

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: P1059736

Luminaire Tested: S123RDR-H775D830-X4F0-XX-UDD-SVL-B

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1059736
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: S123RDR-H775D830-X4F0-XX-UDD-SVL-B
Description: DEFINE 3 BLACK REGRESSED DIRECT RECESSED HOUSING WITH SILVER STRAIGHT BLADE LOUVER WITH DIFFUSER
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 3000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

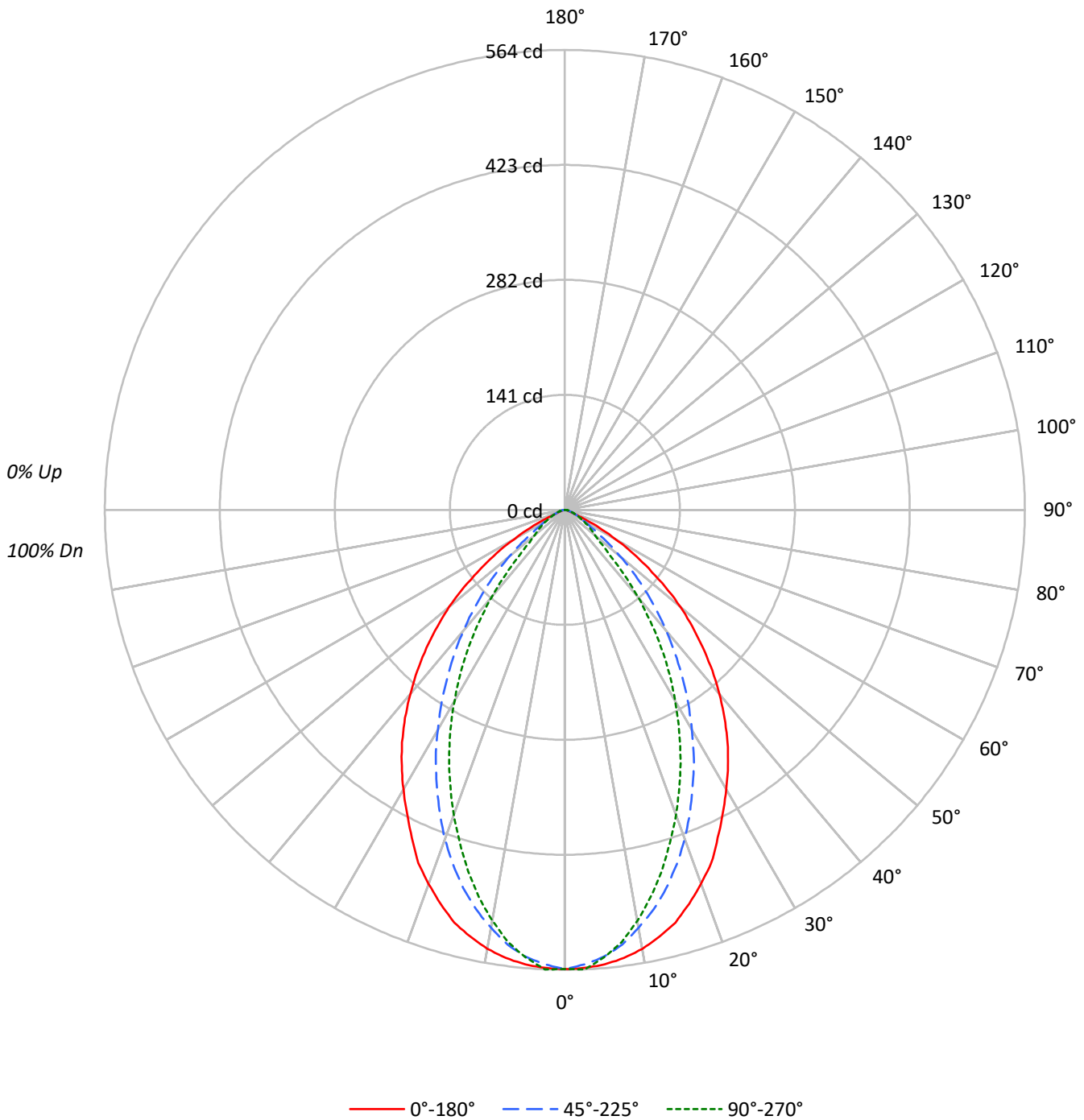
Lumens per Lamp: N/A
Luminaire Lumens: 727.0 lumens
Efficiency: N/A
Efficacy: 30.9 lumens/watt
Spacing Criteria (0/90/45): 1.08 / 0.85 / 0.98
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 23.5
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	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	109	106	103	110	107	104	102	103	100	98	99	97	95	95	94	93	91				
2	105	99	94	90	103	97	93	89	94	90	87	91	88	85	88	86	83	82				
3	98	90	84	80	96	89	83	79	86	82	78	84	80	76	81	78	75	73				
4	92	83	76	71	90	82	75	70	79	74	70	77	73	69	75	71	68	66				
5	86	76	69	64	84	75	68	63	73	67	63	71	66	62	70	65	62	60				
6	81	70	63	58	79	69	62	58	68	62	57	66	61	57	65	60	56	55				
7	76	65	58	53	74	64	57	53	63	57	52	61	56	52	60	55	52	50				
8	71	60	53	48	70	60	53	48	58	52	48	57	52	48	56	51	48	46				
9	67	56	49	45	66	56	49	44	55	48	44	54	48	44	53	48	44	42				
10	64	52	46	41	63	52	46	41	51	45	41	50	45	41	49	44	41	39				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	6612	6612	6612
5°	6596	6484	6494
10°	6517	6205	6101
15°	6369	5839	5574
20°	6101	5371	4978
25°	5749	4812	4348
30°	5367	4220	3664
35°	4986	3599	2949
40°	4516	2966	2138
45°	3981	2302	1289
50°	3376	1608	875
55°	2569	964	731
60°	1679	615	573
65°	703	461	461
70°	240	330	360
75°	200	236	277
80°	115	176	237
85°	121	121	229

