

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: P1058529

Luminaire Tested: S122RDR-H865D835-X4F0-XX-UDD-BVL-W

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1058529
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-H865D835-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

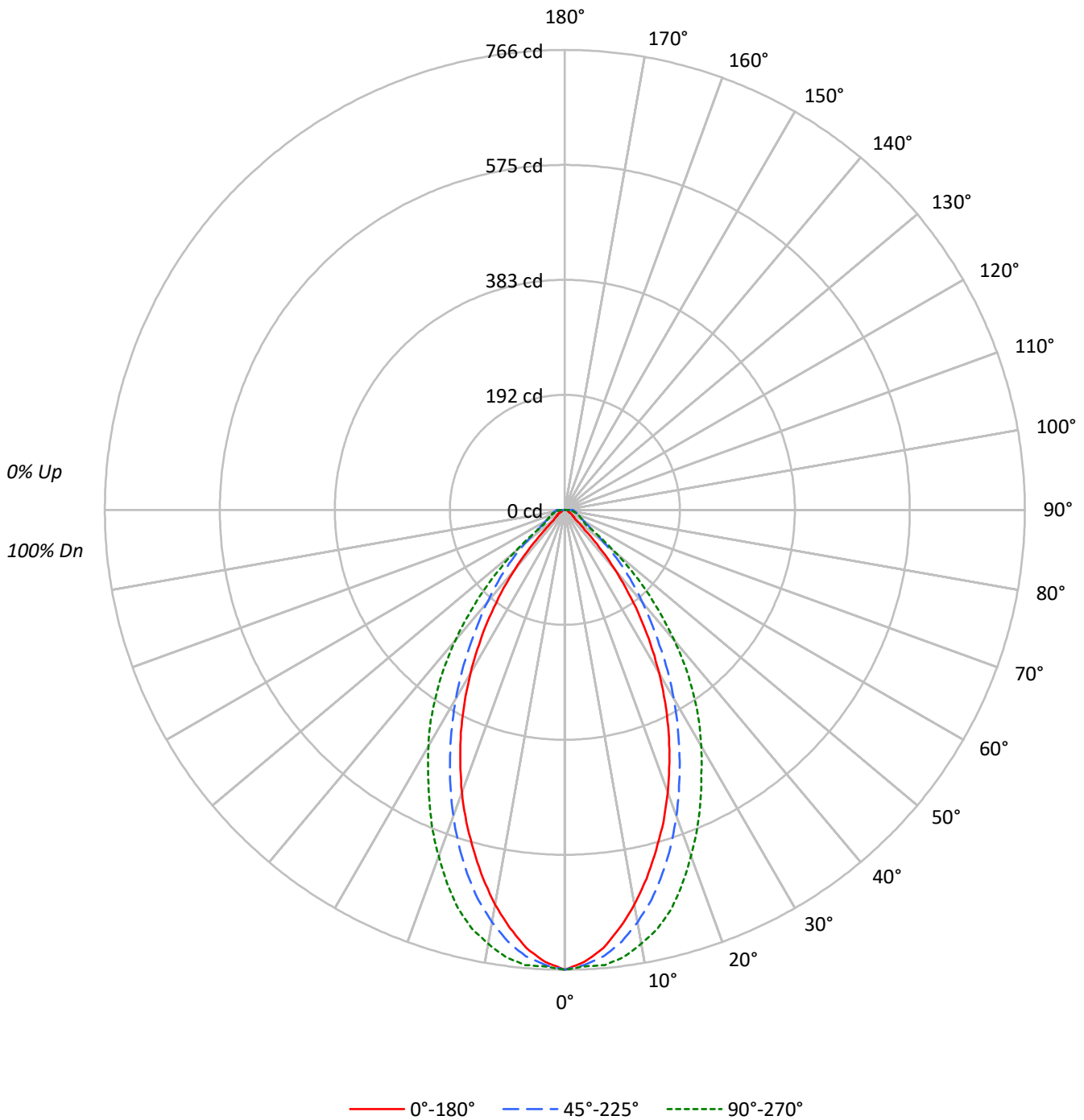
Lumens per Lamp: N/A
Luminaire Lumens: 833.6 lumens
Efficiency: N/A
Efficacy: 26.7 lumens/watt
Spacing Criteria (0/90/45): 0.78 / 0.96 / 0.91
Luminous Opening: Rectangular (W 0.15' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 31.2
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				
1	112	108	105	102	109	106	103	101	102	100	97	98	96	95	95	93	92	90				
2	105	99	94	90	102	97	92	89	94	90	87	91	87	85	88	85	83	81				
3	98	91	85	80	96	89	84	79	86	82	78	84	80	76	81	78	75	74				
4	92	83	77	72	90	82	76	71	80	75	70	78	73	70	76	72	69	67				
5	87	77	70	65	85	76	70	65	74	69	64	72	67	64	71	66	63	61				
6	82	72	65	60	80	71	64	59	69	63	59	68	62	58	66	62	58	56				
7	77	67	60	55	76	66	59	55	64	59	54	63	58	54	62	57	54	52				
8	73	62	55	51	72	62	55	51	60	54	50	59	54	50	58	53	50	48				
9	69	58	52	47	68	58	51	47	57	51	47	56	50	47	55	50	46	45				
10	66	55	48	44	64	54	48	44	53	48	44	53	47	43	52	47	43	42				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	14133	14133	14133
5°	13574	13824	14096
10°	12513	13064	13753
15°	11214	11985	13132
20°	9842	10659	12055
25°	8333	9207	10878
30°	6684	7728	9686
35°	4940	6183	8391
40°	3100	4842	6819
45°	1216	3646	5052
50°	597	2463	3095
55°	473	1615	1380
60°	362	1310	1266
65°	266	1231	1231
70°	329	1257	1257
75°	349	1397	1312
80°	521	1828	1435
85°	1037	3112	2075

