

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: P1059615

Luminaire Tested: S123RDR-H340D927-X4F0-XX-UDD-WVL-W

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1059615
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-H340D927-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: 2700K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

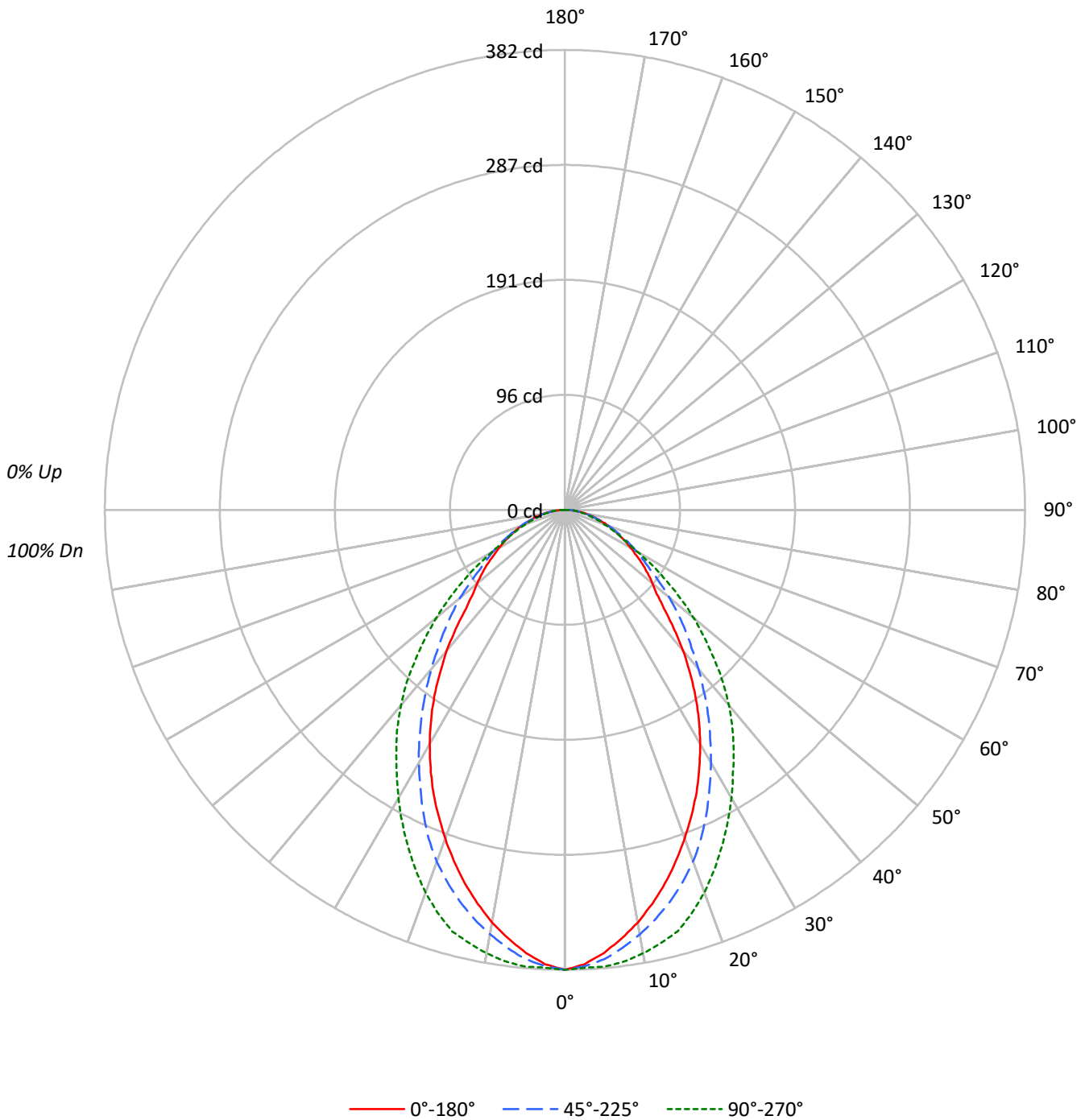
Lumens per Lamp: N/A
Luminaire Lumens: 671.2 lumens
Efficiency: N/A
Efficacy: 57.4 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 1.1 / 1.09
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')
CIE Type: Direct

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										
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	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°	4486	4486	4486
5°	4355	4417	4487
10°	4151	4269	4461
15°	3905	4096	4404
20°	3631	3886	4227
25°	3352	3603	3994
30°	3044	3289	3749
35°	2709	2969	3501
40°	2338	2646	3245
45°	1933	2341	2909
50°	1735	2066	2541
55°	1609	1763	2107
60°	1482	1606	1613
65°	1378	1453	1353
70°	1298	1322	1184
75°	1225	1180	1043
80°	1156	1068	981
85°	1105	1199	1105

