

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: P1058292

Luminaire Tested: S122RDR-H290D835-X4F0-XX-UDD-WVL-W

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1058292
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: S122RDR-H290D835-X4F0-XX-UDD-WVL-W
Description: DEFINE 2 WHITE REGRESSED DIRECT RECESSED HOUSING WITH WHITE STRAIGHT BLADE
LOUVER WITH DIFFUSER
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 3500K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

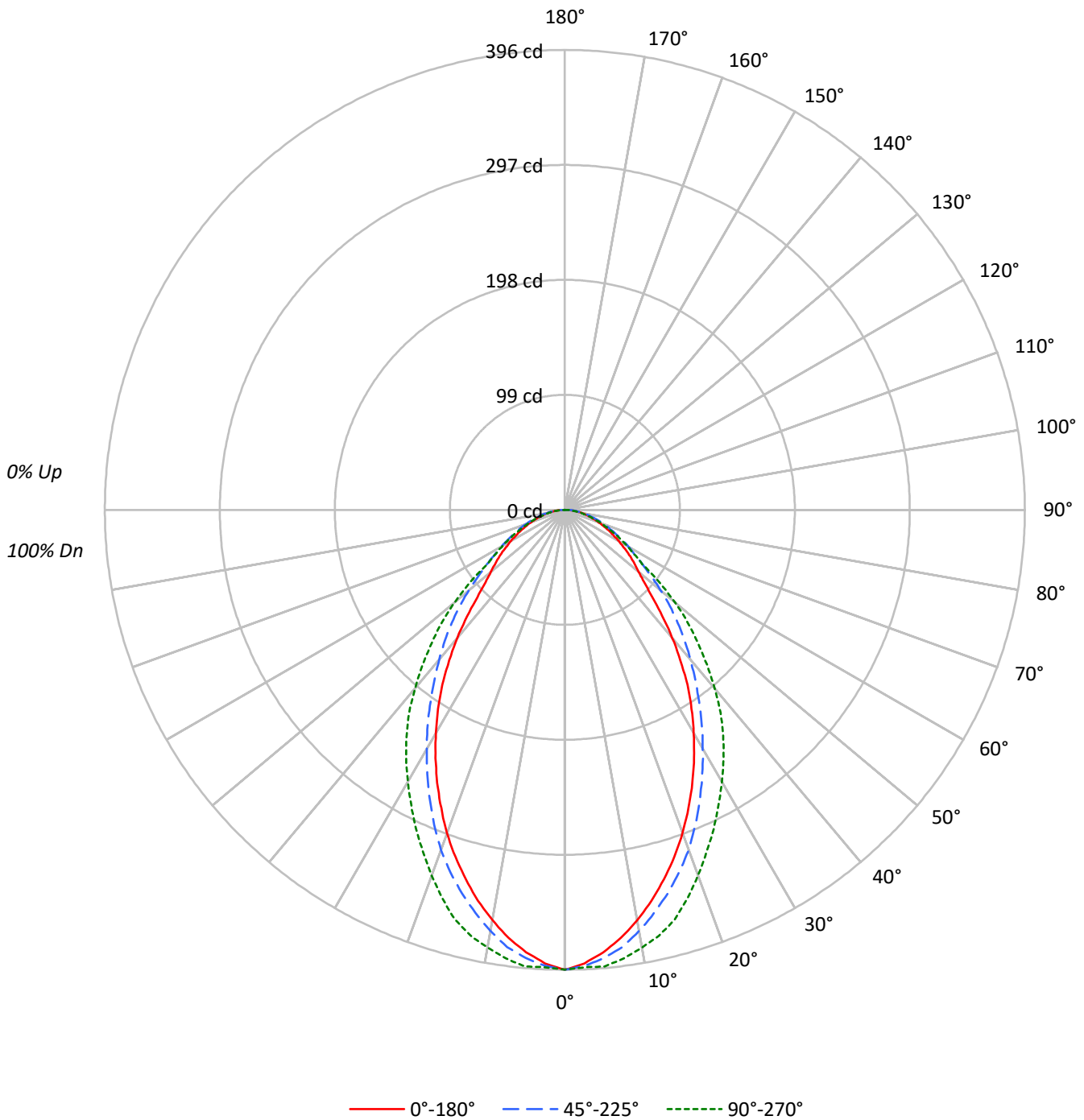
Lumens per Lamp: N/A
Luminaire Lumens: 645.4 lumens
Efficiency: N/A
Efficacy: 55.2 lumens/watt
Spacing Criteria (0/90/45): 0.91 / 1.05 / 1.05
Luminous Opening: Rectangular (W 0.15' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 11.7
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	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	110	106	103	100	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	40	35	46	39	35	45	39	35	44	38	34	33

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	7305	7305	7305
5°	7081	7176	7309
10°	6723	6899	7171
15°	6295	6530	6977
20°	5818	6119	6578
25°	5288	5599	6171
30°	4726	5060	5759
35°	4143	4535	5350
40°	3466	4049	4830
45°	2777	3588	4222
50°	2383	3092	3542
55°	2178	2628	2615
60°	1978	2325	2277
65°	1803	2083	1987
70°	1651	1904	1770
75°	1547	1761	1547
80°	1445	1626	1360
85°	1440	1715	1164

