

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: P1058209

Luminaire Tested: S122RDR-H1005D835-X4F0-XX-UDD-WVL-B

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1058209
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2406-143-19)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S122RDR-H1005D835-X4F0-XX-UDD-WVL-B
Description: DEFINE 2 BLACK 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

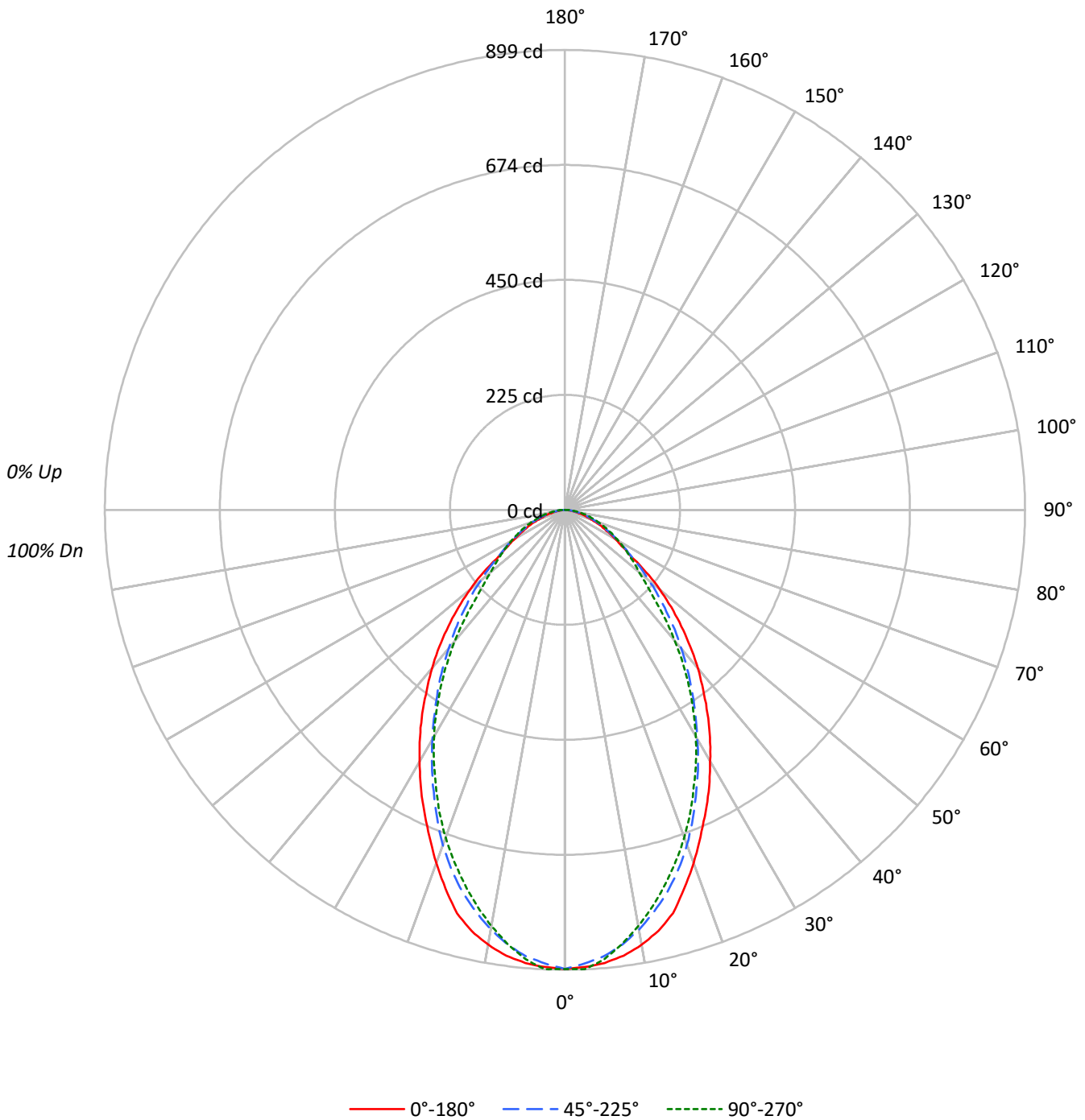
Lumens per Lamp: N/A
Luminaire Lumens: 1363.1 lumens
Efficiency: N/A
Efficacy: 37.3 lumens/watt
Spacing Criteria (0/90/45): 1 / 0.92 / 1.02
Luminous Opening: Rectangular (W 0.15' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 36.5
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	111	107	104	101	108	105	102	99	101	98	96	97	95	93	93	92	90	88
2	103	96	91	86	100	94	89	85	91	87	83	88	84	81	85	82	79	77
3	95	87	80	74	93	85	79	74	82	77	73	80	75	71	77	73	70	68
4	89	79	71	65	87	77	70	65	75	69	64	73	68	63	71	66	63	61
5	83	72	64	58	81	71	63	58	69	62	57	67	61	57	65	60	56	54
6	77	66	58	52	75	65	57	52	63	56	52	61	56	51	60	55	51	49
7	72	60	53	47	71	60	52	47	58	52	47	57	51	47	56	50	46	44
8	68	56	48	43	66	55	48	43	54	47	43	53	47	43	52	46	42	41
9	64	52	45	40	63	51	44	39	50	44	39	49	43	39	48	43	39	37
10	60	48	41	36	59	48	41	36	47	41	36	46	40	36	45	40	36	34

