

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: P1059536

Luminaire Tested: S123RDR-H1165D930-X4F0-XX-UDD-BVL-S

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1059536
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-69)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S123RDR-H1165D930-X4F0-XX-UDD-BVL-S
Description: DEFINE 3 SILVER 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

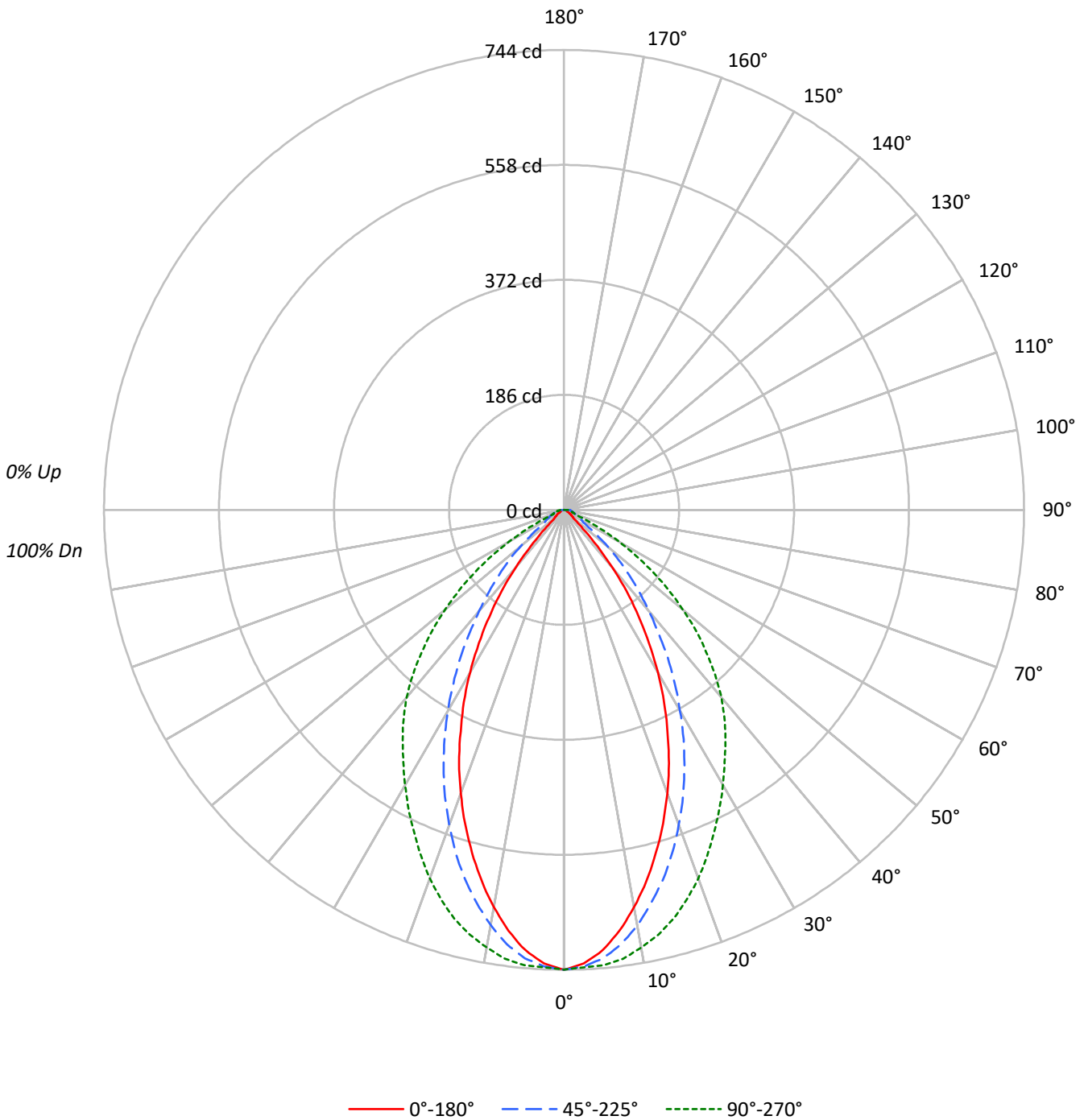
Lumens per Lamp: N/A
Luminaire Lumens: 893.5 lumens
Efficiency: N/A
Efficacy: 24.5 lumens/watt
Spacing Criteria (0/90/45): 0.79 / 1.06 / 0.94
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 36.5
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	112	108	105	102	109	106	103	101	102	100	98	98	96	95	95	93	92	90
2	105	99	94	89	102	97	92	88	94	90	86	90	87	85	88	85	83	81
3	98	90	84	79	96	89	83	78	86	81	77	83	79	76	81	78	75	73
4	92	83	76	71	90	81	75	70	79	74	69	77	72	69	75	71	68	66
5	86	76	69	64	84	75	68	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	64	58	53	63	57	53	62	56	52	61	56	52	50
8	72	61	54	49	70	60	53	49	59	53	48	58	52	48	57	52	48	46
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	41	40

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	8735	8735	8735
5°	8433	8581	8714
10°	7785	8138	8572
15°	6983	7523	8324
20°	6098	6780	7931
25°	5128	5969	7442
30°	4118	5090	6971
35°	3016	4190	6522
40°	1865	3260	6067
45°	717	2456	5402
50°	353	1682	4571
55°	278	931	3587
60°	188	775	2405
65°	158	695	1075
70°	154	625	625
75°	204	671	617
80°	304	845	690
85°	458	1374	916