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 4222 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	36.5	5.7
10°-20°	96.8	15.0
20°-30°	127.6	19.8
30°-40°	128.5	19.9
40°-50°	104.6	16.2
50°-60°	71.3	11.0
60°-70°	46.3	7.2
70°-80°	25.5	3.9
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°	260.9	40.4
0°-40°	389.4	60.3
0°-60°	565.3	87.6
0°-90°	645.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	645.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	396	396	396	396	396	
5°	382	390	387	391	395	36
15°	330	338	342	356	365	92
25°	260	268	275	287	303	119
35°	184	193	201	219	238	114
45°	106	120	138	149	162	84
55°	68	74	82	82	81	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°	395.9	395.9	395.9	395.9	395.9
2.5°	390.8	397.2	392.9	393.3	394.2
5°	382.3	389.5	387.4	390.8	394.6
7.5°	371.6	378.8	379.7	384.8	389.5
10°	358.8	366.9	368.2	375.9	382.7
12.5°	344.8	353.7	355.4	366.5	375.4
15°	329.5	338.0	341.8	355.9	365.2
17.5°	313.3	321.4	327.3	340.1	350.8
20°	296.3	303.9	311.6	323.1	335.0
22.5°	278.0	286.5	293.7	305.2	318.8
25°	259.7	268.2	275.0	287.3	303.1
27.5°	240.9	249.4	256.3	269.5	286.5
30°	221.8	230.7	237.5	252.4	270.3
32.5°	203.0	212.0	219.6	235.4	254.1
35°	183.9	193.3	201.3	218.8	237.5
37.5°	163.5	174.1	184.3	201.8	220.1
40°	143.9	155.8	168.1	184.3	200.5
42.5°	124.3	137.5	152.8	166.4	181.3
45°	106.4	119.6	137.5	149.4	161.8
47.5°	92.4	103.4	122.6	132.4	143.5
50°	83.0	90.7	107.7	115.4	123.4
52.5°	75.3	81.7	93.6	98.8	103.0
55°	67.7	74.5	81.7	82.2	81.3
57.5°	60.0	67.7	71.5	68.5	70.2
60°	53.6	61.3	63.0	60.0	61.7
62.5°	46.8	55.3	55.3	52.4	53.2
65°	41.3	49.0	47.7	45.1	45.5
67.5°	35.8	43.4	41.3	38.7	38.7
70°	30.6	37.9	35.3	32.8	32.8
72.5°	26.0	31.9	30.2	27.2	26.8
75°	21.7	26.8	24.7	22.1	21.7
77.5°	17.5	21.7	20.0	17.9	17.0
80°	13.6	17.5	15.3	13.6	12.8
82.5°	10.2	13.2	11.5	9.8	8.9
85°	6.8	8.9	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	13.99	15.38	15.70	13.87	15.31	14.24	15.62	15.94
	3H	15.16	16.44	15.54	16.77	17.14	15.23	16.52	15.61	16.85	17.21
	4H	15.72	16.92	16.12	17.27	17.65	15.71	16.92	16.11	17.27	17.65
	6H	16.14	17.26	16.56	17.62	18.02	16.06	17.17	16.47	17.54	17.93
	8H	16.30	17.35	16.72	17.74	18.15	16.17	17.22	16.60	17.61	18.02
	12H	16.41	17.42	16.84	17.80	18.23	16.24	17.25	16.67	17.63	18.06
4H	2H	14.20	15.41	14.60	15.76	16.14	14.40	15.60	14.80	15.95	16.33
	3H	16.00	17.00	16.42	17.40	17.81	15.97	16.97	16.38	17.37	17.77
	4H	16.75	17.64	17.18	18.06	18.50	16.56	17.46	17.00	17.88	18.32
	6H	17.33	18.11	17.79	18.56	19.02	17.03	17.81	17.49	18.26	18.72
	8H	17.54	18.27	18.01	18.72	19.19	17.18	17.91	17.65	18.36	18.83
	12H	17.71	18.36	18.19	18.84	19.31	17.29	17.94	17.77	18.42	18.89
8H	4H	17.01	17.74	17.48	18.18	18.65	16.86	17.58	17.32	18.03	18.50
	6H	17.77	18.37	18.27	18.86	19.34	17.45	18.05	17.94	18.54	19.02
	8H	18.09	18.63	18.61	19.14	19.63	17.67	18.21	18.18	18.72	19.21
	12H	18.37	18.85	18.88	19.34	19.91	17.85	18.33	18.36	18.82	19.39
12H	4H	17.02	17.67	17.51	18.15	18.63	16.89	17.54	17.37	18.02	18.49
	6H	17.81	18.35	18.33	18.87	19.35	17.51	18.05	18.03	18.57	19.06
	8H	18.21	18.69	18.72	19.18	19.75	17.80	18.28	18.31	18.77	19.34