

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: P1059088

Luminaire Tested: S123RDRP-S1165D830-X4F0-XX-UDD-SVL-B

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2024
Report Number: P1059088
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2406-143-29)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S123RDRP-S1165D830-X4F0-XX-UDD-SVL-B
Description: DEFINE 3 BLACK REGRESSED DIRECT RECESSED HOUSING WITH SILVER STRAIGHT BLADE
LOUVER WITH DIFFUSER
CORE LIGHT ENGINE
Light Source: 3000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

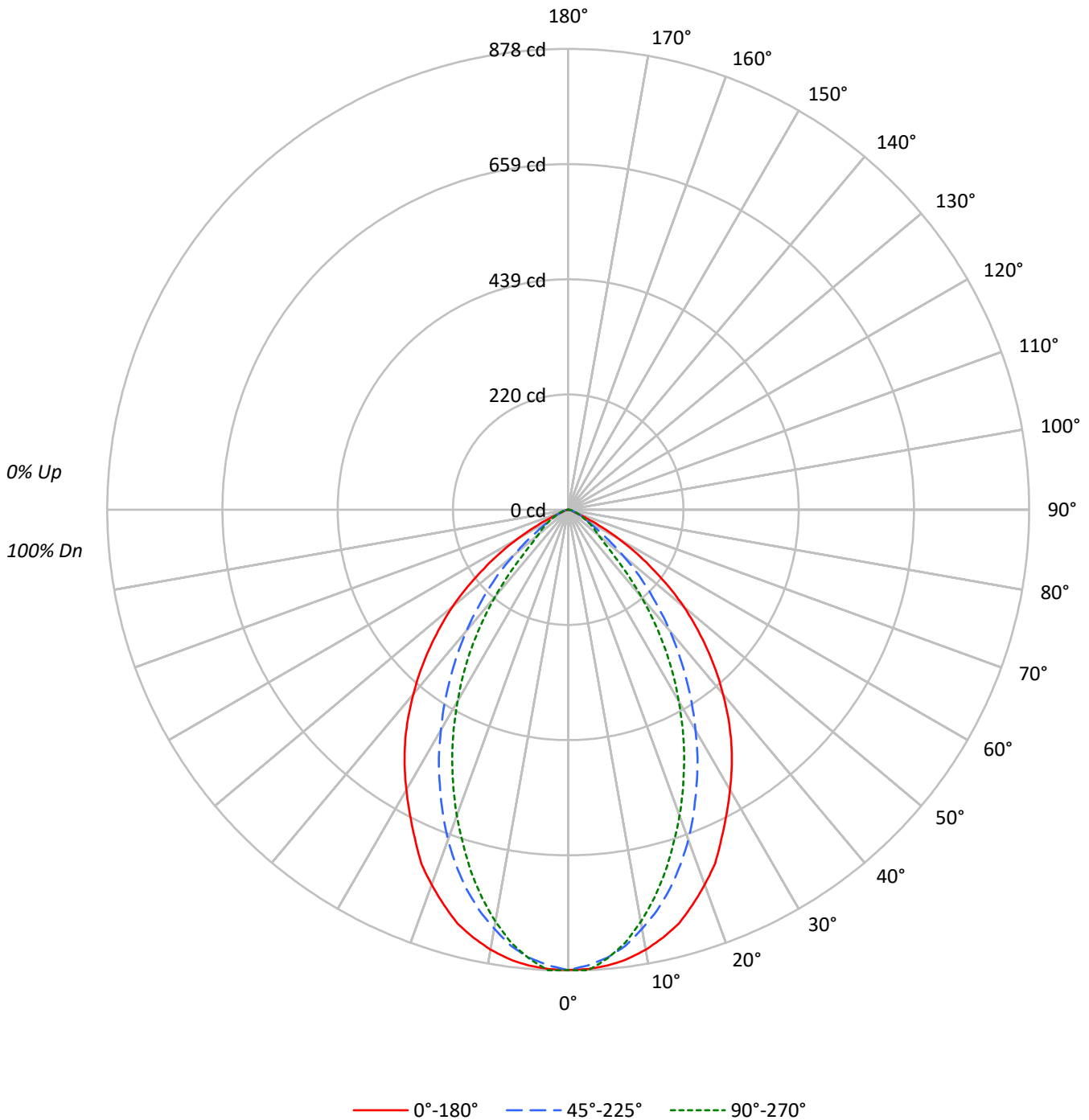
Lumens per Lamp: N/A
Luminaire Lumens: 1132.2 lumens
Efficiency: N/A
Efficacy: 27.1 lumens/watt
Spacing Criteria (0/90/45): 1.08 / 0.85 / 0.98
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 41.8
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	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					100			
1	112	109	106	103	110	107	104	102	103	100	98	99	97	95	95	94	93	91					91			
2	105	99	94	90	103	97	93	89	94	90	87	91	88	85	88	86	83	82					82			
3	98	90	84	80	96	89	83	79	86	82	78	84	80	76	81	78	75	73					73			
4	92	83	76	71	90	82	75	70	79	74	70	77	73	69	75	71	68	66					66			
5	86	76	69	64	84	75	68	63	73	67	63	71	66	62	70	65	62	60					60			
6	81	70	63	58	79	69	62	58	68	62	57	66	61	57	65	60	56	55					55			
7	76	65	58	53	74	64	57	53	63	57	52	61	56	52	60	55	52	50					50			
8	71	60	53	48	70	60	53	48	58	52	48	57	52	48	56	51	48	46					46			
9	67	56	49	45	66	56	49	44	55	48	44	54	48	44	53	48	44	42					42			
10	64	52	46	41	63	52	46	41	51	45	41	50	45	41	49	44	41	39					39			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	10298	10298	10298
5°	10274	10098	10113
10°	10149	9664	9502
15°	9919	9094	8681
20°	9501	8364	7753
25°	8953	7494	6772
30°	8358	6572	5707
35°	7765	5605	4593
40°	7034	4620	3329
45°	6201	3585	2006
50°	5258	2505	1365
55°	4002	1501	1140
60°	2614	956	892
65°	1095	717	717
70°	374	512	560
75°	309	367	431
80°	183	277	365
85°	189	189	364

