

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: P1059022

Luminaire Tested: S123RDRP-S1000D840-X4F0-XX-UDD-BVL-B

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2024
Report Number: P1059022
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2406-143-30)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S123RDRP-S1000D840-X4F0-XX-UDD-BVL-B
Description: DEFINE 3 BLACK REGRESSED DIRECT RECESSED HOUSING WITH BLACK STRAIGHT BLADE
LOUVER WITH DIFFUSER
CORE LIGHT ENGINE
Light Source: 4000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

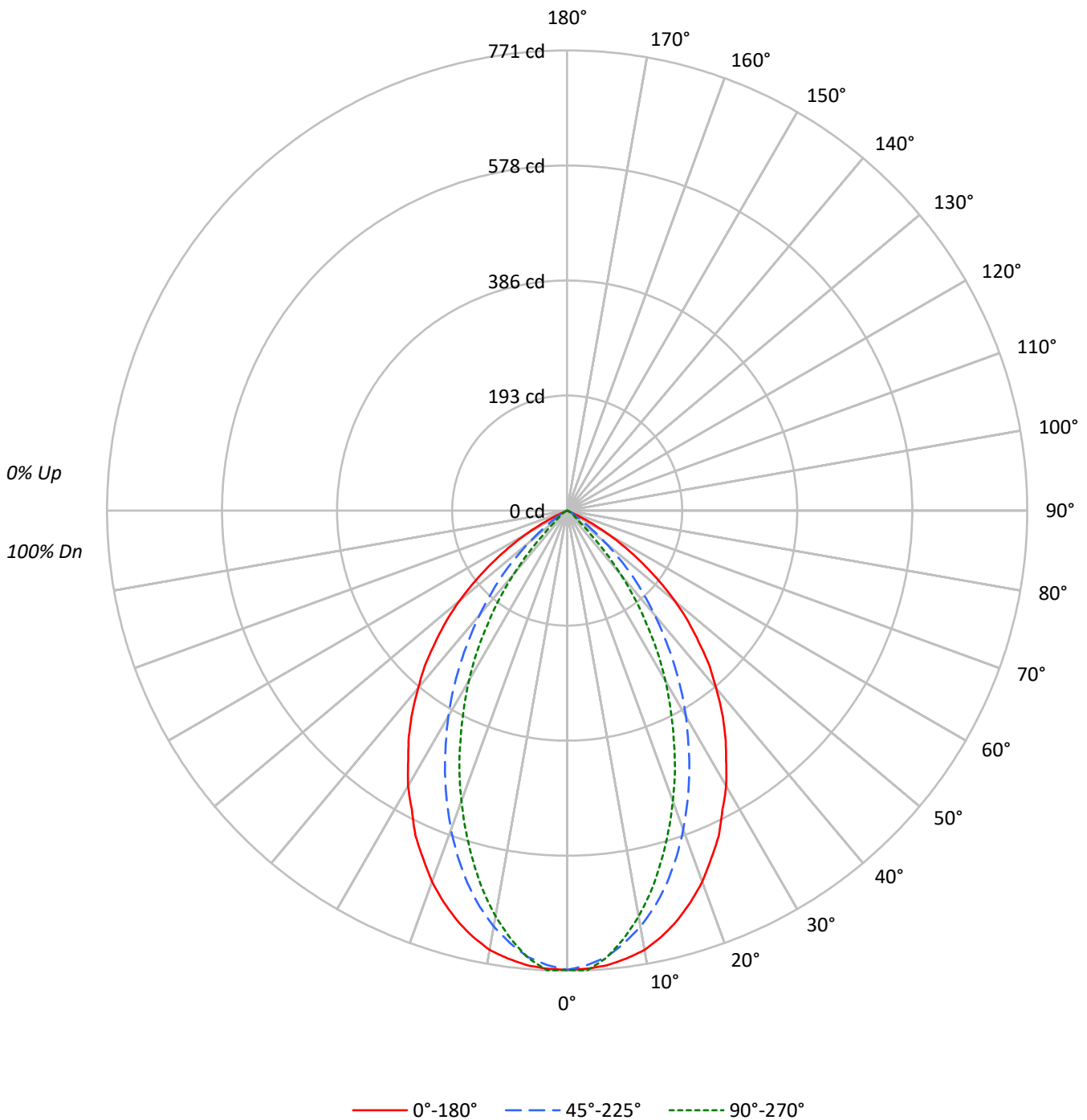
Lumens per Lamp: N/A
Luminaire Lumens: 878.2 lumens
Efficiency: N/A
Efficacy: 25.1 lumens/watt
Spacing Criteria (0/90/45): 1.06 / 0.81 / 0.94
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 35
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

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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	113	110	107	104	110	107	105	103	103	101	100	100	98	97	96	95	94	92
2	106	101	96	92	104	99	95	91	96	92	89	93	90	87	90	87	85	84
3	100	92	87	82	98	91	86	82	88	84	80	86	82	79	83	80	78	76
4	94	85	79	74	92	84	78	74	82	77	73	80	75	72	78	74	71	69
5	88	79	72	67	86	78	71	67	76	70	66	74	69	65	72	68	65	63
6	83	73	66	61	81	72	66	61	70	65	60	69	64	60	67	63	60	58
7	78	68	61	56	77	67	60	56	66	60	56	64	59	55	63	58	55	53
8	74	63	56	52	72	62	56	51	61	55	51	60	55	51	59	54	51	49
9	70	59	52	48	68	58	52	48	57	52	47	56	51	47	55	51	47	46
10	66	55	49	44	65	55	48	44	54	48	44	53	48	44	52	47	44	42

