

Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269



Scaled data based on original data using
LM-79-2024 Approved Method: Electrical and Photometric Measurements of Solid-
State Lighting Products

Test Report Prepared for
Cooper Lighting Solutions

Brand: NEO-RAY

Report Number: P1059478

Luminaire Tested: S123RDRP-H1000D940-X4F0-XX-UDD-WVL-B

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2024
Report Number: P1059478
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2406-143-28)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S123RDRP-H1000D940-X4F0-XX-UDD-WVL-B
Description: DEFINE 3 BLACK REGRESSED DIRECT RECESSED HOUSING WITH WHITE STRAIGHT BLADE LOUVER WITH DIFFUSER
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 4000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

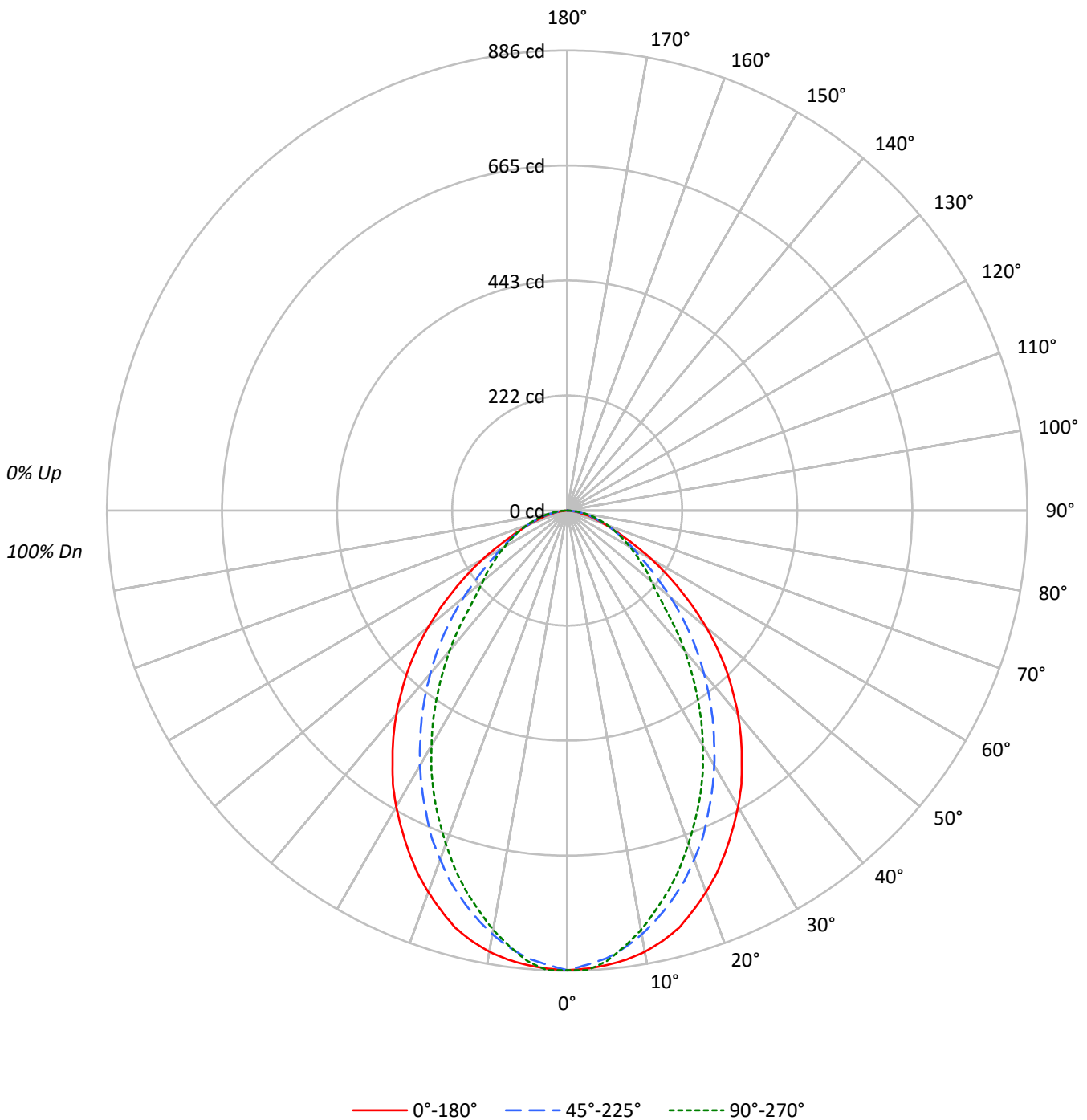
Lumens per Lamp: N/A
Luminaire Lumens: 1547.6 lumens
Efficiency: N/A
Efficacy: 49.6 lumens/watt
Spacing Criteria (0/90/45): 1.12 / 0.95 / 1.09
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 31.2
Input Voltage (V): 120
Input Current (A_{in}): 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

