

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: P1058379

Luminaire Tested: S122RDR-H485D840-X4F0-XX-UDD-SVL-W

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1058379  
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-H485D840-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: 4000K CCT, 80 CRI LEDS  
Ballast/Driver: -

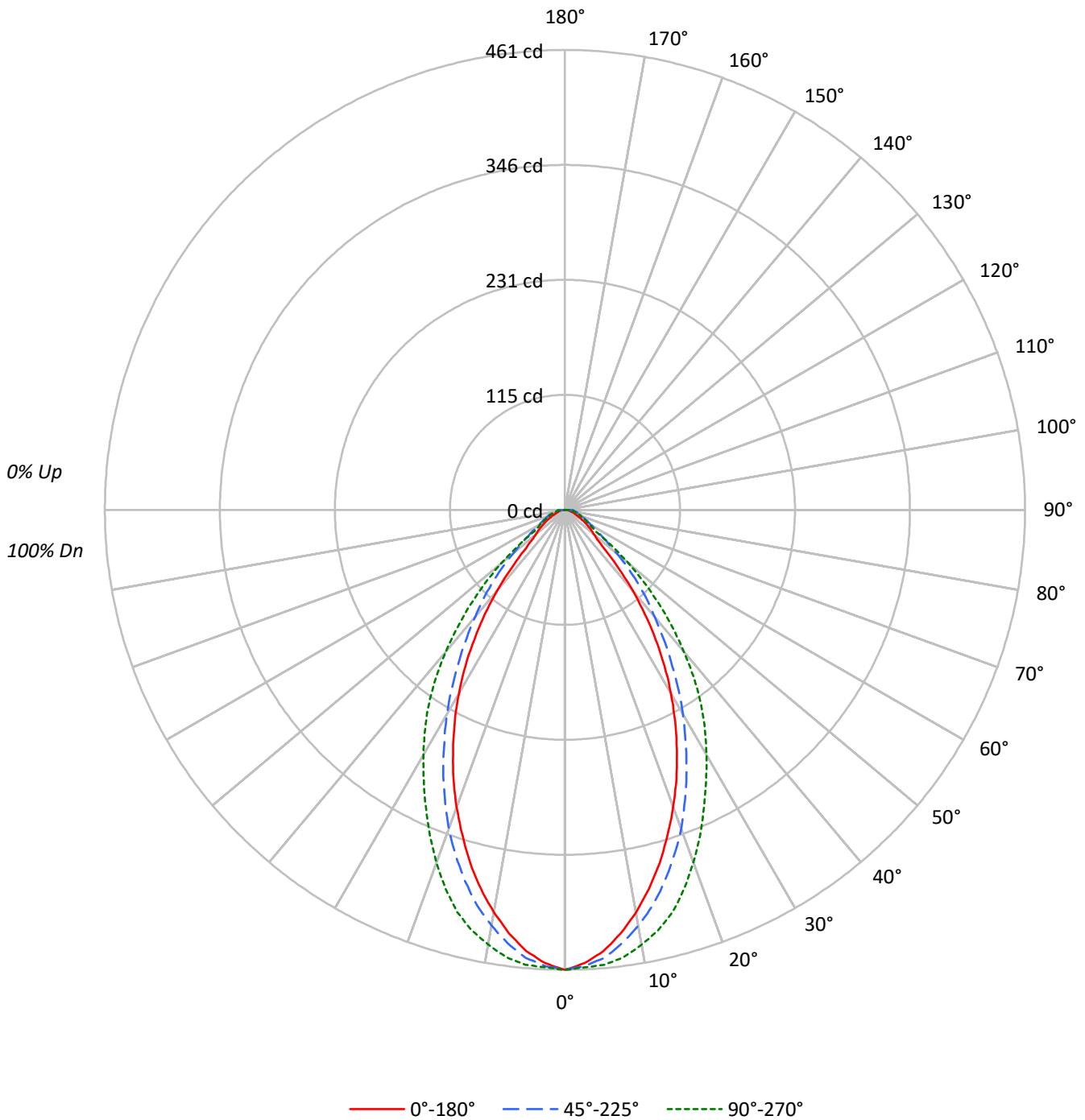
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 559.2 lumens  
Efficiency: N/A  
Efficacy: 32.1 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

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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°	8507	8507	8507
5°	8222	8348	8476
10°	7675	7931	8291
15°	7001	7368	7970
20°	6229	6684	7385
25°	5397	5872	6709
30°	4526	5035	6043
35°	3564	4167	5355
40°	2541	3365	4471
45°	1501	2664	3468
50°	1082	1926	2360
55°	904	1390	1190
60°	734	1111	1011
65°	598	987	926
70°	518	960	885
75°	492	977	877
80°	510	1169	946
85°	720	1884	1164

