

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: P1058424

Luminaire Tested: S122RDR-H485D940-X4F0-XX-UDD-SVL-W

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1058424
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-H485D940-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, 90 CRI LEDS
Ballast/Driver: -

Summary

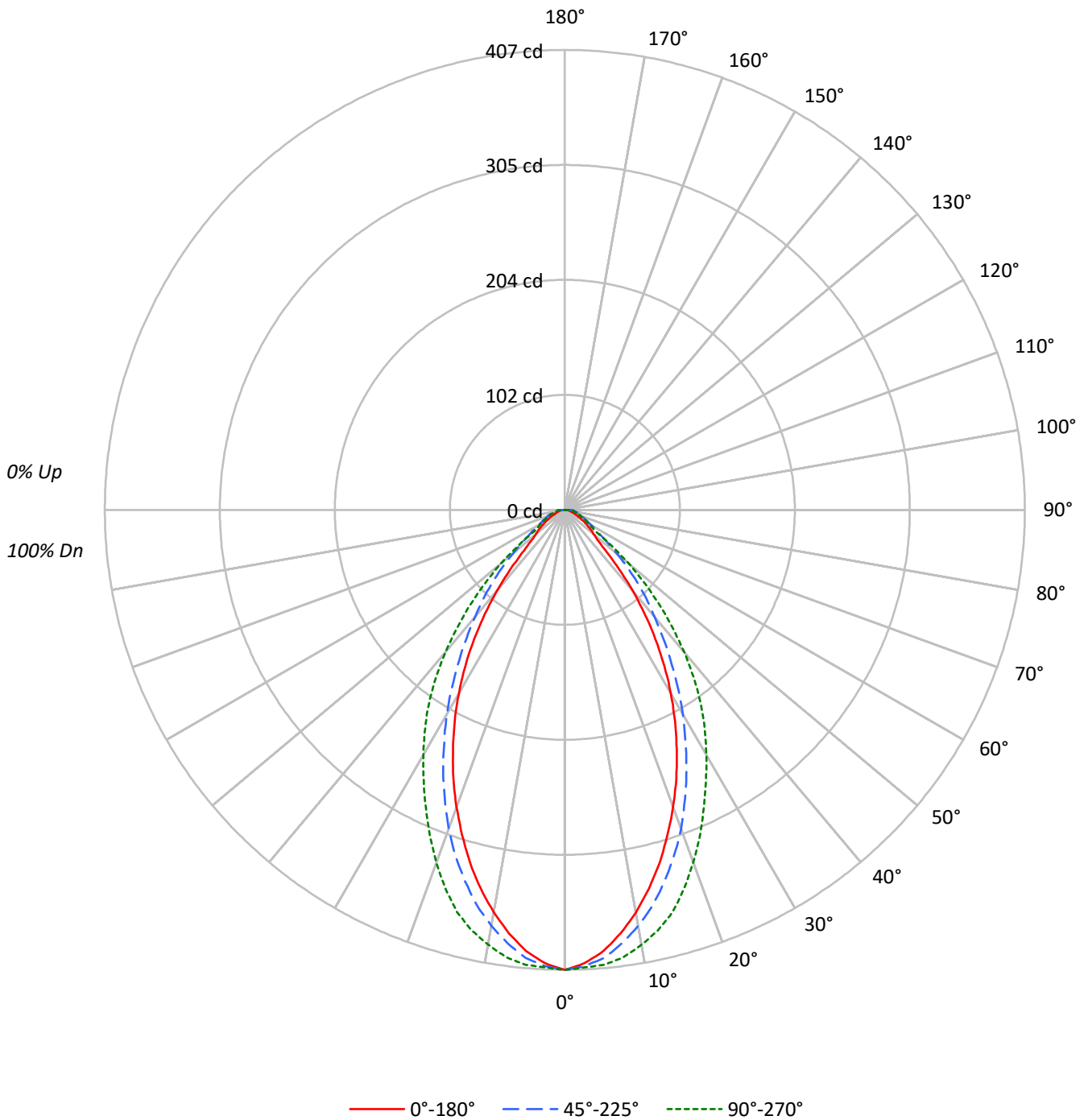
Lumens per Lamp: N/A
Luminaire Lumens: 493.8 lumens
Efficiency: N/A
Efficacy: 28.4 lumens/watt
Spacing Criteria (0/90/45): 0.83 / 0.98 / 0.95
Luminous Opening: Rectangular (W 0.15' x L: 4' x H: 0')
CIE Type: Direct

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°	7512	7512	7512
5°	7259	7372	7483
10°	6777	7004	7321
15°	6182	6505	7038
20°	5498	5903	6521
25°	4766	5184	5923
30°	3995	4447	5335
35°	3147	3679	4728
40°	2243	2972	3948
45°	1326	2351	3061
50°	956	1702	2084
55°	798	1226	1052
60°	646	982	893
65°	528	873	821
70°	459	847	782
75°	428	863	777
80°	446	1031	839
85°	635	1673	1016

