

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: P1057887

Luminaire Tested: S122RDRP-S290D835-X4F0-XX-UDD-WVL-W

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2024
Report Number: P1057887
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-55)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S122RDRP-S290D835-X4F0-XX-UDD-WVL-W
Description: DEFINE 2 WHITE REGRESSED DIRECT RECESSED HOUSING WITH WHITE STRAIGHT BLADE
LOUVER WITH DIFFUSER
CORE LIGHT ENGINE
Light Source: 3500K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

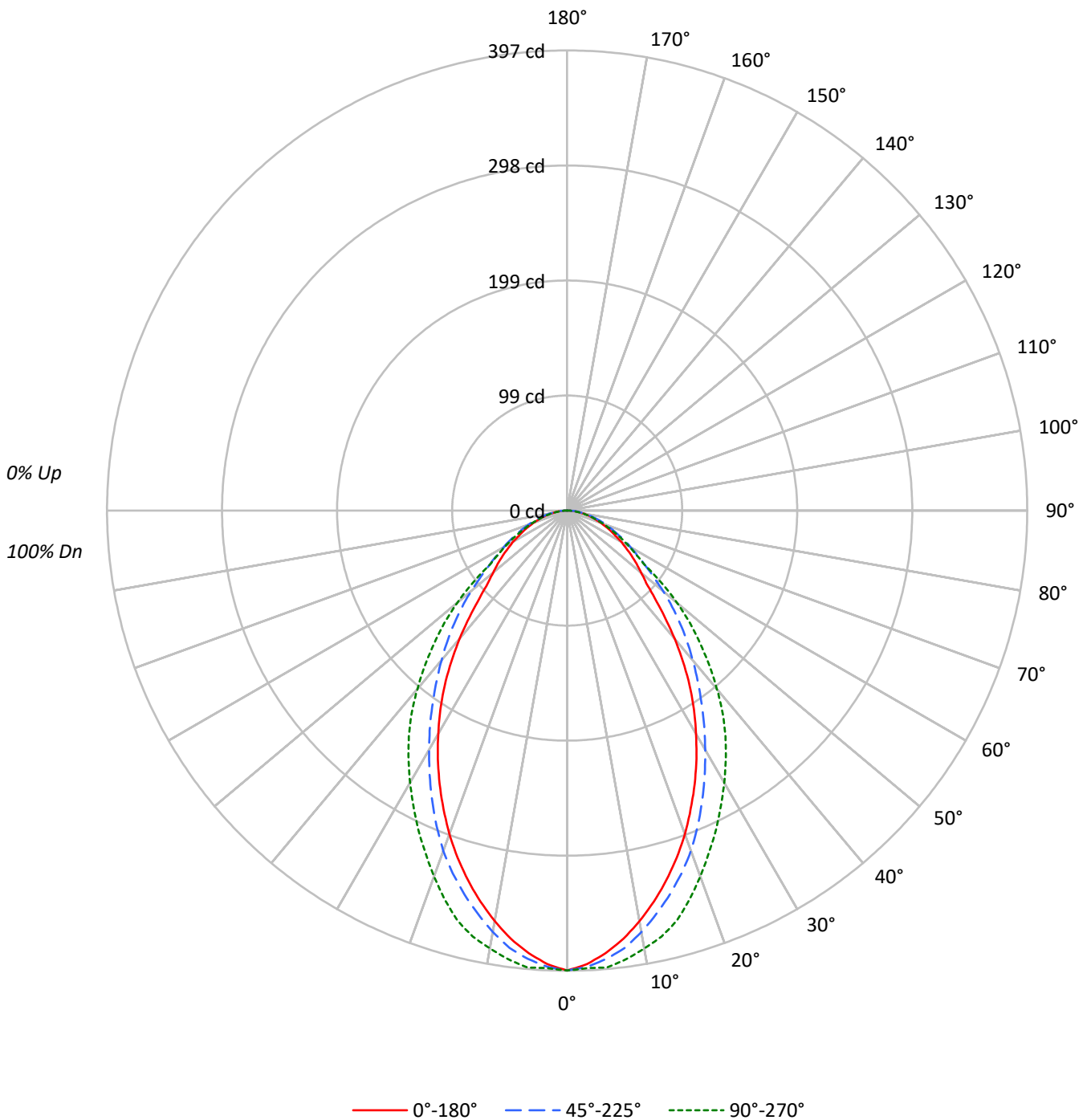
Lumens per Lamp: N/A
Luminaire Lumens: 647.0 lumens
Efficiency: N/A
Efficacy: 51.8 lumens/watt
Spacing Criteria (0/90/45): 0.91 / 1.05 / 1.05
Luminous Opening: Rectangular (W 0.15' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 12.5
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	110	106	103	99	108	104	101	98	100	97	95	96	94	92	93	91	89				87	
2	102	95	89	84	100	93	88	83	90	85	81	87	83	80	84	81	78				76	
3	94	85	78	73	92	84	77	72	81	75	71	78	74	70	76	72	68				67	
4	88	77	69	64	85	76	69	63	73	67	62	71	66	62	69	65	61				59	
5	81	70	62	56	80	69	62	56	67	60	55	65	59	55	63	58	54				52	
6	76	64	56	50	74	63	56	50	61	55	50	60	54	49	58	53	49				47	
7	71	59	51	46	69	58	51	45	57	50	45	55	49	45	54	49	44				43	
8	67	54	47	41	65	54	46	41	52	46	41	51	45	41	50	45	41				39	
9	63	50	43	38	61	50	43	38	49	42	38	48	42	37	47	41	37				36	
10	59	47	40	35	58	46	39	35	46	39	35	45	39	35	44	38	34				33	