TEST NUMBER: P1059478

CATALOG NUMBER: S123RDRP-H1000D940-X4F0-XX-UDD-WVL-B

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	103	100	108	104	101	98	100	98	95	96	94	92	93	91	89	88
2	102	95	89	84	100	93	88	83	90	85	81	87	83	80	84	81	78	76
3	94	85	78	73	92	84	77	72	81	75	71	78	73	69	76	72	68	66
4	87	77	69	63	85	76	68	63	73	67	62	71	66	61	69	64	60	58
5	81	70	62	56	79	69	61	56	67	60	55	65	59	54	63	58	54	52
6	76	64	56	50	74	63	55	50	61	54	49	59	53	49	58	53	48	47
7	71	58	50	45	69	58	50	45	56	49	44	55	49	44	53	48	44	42
8	66	54	46	41	65	53	46	41	52	45	40	51	45	40	50	44	40	38
9	62	50	42	37	61	49	42	37	48	41	37	47	41	37	46	41	37	35
10	58	46	39	34	57	46	39	34	45	38	34	44	38	34	43	38	34	32

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	10391	10391	10391
5°	10355	10204	10268
10°	10285	9879	9777
15°	10111	9452	9193
20°	9768	8931	8532
25°	9370	8323	7854
30°	8926	7687	7081
35°	8400	6998	6266
40°	7842	6277	5396
45°	7189	5547	4434
50°	6372	4761	3847
55°	5421	3984	3527
60°	4422	3471	3271
65°	3368	3073	3042
70°	2630	2740	2850
75°	2123	2459	2654
80°	1582	2015	2448
85°	862	1293	2156