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 5402 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	68.2	7.6
10°-20°	174.6	19.5
20°-30°	216.7	24.3
30°-40°	194.2	21.7
40°-50°	127.6	14.3
50°-60°	63.9	7.2
60°-70°	25.2	2.8
70°-80°	14.1	1.6
80°-90°	8.9	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°	459.5	51.4
0°-40°	653.7	73.2
0°-60°	845.3	94.6
0°-90°	893.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	893.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	744	744	744	744	744	
5°	715	727	728	732	739	66
15°	574	593	619	661	685	160
25°	396	421	461	526	574	181
35°	210	239	292	382	455	131
45°	43	72	148	249	325	41
55°	14	16	46	123	175	12
65°	6	16	25	32	39	6
75°	4	15	15	14	14	5
85°	3	10	10	10	7	4
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	743.9	743.9	743.9	743.9	743.9
2.5°	734.8	745.0	739.3	739.3	740.5
5°	715.4	726.8	728.0	732.5	739.3
7.5°	687.0	701.8	708.6	722.3	732.5
10°	652.9	668.8	682.5	706.3	718.9
12.5°	615.3	631.3	651.7	684.7	704.1
15°	574.4	592.6	618.8	660.8	684.7
17.5°	532.3	550.5	582.4	630.1	660.8
20°	488.0	508.4	542.6	597.1	634.7
22.5°	443.6	466.3	502.7	561.9	605.1
25°	395.8	420.8	460.7	525.5	574.4
27.5°	350.3	376.5	418.6	489.1	544.8
30°	303.7	329.9	375.4	451.6	514.1
32.5°	255.9	285.5	333.3	416.3	483.4
35°	210.4	238.9	292.3	382.2	455.0
37.5°	166.1	194.5	250.2	349.2	426.5
40°	121.7	151.3	212.7	317.3	395.8
42.5°	79.6	110.3	179.7	285.5	361.7
45°	43.2	71.7	147.9	249.1	325.3
47.5°	23.9	38.7	119.4	215.0	290.0
50°	19.3	21.6	92.1	183.1	250.2
52.5°	15.9	18.2	66.0	152.4	213.8
55°	13.6	15.9	45.5	122.8	175.2
57.5°	11.4	13.6	36.4	94.4	137.6
60°	8.0	13.6	33.0	69.4	102.4
62.5°	6.8	13.6	28.4	47.8	68.2
65°	5.7	15.9	25.0	31.8	38.7
67.5°	4.5	15.9	21.6	20.5	20.5
70°	4.5	15.9	18.2	17.1	18.2
72.5°	4.5	17.1	17.1	15.9	15.9
75°	4.5	14.8	14.8	13.6	13.6
77.5°	4.5	13.6	13.6	12.5	12.5
80°	4.5	12.5	12.5	11.4	10.2
82.5°	4.5	11.4	11.4	10.2	9.1
85°	3.4	10.2	10.2	10.2	6.8
87.5°	3.4	9.1	10.2	9.1	5.7
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	1.23	0.33	1.54	1.85	14.08	15.33	14.44	15.65	15.96
	3H	2.49	3.60	2.87	3.93	4.30	14.16	15.27	14.54	15.60	15.96
	4H	3.66	4.69	4.06	5.04	5.43	14.22	15.25	14.62	15.60	15.99
	6H	4.70	5.65	5.12	6.02	6.42	14.32	15.27	14.73	15.64	16.03
	8H	5.24	6.14	5.67	6.53	6.94	14.38	15.28	14.81	15.67	16.07
	12H	5.72	6.58	6.15	6.96	7.39	14.44	15.30	14.88	15.69	16.12
4H	2H	3.24	4.27	3.64	4.63	5.01	13.94	14.97	14.34	15.32	15.71
	3H	5.70	6.55	6.12	6.95	7.36	14.11	14.96	14.52	15.36	15.77
	4H	7.05	7.81	7.49	8.23	8.67	14.24	14.99	14.67	15.41	15.86
	6H	8.18	8.83	8.64	9.28	9.74	14.45	15.11	14.92	15.55	16.02
	8H	8.68	9.29	9.15	9.74	10.21	14.58	15.19	15.05	15.64	16.11
	12H	9.14	9.68	9.63	10.16	10.64	14.74	15.28	15.22	15.76	16.23
8H	4H	7.97	8.58	8.44	9.02	9.50	14.24	14.85	14.71	15.30	15.77
	6H	9.56	10.06	10.07	10.56	11.04	14.57	15.07	15.07	15.57	16.05
	8H	10.39	10.84	10.91	11.36	11.85	14.80	15.25	15.32	15.76	16.26
	12H	11.17	11.57	11.68	12.06	12.63	15.12	15.52	15.64	16.02	16.59
12H	4H	8.13	8.67	8.62	9.16	9.63	14.23	14.77	14.72	15.25	15.73
	6H	9.88	10.33	10.40	10.85	11.34	14.60	15.05	15.12	15.57	16.06
	8H	10.89	11.29	11.41	11.78	12.36	14.91	15.31	15.43	15.80	16.38