

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: P1059799

Luminaire Tested: S123RDR-H775D940-X4F0-XX-UDD-SVL-B

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1059799
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-H775D940-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: 4000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

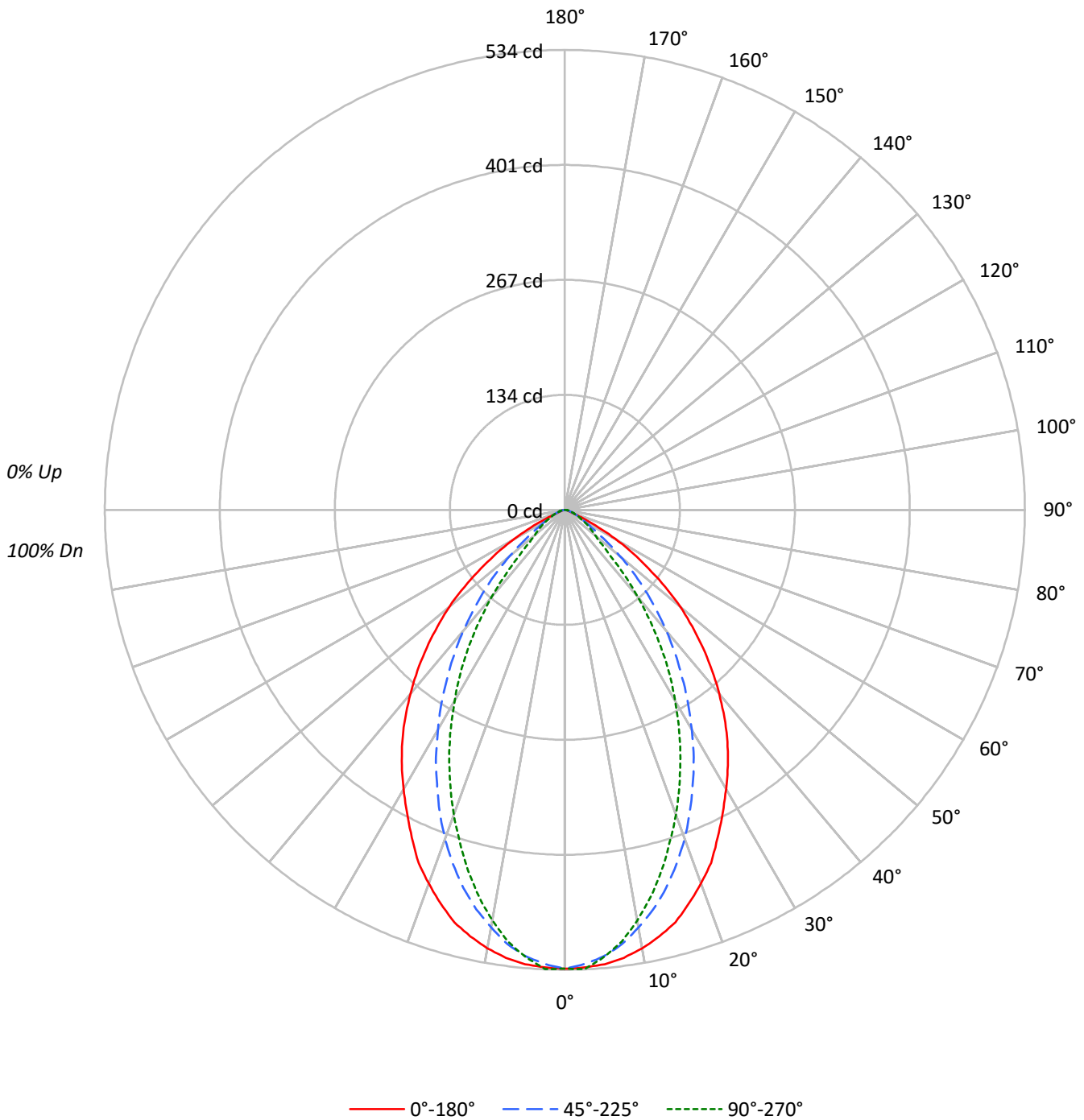
Lumens per Lamp: N/A
Luminaire Lumens: 687.8 lumens
Efficiency: N/A
Efficacy: 29.3 lumens/watt
Spacing Criteria (0/90/45): 1.08 / 0.85 / 0.98
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')
CIE Type: Direct

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				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	71	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	49	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°	6256	6256	6256
5°	6241	6134	6144
10°	6166	5871	5772
15°	6026	5524	5274
20°	5771	5081	4710
25°	5439	4552	4114
30°	5076	3992	3467
35°	4718	3405	2790
40°	4274	2807	2023
45°	3766	2177	1219
50°	3193	1522	829
55°	2432	911	692
60°	1588	580	543
65°	664	436	436
70°	227	312	340
75°	186	222	263
80°	108	169	223
85°	108	108	216

