

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: P1059588

Luminaire Tested: S123RDR-H340D835-X4F0-XX-UDD-WVL-W

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1059588
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-64)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S123RDR-H340D835-X4F0-XX-UDD-WVL-W
Description: DEFINE 3 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

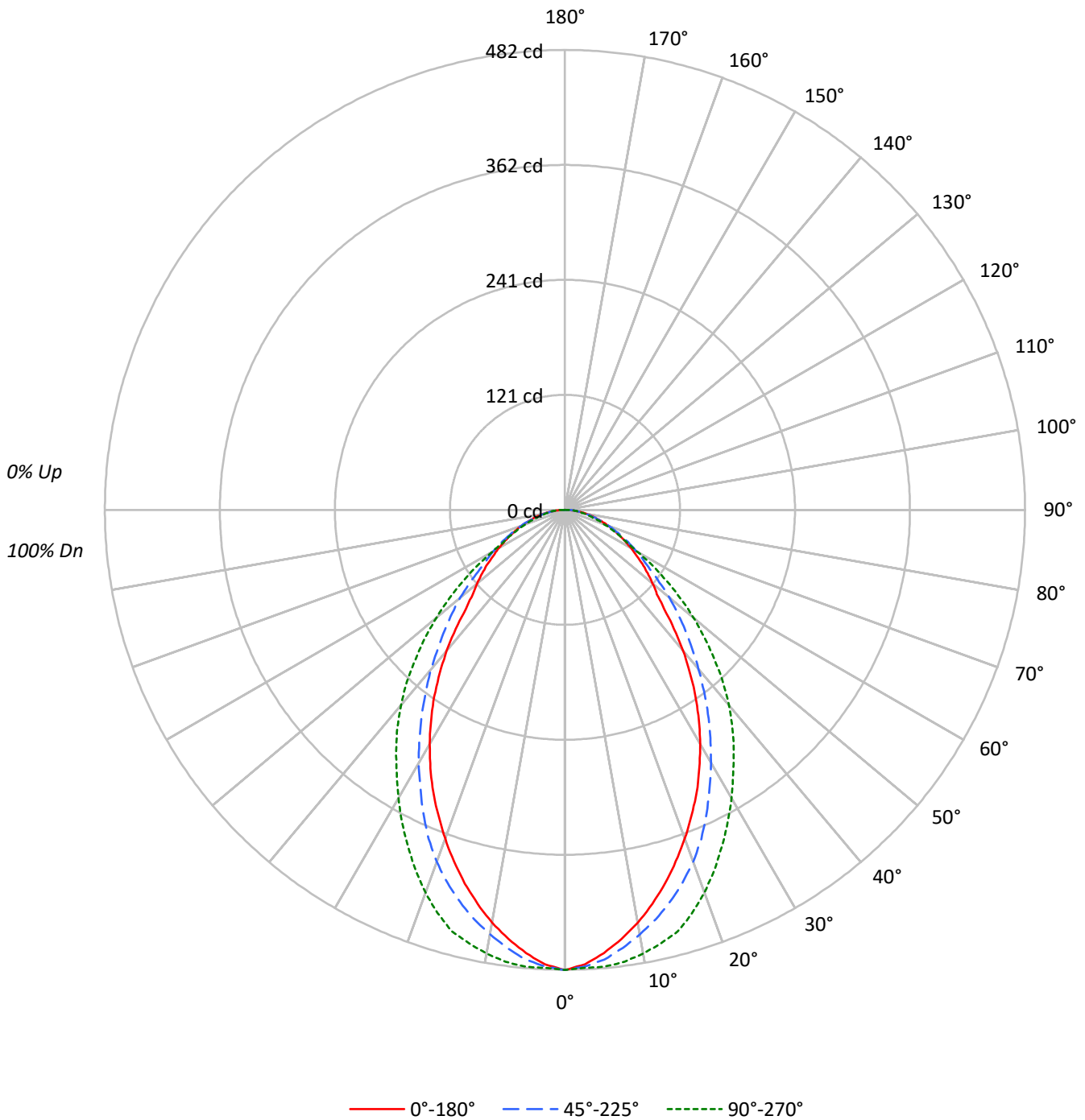
Lumens per Lamp: N/A
Luminaire Lumens: 847.3 lumens
Efficiency: N/A
Efficacy: 72.4 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 1.1 / 1.09
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')
CIE Type: Direct

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	102	99	108	104	101	97	100	97	94	96	94	92	92	91	89	87
2	102	95	89	84	99	93	87	83	89	85	81	86	82	79	83	80	77	75
3	94	85	77	72	92	83	76	71	80	75	70	78	73	69	75	71	68	66
4	87	76	69	63	85	75	68	62	73	66	61	70	65	61	68	64	60	58
5	81	69	61	55	79	68	61	55	66	59	54	64	58	54	62	57	53	51
6	75	63	55	49	73	62	55	49	61	54	49	59	53	48	57	52	48	46
7	70	58	50	44	69	57	50	44	56	49	44	54	48	44	53	48	43	41
8	66	53	46	40	64	53	45	40	51	45	40	50	44	40	49	44	39	38
9	62	49	42	37	60	49	42	37	48	41	36	47	41	36	46	40	36	34
10	58	46	39	34	57	45	38	34	45	38	34	44	38	33	43	37	33	32

