

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: P1059456

Luminaire Tested: S123RDR-H1000D930-X4F0-XX-UDD-BVL-W

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1059456
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-66)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S123RDR-H1000D930-X4F0-XX-UDD-BVL-W
Description: DEFINE 3 WHITE REGRESSED DIRECT RECESSED HOUSING WITH BLACK STRAIGHT BLADE LOUVER WITH DIFFUSER
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 3000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

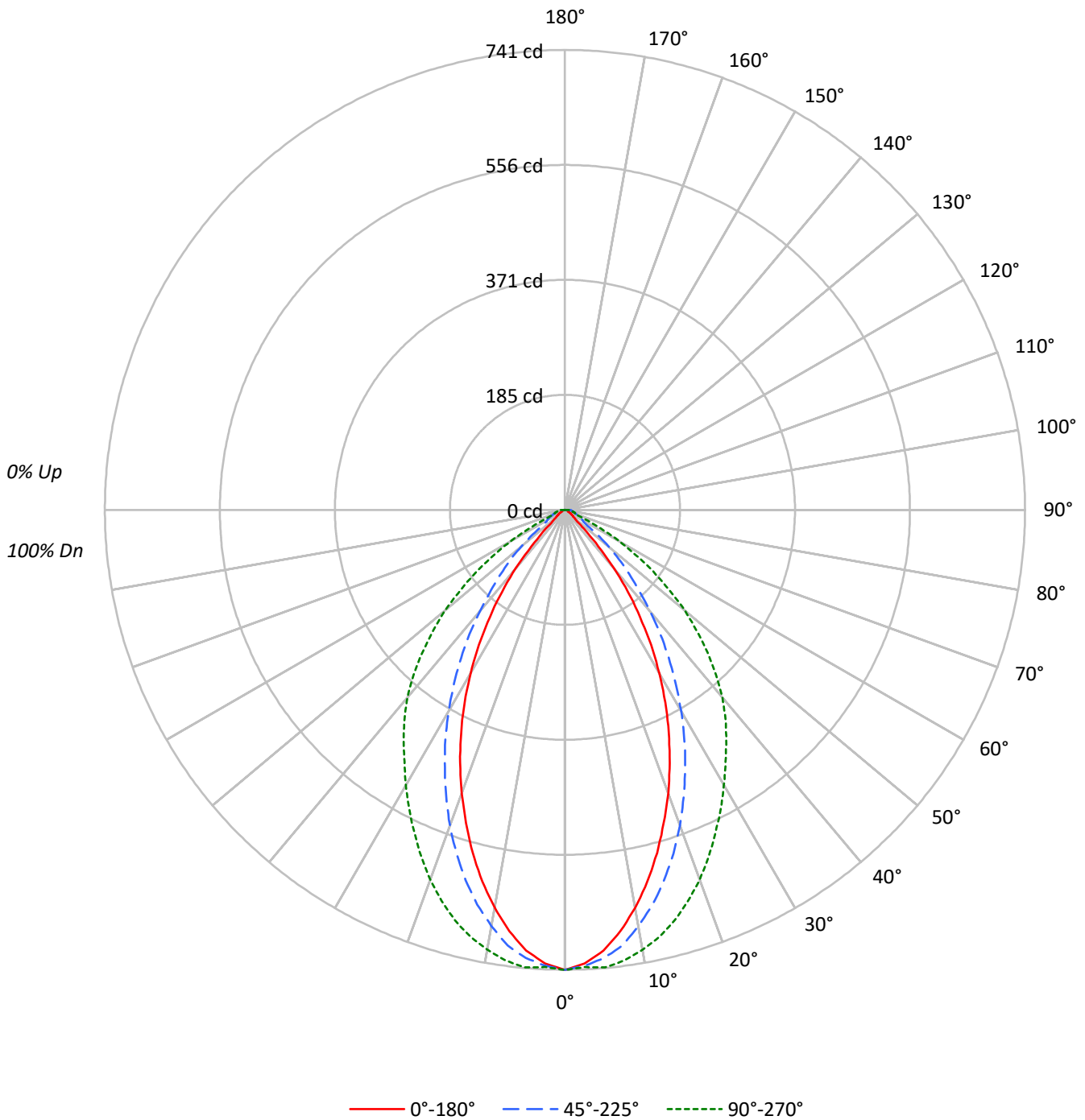
Lumens per Lamp: N/A
Luminaire Lumens: 889.8 lumens
Efficiency: N/A
Efficacy: 28.5 lumens/watt
Spacing Criteria (0/90/45): 0.79 / 1.06 / 0.94
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')
CIE Type: Direct

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	98	98	96	95	95	93	92	90				
2	105	99	94	90	102	97	92	88	94	90	87	91	87	85	88	85	83	81				
3	98	90	84	79	96	89	83	79	86	81	77	83	79	76	81	78	75	73				
4	92	83	76	71	90	81	75	70	79	74	70	77	72	69	75	71	68	66				
5	86	76	69	64	84	75	69	64	73	67	63	71	66	62	70	65	62	60				
6	81	70	63	58	79	69	63	58	68	62	57	66	61	57	65	60	57	55				
7	76	65	58	53	75	65	58	53	63	57	53	62	56	52	61	56	52	50				
8	72	61	54	49	70	60	53	49	59	53	49	58	52	48	57	52	48	47				
9	68	57	50	45	67	56	50	45	55	49	45	54	49	45	53	48	45	43				
10	64	53	46	42	63	53	46	42	52	46	42	51	45	42	50	45	42	40				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	8703	8703	8703
5°	8403	8541	8725
10°	7757	8118	8581
15°	6962	7507	8324
20°	6073	6767	7922
25°	5123	5931	7433
30°	4121	5071	6946
35°	3016	4174	6492
40°	1881	3254	6046
45°	712	2426	5385
50°	338	1673	4591
55°	260	917	3550
60°	183	777	2332
65°	136	675	975
70°	134	635	635
75°	177	662	662
80°	264	791	724
85°	525	1307	1051

