

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: P1059451

Luminaire Tested: S123RDR-H1000D927-X4F0-XX-UDD-WVL-B

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1059451
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: S123RDR-H1000D927-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: 2700K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

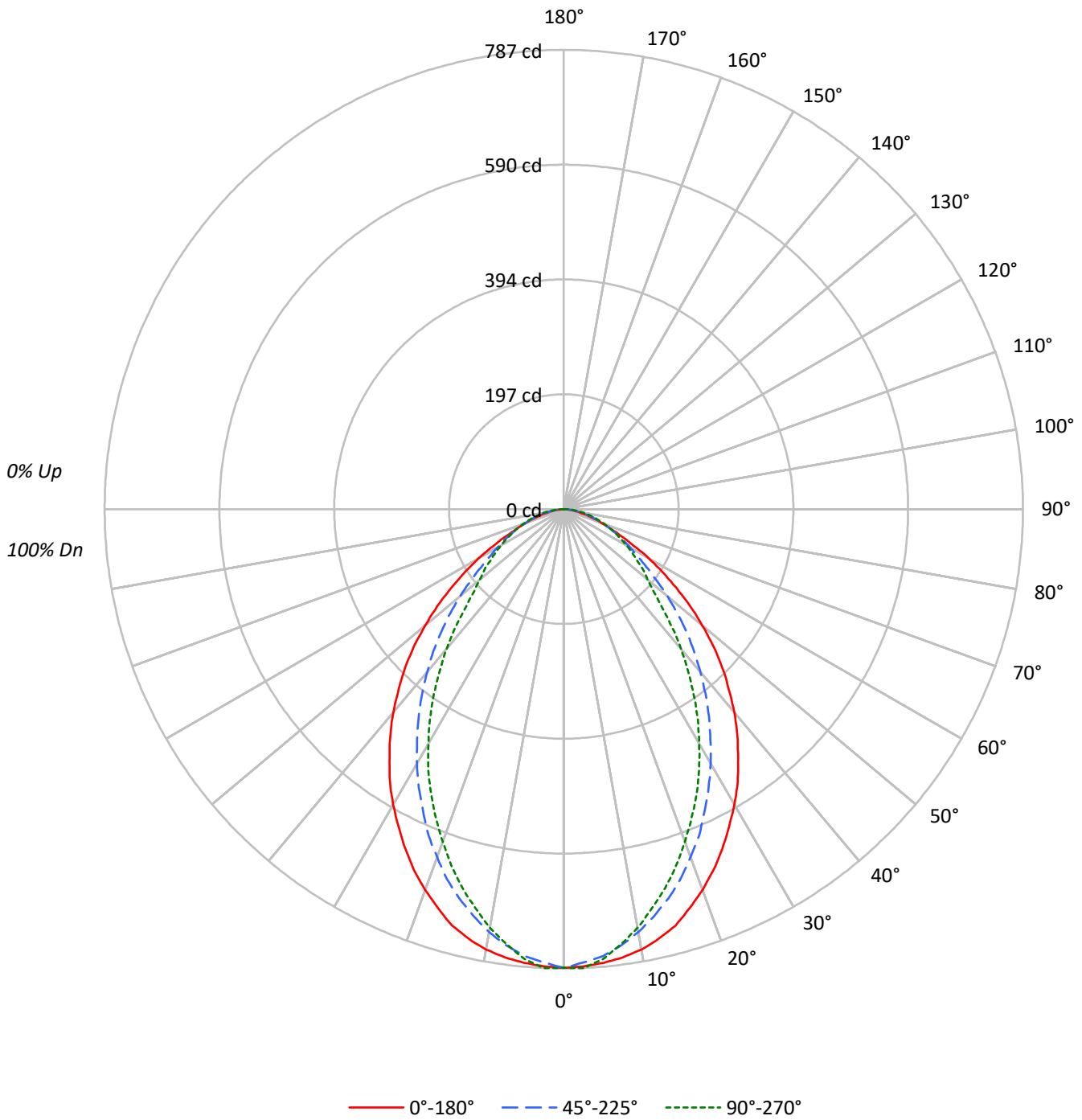
Lumens per Lamp: N/A
Luminaire Lumens: 1374.9 lumens
Efficiency: N/A
Efficacy: 44.1 lumens/watt
Spacing Criteria (0/90/45): 1.12 / 0.95 / 1.09
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 31.2
Input Voltage (V): 120
Input Current (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	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°	9231	9231	9231
5°	9199	9066	9121
10°	9137	8776	8686
15°	8983	8397	8167
20°	8678	7934	7580
25°	8324	7394	6978
30°	7931	6828	6290
35°	7463	6217	5566
40°	6967	5577	4793
45°	6387	4927	3939
50°	5661	4229	3418
55°	4817	3540	3134
60°	3927	3084	2907
65°	2992	2731	2703
70°	2335	2434	2530
75°	1887	2187	2359
80°	1407	1792	2171
85°	768	1145	1913