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 3061 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	37.3	7.6
10°-20°	95.9	19.4
20°-30°	118.3	24.0
30°-40°	105.2	21.3
40°-50°	67.2	13.6
50°-60°	32.3	6.5
60°-70°	18.9	3.8
70°-80°	12.1	2.4
80°-90°	6.5	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°	251.6	51.0
0°-40°	356.8	72.3
0°-60°	456.3	92.4
0°-90°	493.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	493.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	407	407	407	407	407	
5°	392	399	398	400	404	36
15°	324	332	340	356	368	90
25°	234	243	255	273	291	107
35°	140	151	163	188	210	87
45°	51	66	90	105	117	43
55°	25	32	38	37	33	22
65°	12	22	20	18	19	12
75°	6	13	12	12	11	7
85°	3	7	8	7	5	3
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	407.1	407.1	407.1	407.1	407.1
2.5°	401.6	408.3	404.0	404.0	405.3
5°	391.9	399.2	398.0	400.4	404.0
7.5°	378.0	385.9	387.1	393.8	399.2
10°	361.7	370.2	373.8	383.5	390.7
12.5°	343.6	352.0	358.7	370.8	381.1
15°	323.6	331.5	340.5	356.3	368.4
17.5°	301.8	312.1	321.2	337.5	351.4
20°	280.0	289.7	300.6	316.3	332.1
22.5°	257.7	266.7	277.6	294.0	312.1
25°	234.1	243.2	254.6	272.8	290.9
27.5°	211.1	220.2	231.1	251.0	270.4
30°	187.5	196.6	208.7	229.2	250.4
32.5°	163.9	173.6	185.7	208.1	230.4
35°	139.7	150.6	163.3	188.1	209.9
37.5°	116.1	127.0	142.7	166.9	187.5
40°	93.1	105.8	123.4	145.2	163.9
42.5°	70.8	84.7	106.5	124.0	140.3
45°	50.8	65.9	90.1	104.6	117.3
47.5°	38.7	49.6	74.4	85.9	95.0
50°	33.3	39.9	59.3	67.7	72.6
52.5°	29.0	35.1	47.2	51.4	51.4
55°	24.8	32.1	38.1	36.9	32.7
57.5°	21.2	29.0	31.5	26.6	27.8
60°	17.5	26.6	26.6	23.6	24.2
62.5°	14.5	24.8	23.0	20.6	21.2
65°	12.1	21.8	20.0	18.1	18.8
67.5°	9.7	19.4	17.5	16.3	16.3
70°	8.5	17.5	15.7	14.5	14.5
72.5°	7.3	15.1	13.9	12.7	12.7
75°	6.0	13.3	12.1	11.5	10.9
77.5°	5.4	11.5	10.9	9.7	9.1
80°	4.2	9.7	9.7	9.1	7.9
82.5°	3.6	8.5	8.5	7.9	6.7
85°	3.0	7.3	7.9	6.7	4.8
87.5°	2.4	6.7	6.7	5.4	3.6
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	8.67	9.95	9.04	10.26	10.58	8.46	9.74	8.83	10.05	10.37
	3H	9.91	11.04	10.29	11.37	11.74	10.05	11.19	10.43	11.52	11.88
	4H	10.36	11.42	10.76	11.77	12.15	10.77	11.83	11.17	12.18	12.57
	6H	10.74	11.71	11.15	12.08	12.47	11.43	12.40	11.84	12.77	13.17
	8H	10.89	11.81	11.32	12.20	12.61	11.76	12.68	12.19	13.08	13.48
	12H	11.05	11.93	11.48	12.31	12.74	12.06	12.94	12.49	13.33	13.76
4H	2H	9.22	10.28	9.63	10.63	11.02	9.06	10.12	9.46	10.47	10.85
	3H	10.92	11.79	11.33	12.20	12.60	10.89	11.76	11.31	12.17	12.57
	4H	11.71	12.50	12.15	12.92	13.36	11.77	12.55	12.20	12.97	13.41
	6H	12.36	13.03	12.82	13.48	13.95	12.62	13.30	13.08	13.74	14.21
	8H	12.60	13.24	13.07	13.69	14.16	13.05	13.68	13.52	14.13	14.60
	12H	12.85	13.41	13.34	13.89	14.37	13.45	14.01	13.94	14.49	14.97
8H	4H	12.13	12.77	12.60	13.21	13.68	12.19	12.82	12.66	13.27	13.74
	6H	13.11	13.63	13.61	14.13	14.61	13.28	13.80	13.78	14.30	14.78
	8H	13.60	14.07	14.13	14.59	15.08	13.88	14.34	14.40	14.86	15.35
	12H	14.11	14.52	14.62	15.02	15.59	14.48	14.89	14.99	15.39	15.96
12H	4H	12.20	12.76	12.69	13.24	13.72	12.26	12.82	12.75	13.31	13.78
	6H	13.28	13.75	13.80	14.26	14.76	13.44	13.91	13.97	14.43	14.92
	8H	13.92	14.33	14.44	14.83	15.40	14.16	14.57	14.68	15.07	15.64