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 3468 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	42.3	7.6
10°-20°	108.6	19.4
20°-30°	134.0	24.0
30°-40°	119.2	21.3
40°-50°	76.1	13.6
50°-60°	36.5	6.5
60°-70°	21.4	3.8
70°-80°	13.7	2.5
80°-90°	7.3	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°	284.9	51.0
0°-40°	404.1	72.3
0°-60°	516.7	92.4
0°-90°	559.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	559.2	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	461	461	461	461	461	
5°	444	452	451	454	458	41
15°	366	375	386	404	417	102
25°	265	275	288	309	330	121
35°	158	171	185	213	238	98
45°	58	75	102	118	133	48
55°	28	36	43	42	37	25
65°	14	25	23	21	21	14
75°	7	15	14	13	12	8
85°	3	8	9	8	6	3
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	461.0	461.0	461.0	461.0	461.0
2.5°	454.8	462.4	457.6	457.6	459.0
5°	443.9	452.1	450.7	453.5	457.6
7.5°	428.1	437.0	438.4	445.9	452.1
10°	409.6	419.2	423.3	434.3	442.5
12.5°	389.1	398.7	406.2	419.9	431.6
15°	366.5	375.4	385.7	403.5	417.2
17.5°	341.8	353.5	363.7	382.2	398.0
20°	317.2	328.1	340.4	358.3	376.1
22.5°	291.8	302.1	314.4	332.9	353.5
25°	265.1	275.4	288.4	308.9	329.5
27.5°	239.1	249.3	261.7	284.3	306.2
30°	212.4	222.6	236.3	259.6	283.6
32.5°	185.6	196.6	210.3	235.6	261.0
35°	158.2	170.6	185.0	213.0	237.7
37.5°	131.5	143.9	161.7	189.1	212.4
40°	105.5	119.9	139.7	164.4	185.6
42.5°	80.1	95.9	120.6	140.4	158.9
45°	57.5	74.7	102.1	118.5	132.9
47.5°	43.8	56.2	84.3	97.3	107.5
50°	37.7	45.2	67.1	76.7	82.2
52.5°	32.9	39.7	53.4	58.2	58.2
55°	28.1	36.3	43.2	41.8	37.0
57.5°	24.0	32.9	35.6	30.1	31.5
60°	19.9	30.1	30.1	26.7	27.4
62.5°	16.4	28.1	26.0	23.3	24.0
65°	13.7	24.7	22.6	20.6	21.2
67.5°	11.0	21.9	19.9	18.5	18.5
70°	9.6	19.9	17.8	16.4	16.4
72.5°	8.2	17.1	15.8	14.4	14.4
75°	6.9	15.1	13.7	13.0	12.3
77.5°	6.2	13.0	12.3	11.0	10.3
80°	4.8	11.0	11.0	10.3	8.9
82.5°	4.1	9.6	9.6	8.9	7.5
85°	3.4	8.2	8.9	7.5	5.5
87.5°	2.7	7.5	7.5	6.2	4.1
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	9.11	10.39	9.48	10.70	11.02	8.89	10.17	9.26	10.48	10.80
	3H	10.35	11.48	10.73	11.81	12.18	10.49	11.62	10.87	11.95	12.32
	4H	10.80	11.86	11.20	12.21	12.59	11.20	12.26	11.61	12.61	13.00
	6H	11.18	12.16	11.60	12.53	12.92	11.86	12.83	12.27	13.20	13.60
	8H	11.34	12.26	11.77	12.65	13.05	12.19	13.11	12.62	13.50	13.90
	12H	11.49	12.37	11.92	12.76	13.19	12.48	13.37	12.92	13.75	14.18
4H	2H	9.66	10.72	10.06	11.07	11.45	9.49	10.54	9.89	10.90	11.28
	3H	11.36	12.23	11.77	12.63	13.04	11.32	12.19	11.74	12.60	13.00
	4H	12.15	12.94	12.59	13.36	13.80	12.20	12.98	12.63	13.40	13.84
	6H	12.80	13.48	13.26	13.92	14.39	13.05	13.72	13.51	14.17	14.64
	8H	13.05	13.68	13.52	14.13	14.60	13.47	14.10	13.94	14.55	15.02
	12H	13.29	13.85	13.78	14.34	14.81	13.87	14.43	14.36	14.91	15.39
8H	4H	12.57	13.20	13.04	13.65	14.12	12.62	13.25	13.09	13.70	14.17
	6H	13.55	14.07	14.05	14.57	15.05	13.71	14.23	14.21	14.72	15.20
	8H	14.04	14.51	14.56	15.03	15.52	14.30	14.76	14.82	15.28	15.77
	12H	14.54	14.95	15.06	15.45	16.02	14.90	15.31	15.41	15.81	16.38
12H	4H	12.64	13.20	13.13	13.68	14.16	12.69	13.25	13.18	13.74	14.21
	6H	13.72	14.19	14.24	14.70	15.20	13.87	14.34	14.39	14.86	15.35
	8H	14.36	14.77	14.87	15.26	15.84	14.58	15.00	15.10	15.49	16.06