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 5385 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	68.0	7.6
10°-20°	174.5	19.6
20°-30°	216.0	24.3
30°-40°	193.6	21.8
40°-50°	126.9	14.3
50°-60°	63.5	7.1
60°-70°	24.8	2.8
70°-80°	14.0	1.6
80°-90°	8.6	1.0
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°	458.5	51.5
0°-40°	652.1	73.3
0°-60°	842.5	94.7
0°-90°	889.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	889.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	741	741	741	741	741	
5°	713	725	725	732	740	66
15°	573	596	618	658	685	159
25°	395	420	458	523	574	180
35°	210	239	291	379	453	131
45°	43	69	146	250	324	41
55°	13	16	45	123	173	12
65°	5	15	24	32	35	5
75°	4	15	15	15	15	4
85°	4	10	10	10	8	3
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	741.2	741.2	741.2	741.2	741.2
2.5°	731.4	742.1	735.3	736.3	737.3
5°	712.9	724.6	724.6	732.4	740.2
7.5°	684.7	698.3	708.1	721.7	732.4
10°	650.6	667.2	680.8	705.1	719.7
12.5°	613.6	634.0	651.6	683.7	704.2
15°	572.7	596.1	617.5	658.4	684.7
17.5°	528.9	552.2	580.5	628.2	660.3
20°	486.0	509.4	541.5	595.1	634.0
22.5°	441.2	465.5	499.6	559.0	604.8
25°	395.4	419.8	457.8	523.0	573.7
27.5°	349.6	374.0	416.8	487.9	543.5
30°	303.9	328.2	374.0	450.0	512.3
32.5°	258.1	284.4	332.1	414.9	481.1
35°	210.4	238.6	291.2	378.9	452.9
37.5°	166.5	192.8	252.3	347.7	424.6
40°	122.7	151.0	212.3	317.5	394.4
42.5°	79.9	110.1	176.3	284.4	360.4
45°	42.9	69.1	146.1	250.3	324.3
47.5°	23.4	38.0	117.8	214.3	287.3
50°	18.5	21.4	91.6	183.1	251.3
52.5°	15.6	17.5	65.3	153.9	211.3
55°	12.7	15.6	44.8	122.7	173.4
57.5°	10.7	13.6	35.1	95.4	135.4
60°	7.8	11.7	33.1	70.1	99.3
62.5°	5.8	12.7	29.2	48.7	65.3
65°	4.9	14.6	24.3	32.1	35.1
67.5°	3.9	15.6	21.4	20.5	20.5
70°	3.9	14.6	18.5	17.5	18.5
72.5°	3.9	15.6	16.6	15.6	16.6
75°	3.9	14.6	14.6	14.6	14.6
77.5°	3.9	13.6	13.6	12.7	12.7
80°	3.9	11.7	11.7	11.7	10.7
82.5°	3.9	10.7	10.7	10.7	8.8
85°	3.9	9.7	9.7	9.7	7.8
87.5°	2.9	8.8	9.7	8.8	5.8
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	0.00	1.11	0.22	1.43	1.74	14.12	15.38	14.48	15.69	16.00
	3H	2.20	3.31	2.58	3.64	4.01	14.20	15.31	14.58	15.64	16.01
	4H	3.31	4.34	3.71	4.69	5.08	14.28	15.31	14.68	15.66	16.05
	6H	4.30	5.25	4.71	5.62	6.01	14.38	15.33	14.80	15.70	16.10
	8H	4.78	5.68	5.21	6.07	6.48	14.44	15.34	14.87	15.73	16.14
	12H	5.34	6.20	5.77	6.58	7.01	14.52	15.38	14.96	15.76	16.19
4H	2H	3.11	4.14	3.51	4.50	4.88	13.97	15.01	14.38	15.36	15.74
	3H	5.44	6.28	5.85	6.69	7.09	14.15	15.00	14.56	15.40	15.80
	4H	6.81	7.56	7.24	7.98	8.43	14.30	15.06	14.74	15.48	15.92
	6H	7.89	8.55	8.36	8.99	9.46	14.53	15.18	14.99	15.63	16.10
	8H	8.35	8.96	8.82	9.41	9.88	14.65	15.26	15.12	15.71	16.18
	12H	8.85	9.38	9.33	9.87	10.34	14.83	15.37	15.31	15.85	16.32
8H	4H	7.78	8.39	8.25	8.84	9.31	14.30	14.91	14.77	15.36	15.83
	6H	9.30	9.80	9.81	10.30	10.78	14.64	15.14	15.14	15.63	16.12
	8H	10.08	10.53	10.60	11.04	11.54	14.87	15.32	15.39	15.84	16.33
	12H	10.88	11.28	11.40	11.77	12.35	15.20	15.60	15.72	16.10	16.67
12H	4H	7.96	8.50	8.45	8.98	9.46	14.28	14.82	14.77	15.31	15.78
	6H	9.62	10.07	10.14	10.59	11.08	14.66	15.11	15.18	15.62	16.12
	8H	10.57	10.97	11.09	11.47	12.04	14.97	15.36	15.48	15.86	16.43