14.03	14.50
	6H	13.86	14.38	14.37	14.88	15.36	14.03	14.55	14.53	15.05	15.53
	8H	14.35	14.82	14.88	15.34	15.83	14.63	15.09	15.15	15.61	16.10
	12H	14.86	15.27	15.37	15.76	16.34	15.23	15.64	15.74	16.14	16.71
12H	4H	12.95	13.51	13.44	14.00	14.47	13.02	13.58	13.51	14.06	14.54
	6H	14.03	14.50	14.55	15.01	15.51	14.19	14.66	14.72	15.18	15.67
	8H	14.67	15.08	15.18	15.57	16.15	14.91	15.32	15.42	15.82	16.39