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 3981 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	52.0	7.2
10°-20°	136.1	18.7
20°-30°	174.5	24.0
30°-40°	163.8	22.5
40°-50°	114.3	15.7
50°-60°	59.1	8.1
60°-70°	20.2	2.8
70°-80°	5.8	0.8
80°-90°	1.2	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°	362.7	49.9
0°-40°	526.5	72.4
0°-60°	699.8	96.3
0°-90°	727.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	727.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	563	563	563	563	563	
5°	560	559	550	553	551	53
15°	524	511	480	465	458	147
25°	444	416	371	346	336	204
35°	348	305	251	219	206	217
45°	240	196	139	96	78	184
55°	126	94	47	37	36	113
65°	25	22	17	16	17	30
75°	4	4	5	6	6	4
85°	1	1	1	1	2	1
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	563.1	563.1	563.1	563.1	563.1
2.5°	562.3	563.1	557.9	563.1	564.0
5°	559.6	558.8	550.1	552.7	550.9
7.5°	554.4	551.8	537.9	534.4	534.4
10°	546.6	541.3	520.4	514.3	511.7
12.5°	536.1	529.1	502.1	490.8	486.4
15°	523.9	510.8	480.3	464.6	458.5
17.5°	506.5	489.0	455.9	437.6	428.0
20°	488.2	466.4	429.8	408.0	398.4
22.5°	469.0	442.8	401.0	377.5	367.0
25°	443.7	415.8	371.4	346.1	335.6
27.5°	419.3	389.7	342.6	313.8	303.4
30°	395.8	360.9	311.2	283.3	270.2
32.5°	372.2	333.0	281.6	251.1	238.9
35°	347.8	305.1	251.1	218.8	205.7
37.5°	321.7	278.1	222.3	187.4	171.7
40°	294.6	249.3	193.5	154.3	139.5
42.5°	267.6	223.2	164.8	124.7	107.2
45°	239.7	196.1	138.6	95.9	77.6
47.5°	211.8	169.1	113.3	69.7	58.4
50°	184.8	143.8	88.0	51.4	47.9
52.5°	155.2	119.4	66.3	42.7	41.8
55°	125.5	94.1	47.1	36.6	35.7
57.5°	99.4	73.2	34.0	30.5	29.6
60°	71.5	52.3	26.2	25.3	24.4
62.5°	47.1	35.7	20.9	20.0	20.0
65°	25.3	21.8	16.6	15.7	16.6
67.5°	10.5	12.2	12.2	13.1	13.1
70°	7.0	7.8	9.6	10.5	10.5
72.5°	5.2	6.1	7.0	7.8	7.8
75°	4.4	4.4	5.2	6.1	6.1
77.5°	2.6	3.5	3.5	4.4	5.2
80°	1.7	2.6	2.6	3.5	3.5
82.5°	0.9	1.7	1.7	2.6	2.6
85°	0.9	0.9	0.9	0.9	1.7
87.5°	0.0	0.0	0.0	0.0	0.9
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	12.89	14.15	13.26	14.47	14.78	6.40	7.66	6.76	7.97	8.29
	3H	12.85	13.96	13.23	14.29	14.65	7.18	8.29	7.56	8.62	8.98
	4H	12.80	13.82	13.20	14.18	14.56	7.38	8.41	7.78	8.76	9.14
	6H	12.72	13.67	13.14	14.04	14.43	7.52	8.47	7.94	8.84	9.23
	8H	12.68	13.57	13.11	13.96	14.37	7.56	8.45	7.99	8.84	9.25
	12H	12.64	13.49	13.07	13.87	14.30	7.57	8.42	8.01	8.81	9.24
4H	2H	12.74	13.77	13.14	14.12	14.51	6.66	7.69	7.06	8.04	8.42
	3H	12.73	13.56	13.14	13.97	14.37	7.57	8.40	7.98	8.81	9.21
	4H	12.68	13.42	13.11	13.84	14.28	7.84	8.58	8.28	9.00	9.45
	6H	12.62	13.26	13.08	13.70	14.17	8.06	8.69	8.52	9.14	9.61
	8H	12.56	13.16	13.04	13.61	14.08	8.12	8.71	8.59	9.16	9.63
	12H	12.52	13.04	13.01	13.53	14.00	8.15	8.68	8.64	9.16	9.64
8H	4H	12.56	13.16	13.03	13.61	14.08	7.82	8.42	8.29	8.87	9.34
	6H	12.50	12.98	13.00	13.48	13.96	8.09	8.58	8.60	9.08	9.56
	8H	12.45	12.88	12.97	13.40	13.89	8.20	8.63	8.72	9.15	9.65
	12H	12.41	12.80	12.93	13.29	13.86	8.27	8.66	8.79	9.15	9.73
12H	4H	12.52	13.04	13.00	13.52	14.00	7.79	8.31	8.27	8.79	9.27
	6H	12.44	12.88	12.97	13.39	13.89	8.05	8.49	8.58	9.01	9.50
	8H	12.41	12.80	12.93	13.29	13.86	8.19	8.58	8.71	9.07	9.65