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 6201 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	81.0	7.2
10°-20°	212.0	18.7
20°-30°	271.8	24.0
30°-40°	255.1	22.5
40°-50°	178.0	15.7
50°-60°	92.0	8.1
60°-70°	31.5	2.8
70°-80°	9.0	0.8
80°-90°	1.9	0.2
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°	564.8	49.9
0°-40°	819.9	72.4
0°-60°	1089.9	96.3
0°-90°	1132.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1132.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	877	877	877	877	877	
5°	872	870	857	861	858	83
15°	816	796	748	724	714	229
25°	691	648	578	539	523	318
35°	542	475	391	341	320	337
45°	373	306	216	149	121	287
55°	196	147	73	57	56	176
65°	39	34	26	24	26	47
75°	7	7	8	10	10	7
85°	1	1	1	1	3	1
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	877.0	877.0	877.0	877.0	877.0
2.5°	875.7	877.0	868.9	877.0	878.4
5°	871.6	870.2	856.7	860.7	858.0
7.5°	863.5	859.4	837.7	832.2	832.2
10°	851.2	843.1	810.5	801.0	796.9
12.5°	834.9	824.1	782.0	764.4	757.6
15°	815.9	795.6	748.1	723.6	714.1
17.5°	788.8	761.6	710.0	681.5	666.6
20°	760.3	726.3	669.3	635.4	620.4
22.5°	730.4	689.7	624.5	587.9	571.6
25°	691.0	647.6	578.4	539.0	522.7
27.5°	653.0	606.9	533.6	488.8	472.5
30°	616.4	562.1	484.7	441.2	420.9
32.5°	579.7	518.6	438.5	391.0	372.0
35°	541.7	475.2	391.0	340.8	320.4
37.5°	501.0	433.1	346.2	291.9	267.5
40°	458.9	388.3	301.4	240.3	217.2
42.5°	416.8	347.6	256.6	194.1	167.0
45°	373.4	305.5	215.9	149.3	120.8
47.5°	329.9	263.4	176.5	108.6	91.0
50°	287.8	224.0	137.1	80.1	74.7
52.5°	241.7	186.0	103.2	66.5	65.2
55°	195.5	146.6	73.3	57.0	55.7
57.5°	154.8	114.0	52.9	47.5	46.2
60°	111.3	81.5	40.7	39.4	38.0
62.5°	73.3	55.7	32.6	31.2	31.2
65°	39.4	33.9	25.8	24.4	25.8
67.5°	16.3	19.0	19.0	20.4	20.4
70°	10.9	12.2	14.9	16.3	16.3
72.5°	8.1	9.5	10.9	12.2	12.2
75°	6.8	6.8	8.1	9.5	9.5
77.5°	4.1	5.4	5.4	6.8	8.1
80°	2.7	4.1	4.1	5.4	5.4
82.5°	1.4	2.7	2.7	4.1	4.1
85°	1.4	1.4	1.4	1.4	2.7
87.5°	0.0	0.0	0.0	0.0	1.4
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	14.43	15.69	14.80	16.01	16.32	7.94	9.20	8.31	9.51	9.83
	3H	14.39	15.50	14.77	15.83	16.19	8.72	9.83	9.10	10.16	10.52
	4H	14.33	15.36	14.74	15.71	16.10	8.92	9.95	9.32	10.30	10.68
	6H	14.26	15.21	14.68	15.58	15.97	9.06	10.00	9.48	10.37	10.77
	8H	14.22	15.11	14.65	15.50	15.91	9.10	9.99	9.53	10.38	10.79
	12H	14.18	15.03	14.61	15.41	15.84	9.11	9.97	9.55	10.35	10.78
4H	2H	14.28	15.31	14.68	15.66	16.05	8.20	9.23	8.60	9.58	9.96
	3H	14.27	15.10	14.68	15.51	15.91	9.11	9.94	9.52	10.35	10.75
	4H	14.21	14.96	14.65	15.38	15.82	9.38	10.12	9.81	10.54	10.99
	6H	14.16	14.79	14.62	15.24	15.71	9.59	10.23	10.06	10.68	11.15
	8H	14.10	14.70	14.58	15.15	15.62	9.65	10.25	10.12	10.70	11.17
	12H	14.06	14.58	14.55	15.07	15.54	9.69	10.22	10.18	10.70	11.18
8H	4H	14.10	14.70	14.57	15.14	15.62	9.36	9.96	9.83	10.40	10.88
	6H	14.04	14.52	14.54	15.02	15.50	9.63	10.11	10.13	10.61	11.09
	8H	13.99	14.42	14.51	14.94	15.43	9.74	10.17	10.26	10.69	11.18
	12H	13.95	14.33	14.47	14.83	15.40	9.81	10.20	10.33	10.69	11.27
12H	4H	14.05	14.58	14.54	15.06	15.54	9.32	9.85	9.81	10.33	10.81
	6H	13.98	14.42	14.50	14.93	15.43	9.59	10.02	10.11	10.54	11.03
	8H	13.95	14.33	14.47	14.83	15.40	9.73	10.11	10.25	10.61	11.18