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	16561	16561	16561
5°	16465	16228	16334
10°	16174	15612	15479
15°	15588	14771	14471
20°	14425	13695	13386
25°	13240	12367	12135
30°	12090	11024	10901
35°	10946	9754	9529
40°	9744	8503	8055
45°	8392	7309	6451
50°	6933	6155	5414
55°	5012	5102	4874
60°	4167	4377	4429
65°	3558	3807	4056
70°	2930	3394	3701
75°	2445	2852	3365
80°	1817	2274	3039
85°	614	1207	2731

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 8392 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	82.9	6.1
10°-20°	218.5	16.0
20°-30°	282.8	20.7
30°-40°	277.3	20.3
40°-50°	218.4	16.0
50°-60°	143.1	10.5
60°-70°	87.1	6.4
70°-80°	43.5	3.2
80°-90°	9.4	0.7
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°	584.2	42.9
0°-40°	861.5	63.2
0°-60°	1223.0	89.7
0°-90°	1363.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1363.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	898	898	898	898	898	
5°	889	889	876	882	882	84
15°	816	805	773	763	758	227
25°	650	629	607	604	596	299
35°	486	459	433	432	423	303
45°	322	302	280	260	247	248
55°	156	164	159	153	152	148
65°	82	83	87	92	93	81
75°	34	36	40	46	47	37
85°	3	4	6	10	13	6
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	897.5	897.5	897.5	897.5	897.5
2.5°	894.7	896.1	887.5	896.1	898.9
5°	888.9	888.9	876.1	881.8	881.8
7.5°	878.9	877.5	857.5	857.5	856.1
10°	863.2	857.5	833.2	828.9	826.1
12.5°	843.2	833.2	804.6	797.5	793.2
15°	816.0	804.6	773.2	763.2	757.5
17.5°	776.0	764.6	737.4	726.0	720.3
20°	734.6	717.4	697.4	687.4	681.7
22.5°	691.7	671.7	653.1	646.0	640.3
25°	650.3	628.8	607.4	604.5	596.0
27.5°	610.3	584.5	563.1	561.7	554.5
30°	567.4	540.2	517.4	518.8	511.6
32.5°	527.4	501.6	474.5	475.9	467.3
35°	485.9	458.8	433.0	431.6	423.0
37.5°	443.0	417.3	393.0	387.3	378.7
40°	404.5	378.7	353.0	343.0	334.4
42.5°	363.0	340.1	317.3	301.6	290.1
45°	321.6	301.6	280.1	260.1	247.2
47.5°	281.5	265.8	247.2	222.9	214.4
50°	241.5	230.1	214.4	192.9	188.6
52.5°	200.1	195.8	185.8	171.5	170.1
55°	155.8	164.4	158.6	152.9	151.5
57.5°	131.5	132.9	137.2	135.8	135.8
60°	112.9	112.9	118.6	120.0	120.0
62.5°	95.8	97.2	102.9	105.8	105.8
65°	81.5	82.9	87.2	91.5	92.9
67.5°	67.2	70.0	74.3	78.6	80.0
70°	54.3	57.2	62.9	67.2	68.6
72.5°	44.3	45.7	51.4	55.7	57.2
75°	34.3	35.7	40.0	45.7	47.2
77.5°	24.3	27.2	31.4	35.7	38.6
80°	17.1	18.6	21.4	27.2	28.6
82.5°	10.0	11.4	14.3	18.6	20.0
85°	2.9	4.3	5.7	10.0	12.9
87.5°	0.0	0.0	0.0	2.9	5.7
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	15.87	17.27	16.24	17.58	17.90	16.06	17.45	16.42	17.76	18.08
	3H	17.01	18.25	17.39	18.58	18.95	17.52	18.76	17.89	19.09	19.45
	4H	17.36	18.52	17.76	18.87	19.25	18.06	19.22	18.46	19.57	19.95
	6H	17.54	18.61	17.96	18.98	19.38	18.47	19.54	18.88	19.91	20.30
	8H	17.57	18.59	18.00	18.98	19.38	18.60	19.61	19.03	20.00	20.41
	12H	17.56	18.53	17.99	18.91	19.34	18.68	19.65	19.11	20.04	20.47
4H	2H	16.33	17.50	16.73	17.85	18.23	16.48	17.65	16.88	18.00	18.38
	3H	17.67	18.63	18.08	19.03	19.44	18.15	19.11	18.57	19.51	19.92
	4H	18.12	18.97	18.55	19.39	19.83	18.82	19.68	19.25	20.10	20.54
	6H	18.39	19.13	18.85	19.58	20.04	19.35	20.10	19.81	20.54	21.01
	8H	18.43	19.13	18.90	19.57	20.04	19.52	20.22	19.99	20.66	21.13
	12H	18.43	19.04	18.91	19.52	20.00	19.64	20.26	20.13	20.74	21.21
8H	4H	18.33	19.02	18.80	19.47	19.94	18.97	19.66	19.43	20.11	20.58
	6H	18.68	19.25	19.18	19.74	20.22	19.60	20.17	20.10	20.66	21.14
	8H	18.75	19.26	19.27	19.78	20.27	19.83	20.34	20.35	20.86	21.35
	12H	18.77	19.22	19.28	19.72	20.28	20.02	20.47	20.53	20.96	21.53
12H	4H	18.34	18.96	18.83	19.44	19.91	18.95	19.57	19.44	20.05	20.52
	6H	18.70	19.21	19.22	19.73	20.22	19.59	20.10	20.11	20.62	21.11
	8H	18.82	19.27	19.33	19.76	20.33	19.87	20.32	20.38	20.81	21.38