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 7189 cd/sqm

TEST NUMBER: P1059478

CATALOG NUMBER: S123RDRP-H1000D940-X4F0-XX-UDD-WVL-B

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	82.1	5.3
10°-20°	221.0	14.3
20°-30°	300.4	19.4
30°-40°	311.4	20.1
40°-50°	262.7	17.0
50°-60°	186.5	12.0
60°-70°	114.0	7.4
70°-80°	56.7	3.7
80°-90°	12.9	0.8
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°	603.6	39.0
0°-40°	915.0	59.1
0°-60°	1364.1	88.1
0°-90°	1547.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1547.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	885	885	885	885	885	
5°	878	878	866	871	871	83
15°	832	816	778	764	756	233
25°	723	691	642	619	606	332
35°	586	541	488	454	437	366
45°	433	387	334	288	267	332
55°	265	237	195	178	172	238
65°	121	117	111	111	110	124
75°	47	50	54	56	58	50
85°	6	7	10	14	16	9
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	884.9	884.9	884.9	884.9	884.9
2.5°	882.8	883.8	875.3	884.9	885.9
5°	878.5	878.5	865.7	871.1	871.1
7.5°	872.1	870.0	848.7	848.7	846.6
10°	862.6	856.2	828.5	823.2	820.0
12.5°	848.7	838.1	804.1	794.5	788.1
15°	831.7	815.8	777.5	763.6	756.2
17.5°	807.2	791.3	748.7	729.6	721.1
20°	781.7	758.3	714.7	695.6	682.8
22.5°	754.1	724.3	681.7	658.3	644.5
25°	723.2	691.3	642.4	619.0	606.2
27.5°	690.3	655.2	605.2	578.6	565.8
30°	658.3	617.9	566.9	537.1	522.2
32.5°	624.3	578.6	526.5	495.6	480.7
35°	586.0	541.4	488.2	454.1	437.1
37.5°	549.9	504.1	448.8	412.7	393.5
40°	511.6	465.8	409.5	372.2	352.0
42.5°	471.2	427.6	372.2	328.6	309.5
45°	432.9	387.1	334.0	288.2	267.0
47.5°	391.4	348.8	296.7	249.9	235.0
50°	348.8	309.5	260.6	218.0	210.6
52.5°	307.4	274.4	224.4	196.8	193.6
55°	264.8	237.2	194.6	177.6	172.3
57.5°	225.5	205.3	167.0	158.5	156.3
60°	188.3	171.2	147.8	142.5	139.3
62.5°	152.1	142.5	128.7	126.6	124.4
65°	121.2	117.0	110.6	110.6	109.5
67.5°	95.7	95.7	94.7	96.8	95.7
70°	76.6	77.6	79.8	81.9	83.0
72.5°	60.6	63.8	65.9	69.1	70.2
75°	46.8	50.0	54.2	56.4	58.5
77.5°	34.0	37.2	41.5	44.7	46.8
80°	23.4	25.5	29.8	34.0	36.2
82.5°	14.9	16.0	19.1	23.4	25.5
85°	6.4	7.4	9.6	13.8	16.0
87.5°	0.0	0.0	1.1	4.3	7.4
90°	0.0	0.0	0.0	0.0	0.0

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CATALOG NUMBER: S123RDRP-H1000D940-X4F0-XX-UDD-WVL-B

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	16.94	18.39	17.31	18.71	19.02	15.04	16.49	15.40	16.80	17.12
	3H	17.84	19.14	18.22	19.46	19.83	16.61	17.91	16.99	18.24	18.60
	4H	18.12	19.33	18.52	19.68	20.06	17.21	18.42	17.61	18.77	19.15
	6H	18.27	19.39	18.68	19.76	20.15	17.66	18.78	18.07	19.14	19.54
	8H	18.29	19.36	18.72	19.75	20.15	17.81	18.87	18.24	19.26	19.66
	12H	18.29	19.30	18.72	19.69	20.12	17.91	18.92	18.34	19.31	19.74
4H	2H	17.19	18.40	17.59	18.75	19.13	15.58	16.79	15.98	17.14	17.52
	3H	18.30	19.30	18.71	19.70	20.10	17.35	18.36	17.77	18.76	19.16
	4H	18.69	19.59	19.12	20.01	20.45	18.07	18.96	18.50	19.38	19.82
	6H	18.93	19.71	19.39	20.15	20.62	18.64	19.42	19.10	19.86	20.32
	8H	18.97	19.70	19.44	20.15	20.62	18.83	19.56	19.30	20.00	20.47
	12H	18.98	19.63	19.47	20.11	20.58	18.97	19.62	19.45	20.10	20.57
8H	4H	18.85	19.57	19.31	20.02	20.49	18.28	19.00	18.74	19.45	19.92
	6H	19.16	19.76	19.66	20.25	20.73	18.95	19.55	19.45	20.04	20.52
	8H	19.24	19.77	19.75	20.28	20.77	19.21	19.75	19.73	20.26	20.75
	12H	19.27	19.75	19.78	20.24	20.81	19.42	19.89	19.93	20.38	20.95
12H	4H	18.85	19.50	19.34	19.98	20.45	18.27	18.92	18.76	19.40	19.87
	6H	19.17	19.71	19.69	20.22	20.71	18.96	19.50	19.48	20.01	20.50
	8H	19.29	19.76	19.80	20.26	20.82	19.26	19.74	19.77	20.23	20.80