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	7322	7322	7322
5°	7098	7192	7328
10°	6740	6916	7188
15°	6310	6547	6994
20°	5832	6135	6594
25°	5300	5613	6185
30°	4737	5073	5774
35°	4152	4546	5364
40°	3473	4061	4842
45°	2784	3596	4233
50°	2388	3100	3551
55°	2181	2635	2622
60°	1985	2332	2284
65°	1808	2087	1995
70°	1656	1910	1775
75°	1554	1761	1554
80°	1456	1636	1360
85°	1440	1715	1164

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 4233 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	36.6	5.7
10°-20°	97.0	15.0
20°-30°	127.9	19.8
30°-40°	128.8	19.9
40°-50°	104.8	16.2
50°-60°	71.5	11.0
60°-70°	46.4	7.2
70°-80°	25.6	4.0
80°-90°	8.3	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°	261.5	40.4
0°-40°	390.4	60.3
0°-60°	566.7	87.6
0°-90°	647.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	647.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	397	397	397	397	397	
5°	383	390	388	392	396	36
15°	330	339	343	357	366	93
25°	260	269	276	288	304	119
35°	184	194	202	219	238	114
45°	107	120	138	150	162	84
55°	68	75	82	82	82	61
65°	41	49	48	45	46	41
75°	22	27	25	22	22	23
85°	7	9	8	6	6	7
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	396.8	396.8	396.8	396.8	396.8
2.5°	391.7	398.1	393.9	394.3	395.1
5°	383.2	390.4	388.3	391.7	395.6
7.5°	372.5	379.8	380.6	385.8	390.4
10°	359.7	367.8	369.1	376.8	383.6
12.5°	345.6	354.6	356.3	367.4	376.4
15°	330.3	338.8	342.7	356.7	366.1
17.5°	314.1	322.2	328.1	340.9	351.6
20°	297.0	304.7	312.4	323.9	335.8
22.5°	278.6	287.2	294.4	306.0	319.6
25°	260.3	268.8	275.7	288.0	303.8
27.5°	241.5	250.1	256.9	270.1	287.2
30°	222.3	231.3	238.1	253.0	271.0
32.5°	203.5	212.5	220.2	236.0	254.8
35°	184.3	193.7	201.8	219.3	238.1
37.5°	163.9	174.5	184.8	202.3	220.6
40°	144.2	156.2	168.6	184.8	201.0
42.5°	124.6	137.8	153.2	166.8	181.8
45°	106.7	119.9	137.8	149.8	162.2
47.5°	92.6	103.7	122.9	132.7	143.8
50°	83.2	90.9	108.0	115.6	123.7
52.5°	75.5	81.9	93.9	99.0	103.3
55°	67.8	74.7	81.9	82.4	81.5
57.5°	60.2	67.8	71.7	68.7	70.4
60°	53.8	61.4	63.2	60.2	61.9
62.5°	46.9	55.5	55.5	52.5	53.3
65°	41.4	49.1	47.8	45.2	45.7
67.5°	35.8	43.5	41.4	38.8	38.8
70°	30.7	38.0	35.4	32.9	32.9
72.5°	26.0	32.0	30.3	27.3	26.9
75°	21.8	26.9	24.7	22.2	21.8
77.5°	17.5	21.8	20.1	17.9	17.1
80°	13.7	17.5	15.4	13.7	12.8
82.5°	10.2	13.2	11.5	9.8	9.0
85°	6.8	9.0	8.1	6.4	5.5
87.5°	3.4	6.0	5.1	4.3	3.4
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	13.63	15.07	14.00	15.38	15.70	13.88	15.32	14.25	15.63	15.95
	3H	15.16	16.45	15.54	16.78	17.14	15.24	16.53	15.62	16.86	17.22
	4H	15.72	16.93	16.12	17.28	17.66	15.72	16.93	16.12	17.28	17.66
	6H	16.15	17.26	16.56	17.63	18.02	16.07	17.18	16.49	17.55	17.95
	8H	16.30	17.36	16.73	17.75	18.15	16.18	17.24	16.61	17.63	18.03
	12H	16.41	17.43	16.85	17.81	18.24	16.25	17.26	16.68	17.64	18.07
4H	2H	14.21	15.41	14.61	15.76	16.14	14.41	15.61	14.81	15.96	16.34
	3H	16.01	17.01	16.42	17.41	17.81	15.98	16.98	16.39	17.38	17.78
	4H	16.75	17.65	17.19	18.07	18.51	16.58	17.47	17.01	17.89	18.33
	6H	17.34	18.12	17.80	18.56	19.03	17.05	17.83	17.51	18.27	18.73
	8H	17.55	18.28	18.02	18.72	19.19	17.20	17.93	17.66	18.37	18.84
	12H	17.71	18.36	18.20	18.84	19.32	17.31	17.95	17.79	18.43	18.91
8H	4H	17.02	17.75	17.48	18.19	18.66	16.87	17.60	17.33	18.04	18.51
	6H	17.78	18.38	18.27	18.87	19.35	17.46	18.06	17.96	18.55	19.03
	8H	18.10	18.64	18.62	19.15	19.64	17.68	18.22	18.20	18.73	19.22
	12H	18.38	18.86	18.89	19.35	19.92	17.86	18.34	18.37	18.83	19.40
12H	4H	17.03	17.68	17.52	18.16	18.63	16.90	17.55	17.38	18.03	18.50
	6H	17.82	18.36	18.34	18.87	19.36	17.53	18.07	18.04	18.58	19.07
	8H	18.22	18.69	18.73	19.19	19.75	17.81	18.29	18.32	18.78	19.35