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	9037	9037	9037
5°	9014	8852	8868
10°	8910	8438	8231
15°	8648	7850	7397
20°	8270	7109	6473
25°	7788	6279	5475
30°	7226	5394	4470
35°	6627	4460	3323
40°	5946	3495	2128
45°	5186	2552	885
50°	4302	1516	340
55°	3171	635	254
60°	1921	233	146
65°	517	139	69
70°	0	41	41
75°	0	0	54
80°	0	0	0
85°	0	0	0

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 5186 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	70.9	8.1
10°-20°	182.8	20.8
20°-30°	227.9	25.9
30°-40°	203.8	23.2
40°-50°	128.6	14.6
50°-60°	53.8	6.1
60°-70°	10.1	1.2
70°-80°	0.3	0.0
80°-90°	0.0	0.0
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°	481.6	54.8
0°-40°	685.4	78.0
0°-60°	867.8	98.8
0°-90°	878.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	878.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	770	770	770	770	770	
5°	765	763	751	754	752	72
15°	711	694	646	618	608	200
25°	601	553	485	442	423	275
35°	462	395	311	255	232	288
45°	312	243	154	82	53	241
55°	155	107	31	12	12	139
65°	19	14	5	2	2	26
75°	0	0	0	0	1	0
85°	0	0	0	0	0	0
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	769.6	769.6	769.6	769.6	769.6
2.5°	768.4	769.6	762.2	769.6	770.9
5°	764.7	763.4	751.0	753.5	752.3
7.5°	757.2	753.5	731.2	726.3	723.8
10°	747.3	737.4	707.7	695.3	690.3
12.5°	731.2	717.6	679.2	659.3	651.9
15°	711.4	694.0	645.7	618.4	608.5
17.5°	687.8	663.1	608.5	578.8	563.9
20°	661.8	627.1	568.9	532.9	518.0
22.5°	630.8	592.4	526.7	488.3	472.2
25°	601.1	552.8	484.6	442.4	422.6
27.5°	563.9	513.1	440.0	396.6	375.5
30°	532.9	474.7	397.8	349.5	329.7
32.5°	495.7	435.0	354.5	301.2	282.6
35°	462.3	395.4	311.1	255.3	231.8
37.5°	426.3	356.9	267.7	209.5	187.1
40°	387.9	318.5	228.0	163.6	138.8
42.5°	353.2	280.1	188.4	121.5	96.7
45°	312.3	242.9	153.7	81.8	53.3
47.5°	275.1	208.2	116.5	45.9	28.5
50°	235.5	172.3	83.0	23.5	18.6
52.5°	194.6	137.6	54.5	16.1	14.9
55°	154.9	106.6	31.0	12.4	12.4
57.5°	116.5	76.8	16.1	9.9	8.7
60°	81.8	50.8	9.9	7.4	6.2
62.5°	47.1	29.7	7.4	5.0	5.0
65°	18.6	13.6	5.0	2.5	2.5
67.5°	1.2	3.7	2.5	1.2	1.2
70°	0.0	0.0	1.2	1.2	1.2
72.5°	0.0	0.0	1.2	1.2	1.2
75°	0.0	0.0	0.0	0.0	1.2
77.5°	0.0	0.0	0.0	0.0	0.0
80°	0.0	0.0	0.0	0.0	0.0
82.5°	0.0	0.0	0.0	0.0	0.0
85°	0.0	0.0	0.0	0.0	0.0
87.5°	0.0	0.0	0.0	0.0	0.0
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	12.84	14.01	13.20	14.33	14.64	0.00	0.00	0.00	0.00	0.00
	3H	12.68	13.71	13.06	14.04	14.41	0.00	0.00	0.00	0.00	0.00
	4H	12.59	13.55	13.00	13.90	14.28	0.00	0.00	0.00	0.00	0.00
	6H	12.50	13.37	12.91	13.74	14.14	0.00	0.00	0.00	0.00	0.00
	8H	12.45	13.27	12.88	13.66	14.07	0.00	0.00	0.00	0.00	0.00
	12H	12.40	13.18	12.83	13.57	14.00	0.00	0.00	0.00	0.00	0.00
4H	2H	12.60	13.55	13.00	13.90	14.29	0.00	0.00	0.00	0.00	0.00
	3H	12.43	13.20	12.84	13.61	14.01	0.00	0.00	0.00	0.00	0.00
	4H	12.33	13.01	12.76	13.43	13.88	0.00	0.00	0.00	0.00	0.00
	6H	12.23	12.81	12.70	13.26	13.73	0.00	0.00	0.00	0.00	0.00
	8H	12.16	12.71	12.64	13.16	13.63	0.00	0.00	0.00	0.00	0.00
	12H	12.11	12.58	12.60	13.07	13.55	0.00	0.00	0.00	0.00	0.00
8H	4H	12.16	12.71	12.64	13.16	13.63	0.00	0.00	0.00	0.00	0.00
	6H	12.05	12.49	12.55	12.99	13.47	0.00	0.00	0.00	0.00	0.00
	8H	11.98	12.37	12.50	12.89	13.39	0.00	0.00	0.00	0.00	0.00
	12H	11.92	12.27	12.44	12.77	13.34	0.00	0.00	0.00	0.00	0.00
12H	4H	12.11	12.58	12.60	13.07	13.55	0.00	0.00	0.00	0.00	0.00
	6H	11.98	12.37	12.50	12.89	13.39	0.00	0.00	0.00	0.00	0.00
	8H	11.92	12.27	12.44	12.77	13.34	0.00	0.00	0.00	0.00	0.00