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 22.5°
 Vertical Angle: 87.5°
 Luminance: 5711 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	69.9	8.4
10°-20°	176.8	21.2
20°-30°	211.6	25.4
30°-40°	178.1	21.4
40°-50°	101.4	12.2
50°-60°	40.0	4.8
60°-70°	25.2	3.0
70°-80°	18.7	2.2
80°-90°	11.9	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°	458.4	55.0
0°-40°	636.4	76.3
0°-60°	777.8	93.3
0°-90°	833.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	833.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	766	766	766	766	766	
5°	733	749	746	755	761	68
15°	587	608	627	664	687	164
25°	409	428	452	499	534	186
35°	219	239	274	333	372	136
45°	47	82	140	175	194	44
55°	15	32	50	52	43	13
65°	6	28	28	27	28	7
75°	5	20	20	18	18	5
85°	5	14	15	14	10	4
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	765.9	765.9	765.9	765.9	765.9
2.5°	753.6	767.1	758.5	759.7	761.0
5°	732.8	748.7	746.3	754.8	761.0
7.5°	702.1	719.3	725.4	740.1	751.2
10°	667.8	687.4	697.2	720.5	734.0
12.5°	628.6	650.7	665.4	694.8	714.4
15°	587.0	607.8	627.4	664.2	687.4
17.5°	545.3	566.1	587.0	627.4	651.9
20°	501.2	520.8	542.8	585.7	613.9
22.5°	454.6	475.4	497.5	541.6	575.9
25°	409.3	427.7	452.2	498.7	534.3
27.5°	361.5	379.9	406.8	454.6	492.6
30°	313.7	332.1	362.7	411.7	454.6
32.5°	265.9	285.5	318.6	372.5	415.4
35°	219.3	238.9	274.5	333.3	372.5
37.5°	174.0	196.1	235.3	292.9	329.6
40°	128.7	154.4	201.0	252.4	283.1
42.5°	85.8	117.6	169.1	212.0	237.7
45°	46.6	82.1	139.7	175.2	193.6
47.5°	25.7	52.7	111.5	139.7	150.7
50°	20.8	36.8	85.8	106.6	107.8
52.5°	17.2	33.1	63.7	76.0	69.8
55°	14.7	31.9	50.2	51.5	42.9
57.5°	12.3	30.6	41.7	36.8	36.8
60°	9.8	30.6	35.5	33.1	34.3
62.5°	7.4	30.6	31.9	29.4	30.6
65°	6.1	28.2	28.2	27.0	28.2
67.5°	6.1	25.7	25.7	24.5	25.7
70°	6.1	24.5	23.3	23.3	23.3
72.5°	4.9	22.1	22.1	20.8	20.8
75°	4.9	19.6	19.6	18.4	18.4
77.5°	4.9	18.4	18.4	17.2	15.9
80°	4.9	15.9	17.2	15.9	13.5
82.5°	4.9	14.7	15.9	14.7	11.0
85°	4.9	13.5	14.7	13.5	9.8
87.5°	3.7	13.5	13.5	11.0	7.4
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	6.89	8.11	7.25	8.42	8.74	8.92	10.15	9.29	10.46	10.77
	3H	8.43	9.51	8.81	9.85	10.21	10.89	11.98	11.27	12.31	12.68
	4H	8.99	10.00	9.39	10.35	10.73	11.81	12.82	12.21	13.17	13.56
	6H	9.54	10.47	9.96	10.85	11.24	12.69	13.62	13.11	13.99	14.39
	8H	9.84	10.72	10.27	11.11	11.52	13.09	13.97	13.52	14.36	14.77
	12H	10.20	11.04	10.63	11.42	11.85	13.53	14.38	13.97	14.76	15.19
4H	2H	8.08	9.09	8.48	9.44	9.83	9.54	10.56	9.95	10.91	11.29
	3H	10.28	11.11	10.69	11.52	11.92	11.79	12.62	12.20	13.02	13.43
	4H	11.33	12.08	11.77	12.50	12.94	12.86	13.61	13.29	14.03	14.47
	6H	12.23	12.87	12.69	13.32	13.79	13.97	14.61	14.43	15.06	15.53
	8H	12.61	13.22	13.08	13.67	14.14	14.49	15.09	14.96	15.54	16.01
	12H	13.03	13.57	13.52	14.05	14.53	15.06	15.60	15.55	16.08	16.56
8H	4H	12.13	12.74	12.61	13.19	13.66	13.35	13.96	13.82	14.40	14.88
	6H	13.52	14.01	14.02	14.51	14.99	14.75	15.24	15.25	15.74	16.22
	8H	14.23	14.68	14.76	15.20	15.69	15.48	15.93	16.01	16.45	16.94
	12H	14.99	15.38	15.50	15.88	16.45	16.32	16.71	16.83	17.20	17.78
12H	4H	12.30	12.83	12.78	13.32	13.79	13.45	13.98	13.94	14.47	14.94
	6H	13.85	14.29	14.37	14.81	15.30	14.96	15.41	15.49	15.93	16.42
	8H	14.76	15.16	15.28	15.65	16.22	15.85	16.24	16.36	16.74	17.31