

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: P1058367

Luminaire Tested: S122RDR-H485D835-X4F0-XX-UDD-BVL-W

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1058367
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-57)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S122RDR-H485D835-X4F0-XX-UDD-BVL-W
Description: DEFINE 2 WHITE REGRESSED DIRECT RECESSED HOUSING WITH BLACK STRAIGHT BLADE
LOUVER WITH DIFFUSER
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 3500K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

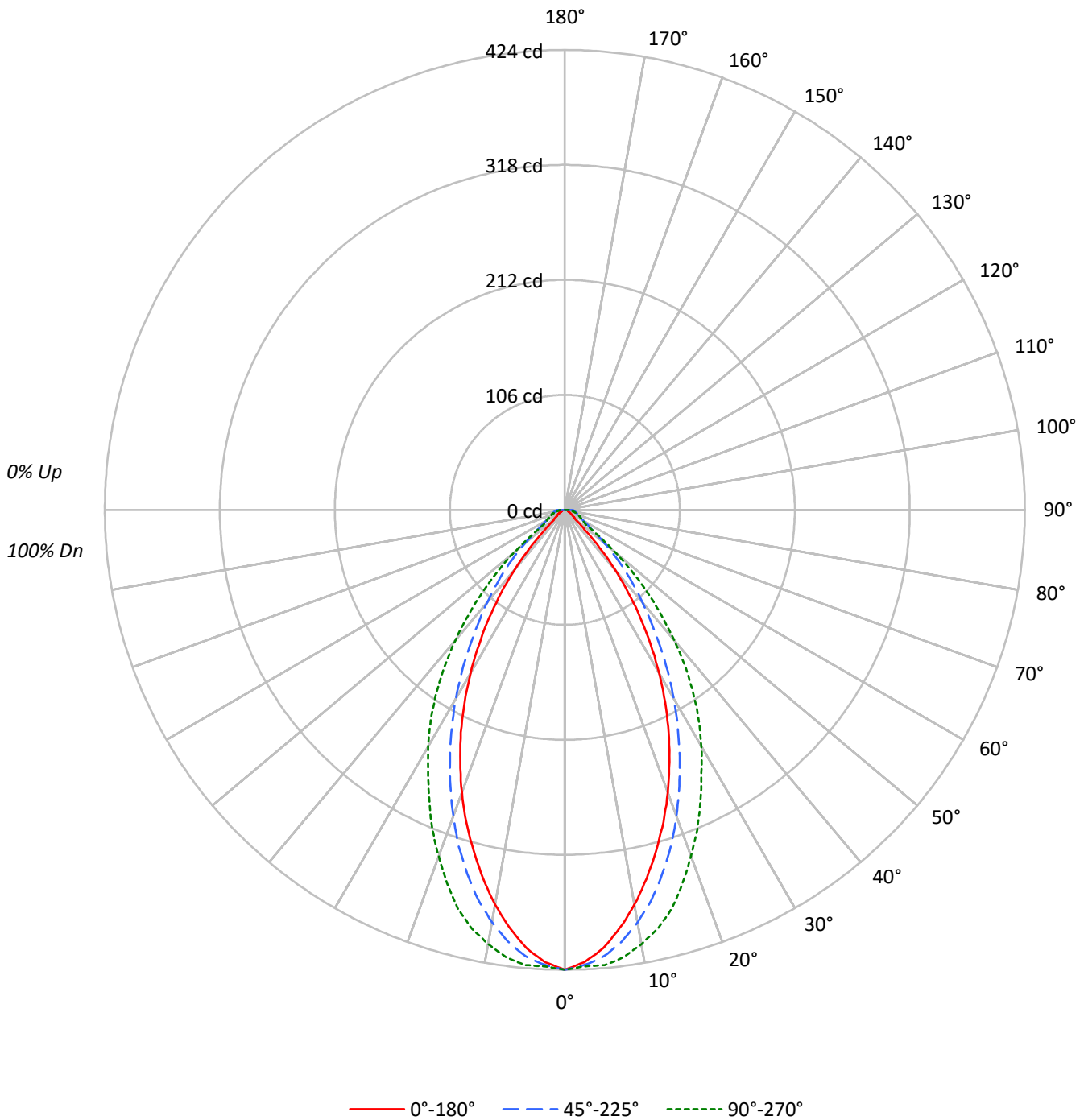
Lumens per Lamp: N/A
Luminaire Lumens: 461.5 lumens
Efficiency: N/A
Efficacy: 26.5 lumens/watt
Spacing Criteria (0/90/45): 0.78 / 0.96 / 0.91
Luminous Opening: Rectangular (W 0.15' x L: 4' x H: 0')
CIE Type: Direct

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									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	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	112	108	105	102	109	106	103	101	102	100	97	98	96	95	95	93	92	90													90															
2	105	99	94	90	102	97	92	89	94	90	87	91	87	85	88	85	83	81													81															
3	98	91	85	80	96	89	84	79	86	82	78	84	80	76	81	78	75	74													74															
4	92	83	77	72	90	82	76	71	80	75	70	78	73	70	76	72	69	67													67															
5	87	77	70	65	85	76	70	65	74	69	64	72	67	64	71	66	63	61													61															
6	82	72	65	60	80	71	64	59	69	63	59	68	62	58	66	62	58	56													56															
7	77	67	60	55	76	66	59	55	64	59	54	63	58	54	62	57	54	52													52															
8	73	62	55	51	72	62	55	51	60	54	50	59	54	50	58	53	50	48													48															
9	69	58	52	47	68	58	51	47	57	51	47	56	50	47	55	50	46	45													45															
10	66	55	48	44	64	54	48	44	53	48	44	53	47	43	52	47	43	42													42															