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 6387 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	73.0	5.3
10°-20°	196.3	14.3
20°-30°	266.9	19.4
30°-40°	276.7	20.1
40°-50°	233.4	17.0
50°-60°	165.7	12.0
60°-70°	101.2	7.4
70°-80°	50.4	3.7
80°-90°	11.4	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°	536.2	39.0
0°-40°	812.9	59.1
0°-60°	1211.9	88.1
0°-90°	1374.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1374.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	786	786	786	786	786	
5°	780	780	769	774	774	74
15°	739	725	691	678	672	207
25°	642	614	571	550	539	295
35°	521	481	434	404	388	326
45°	385	344	297	256	237	295
55°	235	211	173	158	153	211
65°	108	104	98	98	97	110
75°	42	44	48	50	52	45
85°	6	7	8	12	14	8
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	786.1	786.1	786.1	786.1	786.1
2.5°	784.2	785.2	777.6	786.1	787.1
5°	780.4	780.4	769.1	773.8	773.8
7.5°	774.8	772.9	754.0	754.0	752.1
10°	766.3	760.6	736.0	731.3	728.5
12.5°	754.0	744.5	714.3	705.8	700.1
15°	738.9	724.7	690.7	678.4	671.8
17.5°	717.1	703.0	665.2	648.2	640.6
20°	694.5	673.7	634.9	617.9	606.6
22.5°	669.9	643.4	605.7	584.9	572.6
25°	642.5	614.2	570.7	549.9	538.6
27.5°	613.2	582.0	537.6	514.0	502.7
30°	584.9	549.0	503.6	477.2	463.9
32.5°	554.6	514.0	467.7	440.3	427.1
35°	520.6	480.9	433.7	403.5	388.3
37.5°	488.5	447.9	398.7	366.6	349.6
40°	454.5	413.8	363.8	330.7	312.7
42.5°	418.6	379.8	330.7	292.0	275.0
45°	384.6	343.9	296.7	256.1	237.2
47.5°	347.7	309.9	263.6	222.0	208.8
50°	309.9	275.0	231.5	193.7	187.1
52.5°	273.1	243.8	199.4	174.8	172.0
55°	235.3	210.7	172.9	157.8	153.1
57.5°	200.3	182.4	148.3	140.8	138.9
60°	167.2	152.1	131.3	126.6	123.8
62.5°	135.1	126.6	114.3	112.4	110.5
65°	107.7	103.9	98.3	98.3	97.3
67.5°	85.0	85.0	84.1	86.0	85.0
70°	68.0	69.0	70.9	72.8	73.7
72.5°	53.9	56.7	58.6	61.4	62.4
75°	41.6	44.4	48.2	50.1	52.0
77.5°	30.2	33.1	36.8	39.7	41.6
80°	20.8	22.7	26.5	30.2	32.1
82.5°	13.2	14.2	17.0	20.8	22.7
85°	5.7	6.6	8.5	12.3	14.2
87.5°	0.0	0.0	0.9	3.8	6.6
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	16.53	17.98	16.90	18.30	18.61	14.63	16.08	14.99	16.39	16.71
	3H	17.43	18.72	17.81	19.05	19.42	16.20	17.50	16.58	17.83	18.19
	4H	17.71	18.92	18.11	19.27	19.65	16.80	18.01	17.20	18.36	18.74
	6H	17.86	18.98	18.27	19.35	19.74	17.25	18.37	17.66	18.73	19.13
	8H	17.88	18.95	18.31	19.34	19.74	17.40	18.46	17.83	18.85	19.25
	12H	17.88	18.89	18.31	19.28	19.71	17.50	18.51	17.93	18.89	19.32
4H	2H	16.78	17.99	17.18	18.34	18.72	15.17	16.38	15.57	16.73	17.11
	3H	17.89	18.89	18.30	19.29	19.69	16.94	17.94	17.36	18.35	18.75
	4H	18.28	19.18	18.71	19.59	20.03	17.66	18.55	18.09	18.97	19.41
	6H	18.52	19.30	18.98	19.74	20.21	18.23	19.01	18.69	19.45	19.91
	8H	18.56	19.29	19.03	19.74	20.20	18.42	19.15	18.88	19.59	20.06
	12H	18.57	19.22	19.06	19.70	20.17	18.56	19.21	19.04	19.69	20.16
8H	4H	18.44	19.16	18.90	19.61	20.08	17.87	18.59	18.33	19.04	19.51
	6H	18.75	19.35	19.25	19.84	20.32	18.54	19.14	19.04	19.63	20.11
	8H	18.83	19.36	19.34	19.87	20.36	18.80	19.34	19.32	19.85	20.34
	12H	18.86	19.34	19.37	19.83	20.40	19.01	19.48	19.52	19.97	20.54
12H	4H	18.44	19.09	18.92	19.57	20.04	17.86	18.51	18.35	18.99	19.46
	6H	18.76	19.30	19.28	19.81	20.30	18.55	19.09	19.07	19.60	20.09
	8H	18.88	19.35	19.39	19.85	20.41	18.85	19.33	19.36	19.82	20.39