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 2909 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	35.4	5.3
10°-20°	95.3	14.2
20°-30°	128.9	19.2
30°-40°	132.5	19.7
40°-50°	111.3	16.6
50°-60°	79.8	11.9
60°-70°	50.8	7.6
70°-80°	27.9	4.2
80°-90°	9.3	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°	259.6	38.7
0°-40°	392.1	58.4
0°-60°	583.2	86.9
0°-90°	671.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	671.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	382	382	382	382	382	
5°	370	376	375	377	381	35
15°	321	330	337	351	362	90
25°	259	269	278	293	308	119
35°	189	199	207	226	244	118
45°	116	127	141	161	175	92
55°	79	80	86	98	103	70
65°	50	53	52	49	49	49
75°	27	30	26	24	23	29
85°	8	8	9	9	8	9
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	382.0	382.0	382.0	382.0	382.0
2.5°	377.7	383.0	379.3	379.7	380.7
5°	369.5	376.1	374.7	377.4	380.7
7.5°	359.3	366.5	366.9	373.1	378.4
10°	348.1	355.7	358.0	367.5	374.1
12.5°	335.0	343.2	348.1	360.0	368.5
15°	321.2	330.0	336.9	351.4	362.3
17.5°	306.0	315.6	324.5	339.9	351.1
20°	290.6	300.8	311.0	325.4	338.3
22.5°	274.5	285.0	295.5	309.7	323.8
25°	258.7	268.6	278.1	293.2	308.3
27.5°	241.6	251.8	260.0	276.8	292.6
30°	224.5	234.7	242.6	260.0	276.5
32.5°	206.8	217.3	224.5	242.6	259.7
35°	189.0	199.2	207.1	225.5	244.2
37.5°	170.3	181.5	189.3	210.1	228.5
40°	152.5	163.0	172.6	194.3	211.7
42.5°	134.1	145.0	155.8	178.2	194.3
45°	116.4	126.6	141.0	161.4	175.2
47.5°	103.5	110.1	126.9	144.0	157.1
50°	95.0	97.6	113.1	128.2	139.1
52.5°	86.5	88.4	98.9	112.8	121.0
55°	78.6	80.2	86.1	97.6	102.9
57.5°	70.0	71.7	76.6	83.2	86.1
60°	63.1	64.4	68.4	69.4	68.7
62.5°	56.2	58.2	60.2	57.9	56.9
65°	49.6	52.6	52.3	49.3	48.7
67.5°	43.7	46.7	45.0	42.1	41.1
70°	37.8	40.8	38.5	35.5	34.5
72.5°	32.2	35.5	31.9	29.3	28.6
75°	27.0	29.6	26.0	24.0	23.0
77.5°	22.0	24.0	20.7	19.1	18.4
80°	17.1	18.4	15.8	14.8	14.5
82.5°	12.5	13.1	11.5	12.2	11.8
85°	8.2	8.5	8.9	9.2	8.2
87.5°	3.9	5.6	5.6	5.3	4.3
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	12.40	13.86	12.77	14.18	14.49	13.47	14.93	13.84	15.25	15.56
	3H	14.10	15.41	14.48	15.74	16.10	14.56	15.87	14.93	16.19	16.56
	4H	14.75	15.98	15.15	16.33	16.71	14.96	16.18	15.36	16.53	16.91
	6H	15.26	16.39	15.67	16.76	17.15	15.27	16.40	15.68	16.77	17.16
	8H	15.43	16.51	15.85	16.90	17.30	15.40	16.48	15.83	16.87	17.27
	12H	15.55	16.58	15.98	16.97	17.40	15.52	16.55	15.95	16.93	17.36
4H	2H	13.00	14.23	13.40	14.58	14.96	13.87	15.10	14.27	15.45	15.83
	3H	14.93	15.95	15.34	16.35	16.75	15.19	16.21	15.60	16.61	17.01
	4H	15.74	16.66	16.18	17.08	17.51	15.71	16.63	16.14	17.04	17.48
	6H	16.39	17.19	16.85	17.63	18.09	16.14	16.94	16.60	17.38	17.85
	8H	16.61	17.36	17.08	17.80	18.27	16.33	17.08	16.80	17.52	17.99
	12H	16.78	17.45	17.27	17.93	18.40	16.52	17.18	17.00	17.66	18.13
8H	4H	15.98	16.72	16.44	17.17	17.64	15.96	16.70	16.42	17.15	17.61
	6H	16.77	17.38	17.26	17.87	18.35	16.51	17.12	17.00	17.61	18.09
	8H	17.08	17.63	17.59	18.14	18.63	16.78	17.34	17.30	17.85	18.34
	12H	17.35	17.83	17.86	18.33	18.89	17.07	17.56	17.58	18.06	18.62
12H	4H	15.99	16.66	16.47	17.14	17.61	15.98	16.65	16.47	17.13	17.60
	6H	16.80	17.35	17.32	17.87	18.35	16.56	17.11	17.07	17.62	18.11
	8H	17.18	17.66	17.69	18.16	18.72	16.90	17.39	17.41	17.88	18.45