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	5662	5662	5662
5°	5498	5577	5664
10°	5239	5388	5630
15°	4928	5170	5559
20°	4584	4906	5336
25°	4232	4549	5043
30°	3843	4152	4732
35°	3420	3747	4419
40°	2951	3340	4096
45°	2439	2956	3673
50°	2190	2607	3206
55°	2031	2225	2659
60°	1872	2027	2036
65°	1742	1834	1706
70°	1638	1669	1497
75°	1543	1488	1316
80°	1461	1346	1237
85°	1401	1509	1401

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 3673 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	44.7	5.3
10°-20°	120.3	14.2
20°-30°	162.8	19.2
30°-40°	167.3	19.7
40°-50°	140.5	16.6
50°-60°	100.7	11.9
60°-70°	64.1	7.6
70°-80°	35.2	4.2
80°-90°	11.8	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°	327.7	38.7
0°-40°	495.0	58.4
0°-60°	736.2	86.9
0°-90°	847.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	847.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	482	482	482	482	482	
5°	466	475	473	476	480	44
15°	405	417	425	444	457	114
25°	327	339	351	370	389	150
35°	239	252	261	285	308	148
45°	147	160	178	204	221	116
55°	99	101	109	123	130	89
65°	63	66	66	62	61	62
75°	34	37	33	30	29	36
85°	10	11	11	12	10	11
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	482.2	482.2	482.2	482.2	482.2
2.5°	476.8	483.4	478.9	479.3	480.5
5°	466.4	474.7	473.1	476.4	480.5
7.5°	453.6	462.7	463.1	471.0	477.6
10°	439.4	449.0	451.9	463.9	472.2
12.5°	422.8	433.2	439.4	454.4	465.2
15°	405.4	416.6	425.3	443.6	457.3
17.5°	386.3	398.4	409.6	429.1	443.2
20°	366.8	379.7	392.6	410.8	427.0
22.5°	346.5	359.8	373.1	390.9	408.7
25°	326.6	339.0	351.1	370.1	389.2
27.5°	305.0	317.9	328.2	349.4	369.3
30°	283.4	296.3	306.2	328.2	349.0
32.5°	261.0	274.3	283.4	306.2	327.8
35°	238.6	251.5	261.4	284.7	308.3
37.5°	215.0	229.1	239.0	265.2	288.4
40°	192.5	205.8	217.9	245.2	267.2
42.5°	169.3	183.0	196.7	224.9	245.2
45°	146.9	159.8	178.0	203.7	221.2
47.5°	130.7	139.0	160.2	181.8	198.4
50°	119.9	123.2	142.7	161.8	175.5
52.5°	109.1	111.6	124.9	142.3	152.7
55°	99.2	101.3	108.7	123.2	129.9
57.5°	88.4	90.5	96.7	105.0	108.7
60°	79.7	81.3	86.3	87.6	86.7
62.5°	71.0	73.4	75.9	73.0	71.8
65°	62.7	66.4	66.0	62.2	61.4
67.5°	55.2	58.9	56.8	53.1	51.9
70°	47.7	51.5	48.6	44.8	43.6
72.5°	40.7	44.8	40.3	36.9	36.1
75°	34.0	37.3	32.8	30.3	29.0
77.5°	27.8	30.3	26.1	24.1	23.2
80°	21.6	23.2	19.9	18.7	18.3
82.5°	15.8	16.6	14.5	15.4	14.9
85°	10.4	10.8	11.2	11.6	10.4
87.5°	5.0	7.1	7.1	6.6	5.4
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	13.21	14.67	13.58	14.99	15.30	14.28	15.74	14.64	16.06	16.37
	3H	14.91	16.22	15.29	16.55	16.91	15.36	16.67	15.74	17.00	17.37
	4H	15.56	16.79	15.96	17.14	17.52	15.76	16.99	16.16	17.34	17.72
	6H	16.06	17.20	16.48	17.56	17.96	16.07	17.21	16.49	17.58	17.97
	8H	16.24	17.31	16.66	17.70	18.11	16.21	17.29	16.64	17.68	18.08
	12H	16.36	17.39	16.79	17.78	18.21	16.33	17.36	16.76	17.74	18.17
4H	2H	13.81	15.04	14.21	15.39	15.77	14.68	15.91	15.08	16.26	16.64
	3H	15.74	16.76	16.15	17.16	17.56	16.00	17.02	16.41	17.42	17.82
	4H	16.55	17.47	16.98	17.88	18.32	16.52	17.43	16.95	17.85	18.29
	6H	17.20	17.99	17.66	18.44	18.90	16.95	17.75	17.41	18.19	18.65
	8H	17.42	18.16	17.88	18.61	19.08	17.14	17.89	17.61	18.33	18.80
	12H	17.59	18.26	18.08	18.74	19.21	17.33	17.99	17.81	18.47	18.94
8H	4H	16.79	17.53	17.25	17.98	18.44	16.76	17.51	17.23	17.95	18.42
	6H	17.57	18.19	18.07	18.68	19.16	17.31	17.93	17.81	18.42	18.90
	8H	17.89	18.44	18.40	18.95	19.44	17.59	18.14	18.11	18.65	19.14
	12H	18.16	18.65	18.67	19.14	19.70	17.88	18.37	18.39	18.86	19.43
12H	4H	16.80	17.46	17.28	17.94	18.41	16.79	17.46	17.27	17.93	18.41
	6H	17.61	18.16	18.12	18.67	19.16	17.37	17.92	17.88	18.43	18.92
	8H	17.98	18.47	18.49	18.97	19.53	17.71	18.20	18.22	18.69	19.25