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	7824	7824	7824
5°	7515	7654	7804
10°	6929	7233	7615
15°	6209	6637	7271
20°	5449	5903	6675
25°	4614	5098	6023
30°	3701	4278	5363
35°	2735	3424	4647
40°	1715	2681	3775
45°	673	2017	2797
50°	330	1364	1714
55°	261	894	762
60°	199	727	701
65°	148	681	681
70°	183	696	696
75°	192	777	727
80°	287	1010	797
85°	572	1715	1143

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 22.5°
 Vertical Angle: 87.5°
 Luminance: 3173 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	38.7	8.4
10°-20°	97.9	21.2
20°-30°	117.1	25.4
30°-40°	98.6	21.4
40°-50°	56.1	12.2
50°-60°	22.1	4.8
60°-70°	13.9	3.0
70°-80°	10.4	2.2
80°-90°	6.6	1.4
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°	253.8	55.0
0°-40°	352.4	76.3
0°-60°	430.6	93.3
0°-90°	461.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	461.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	424	424	424	424	424	
5°	406	414	413	418	421	38
15°	325	336	347	368	381	91
25°	227	237	250	276	296	103
35°	121	132	152	184	206	75
45°	26	46	77	97	107	24
55°	8	18	28	28	24	7
65°	3	16	16	15	16	4
75°	3	11	11	10	10	3
85°	3	8	8	8	5	2
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	424.0	424.0	424.0	424.0	424.0
2.5°	417.3	424.7	420.0	420.6	421.3
5°	405.7	414.5	413.2	417.9	421.3
7.5°	388.8	398.3	401.6	409.8	415.9
10°	369.8	380.6	386.0	398.9	406.4
12.5°	348.0	360.3	368.4	384.7	395.5
15°	325.0	336.5	347.4	367.7	380.6
17.5°	301.9	313.4	325.0	347.4	360.9
20°	277.5	288.3	300.6	324.3	339.9
22.5°	251.7	263.2	275.5	299.9	318.9
25°	226.6	236.8	250.4	276.1	295.8
27.5°	200.1	210.3	225.2	251.7	272.7
30°	173.7	183.9	200.8	228.0	251.7
32.5°	147.2	158.1	176.4	206.3	230.0
35°	121.4	132.3	152.0	184.5	206.3
37.5°	96.3	108.6	130.3	162.2	182.5
40°	71.2	85.5	111.3	139.8	156.7
42.5°	47.5	65.1	93.6	117.4	131.6
45°	25.8	45.5	77.3	97.0	107.2
47.5°	14.2	29.2	61.7	77.3	83.5
50°	11.5	20.4	47.5	59.0	59.7
52.5°	9.5	18.3	35.3	42.1	38.7
55°	8.1	17.6	27.8	28.5	23.7
57.5°	6.8	17.0	23.1	20.4	20.4
60°	5.4	17.0	19.7	18.3	19.0
62.5°	4.1	17.0	17.6	16.3	17.0
65°	3.4	15.6	15.6	14.9	15.6
67.5°	3.4	14.2	14.2	13.6	14.2
70°	3.4	13.6	12.9	12.9	12.9
72.5°	2.7	12.2	12.2	11.5	11.5
75°	2.7	10.9	10.9	10.2	10.2
77.5°	2.7	10.2	10.2	9.5	8.8
80°	2.7	8.8	9.5	8.8	7.5
82.5°	2.7	8.1	8.8	8.1	6.1
85°	2.7	7.5	8.1	7.5	5.4
87.5°	2.0	7.5	7.5	6.1	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	4.85	6.08	5.22	6.39	6.70	6.88	8.10	7.24	8.41	8.73
	3H	6.39	7.48	6.77	7.81	8.17	8.84	9.93	9.22	10.26	10.63
	4H	6.95	7.96	7.35	8.31	8.69	9.76	10.77	10.16	11.12	11.51
	6H	7.50	8.43	7.91	8.80	9.20	10.64	11.57	11.06	11.94	12.34
	8H	7.79	8.67	8.22	9.06	9.47	11.04	11.92	11.47	12.31	12.72
	12H	8.15	8.99	8.58	9.37	9.80	11.48	12.32	11.91	12.71	13.14
4H	2H	6.03	7.05	6.44	7.40	7.78	7.49	8.51	7.90	8.86	9.24
	3H	8.23	9.06	8.64	9.47	9.87	9.73	10.57	10.15	10.97	11.38
	4H	9.29	10.04	9.72	10.46	10.90	10.80	11.55	11.24	11.97	12.42
	6H	10.18	10.83	10.64	11.27	11.74	11.91	12.56	12.38	13.01	13.48
	8H	10.56	11.17	11.03	11.61	12.09	12.43	13.04	12.91	13.49	13.96
	12H	10.98	11.51	11.47	12.00	12.47	13.01	13.54	13.50	14.03	14.50
8H	4H	10.09	10.70	10.56	11.14	11.62	11.30	11.90	11.77	12.35	12.82
	6H	11.47	11.96	11.97	12.46	12.94	12.69	13.19	13.20	13.69	14.17
	8H	12.18	12.62	12.70	13.14	13.63	13.43	13.87	13.95	14.39	14.88
	12H	12.93	13.32	13.45	13.82	14.39	14.26	14.65	14.77	15.15	15.72
12H	4H	10.25	10.79	10.74	11.27	11.75	11.40	11.93	11.89	12.42	12.89
	6H	11.80	12.24	12.32	12.76	13.25	12.91	13.35	13.43	13.87	14.36
	8H	12.70	13.10	13.22	13.59	14.17	13.79	14.18	14.31	14.68	15.25