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 3766 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	49.2	7.2
10°-20°	128.8	18.7
20°-30°	165.1	24.0
30°-40°	155.0	22.5
40°-50°	108.1	15.7
50°-60°	55.9	8.1
60°-70°	19.1	2.8
70°-80°	5.5	0.8
80°-90°	1.1	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°	343.1	49.9
0°-40°	498.1	72.4
0°-60°	662.1	96.3
0°-90°	687.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	687.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	533	533	533	533	533	
5°	530	529	520	523	521	50
15°	496	483	454	440	434	139
25°	420	393	351	327	318	193
35°	329	289	238	207	195	205
45°	227	186	131	91	73	175
55°	119	89	44	35	34	107
65°	24	21	16	15	16	28
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°	532.8	532.8	532.8	532.8	532.8
2.5°	531.9	532.8	527.8	532.8	533.6
5°	529.5	528.6	520.4	522.9	521.2
7.5°	524.5	522.0	508.8	505.6	505.6
10°	517.1	512.1	492.4	486.6	484.1
12.5°	507.2	500.6	475.0	464.3	460.2
15°	495.7	483.3	454.4	439.6	433.8
17.5°	479.2	462.7	431.3	414.0	404.9
20°	461.8	441.2	406.6	386.0	376.9
22.5°	443.7	419.0	379.4	357.1	347.2
25°	419.8	393.4	351.3	327.4	317.5
27.5°	396.7	368.6	324.1	296.9	287.0
30°	374.4	341.4	294.4	268.0	255.7
32.5°	352.2	315.0	266.4	237.5	226.0
35°	329.1	288.7	237.5	207.0	194.6
37.5°	304.3	263.1	210.3	177.3	162.5
40°	278.8	235.9	183.1	146.0	132.0
42.5°	253.2	211.1	155.9	117.9	101.4
45°	226.8	185.6	131.1	90.7	73.4
47.5°	200.4	160.0	107.2	66.0	55.3
50°	174.8	136.1	83.3	48.7	45.4
52.5°	146.8	113.0	62.7	40.4	39.6
55°	118.8	89.1	44.5	34.6	33.8
57.5°	94.0	69.3	32.2	28.9	28.0
60°	67.6	49.5	24.7	23.9	23.1
62.5°	44.5	33.8	19.8	19.0	19.0
65°	23.9	20.6	15.7	14.8	15.7
67.5°	9.9	11.5	11.5	12.4	12.4
70°	6.6	7.4	9.1	9.9	9.9
72.5°	4.9	5.8	6.6	7.4	7.4
75°	4.1	4.1	4.9	5.8	5.8
77.5°	2.5	3.3	3.3	4.1	4.9
80°	1.6	2.5	2.5	3.3	3.3
82.5°	0.8	1.6	1.6	2.5	2.5
85°	0.8	0.8	0.8	0.8	1.6
87.5°	0.0	0.0	0.0	0.0	0.8
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	12.70	13.96	13.07	14.28	14.59	6.21	7.47	6.58	7.79	8.10
	3H	12.66	13.77	13.04	14.10	14.46	6.99	8.10	7.37	8.43	8.79
	4H	12.60	13.63	13.01	13.99	14.37	7.19	8.22	7.60	8.57	8.96
	6H	12.53	13.48	12.95	13.85	14.24	7.33	8.28	7.75	8.65	9.04
	8H	12.49	13.38	12.92	13.77	14.18	7.37	8.26	7.80	8.65	9.06
	12H	12.45	13.30	12.88	13.68	14.11	7.39	8.24	7.82	8.62	9.05
4H	2H	12.55	13.58	12.95	13.93	14.32	6.47	7.50	6.87	7.85	8.24
	3H	12.54	13.37	12.95	13.78	14.18	7.38	8.21	7.79	8.62	9.02
	4H	12.48	13.23	12.92	13.65	14.09	7.65	8.40	8.09	8.82	9.26
	6H	12.43	13.06	12.89	13.51	13.98	7.87	8.50	8.33	8.95	9.42
	8H	12.37	12.97	12.85	13.42	13.89	7.93	8.52	8.40	8.97	9.44
	12H	12.33	12.85	12.82	13.34	13.81	7.97	8.49	8.45	8.97	9.45
8H	4H	12.37	12.97	12.84	13.41	13.89	7.64	8.23	8.11	8.68	9.15
	6H	12.31	12.79	12.81	13.29	13.77	7.90	8.39	8.41	8.88	9.37
	8H	12.26	12.69	12.78	13.21	13.70	8.01	8.45	8.54	8.96	9.46
	12H	12.22	12.60	12.73	13.10	13.67	8.08	8.47	8.60	8.96	9.54
12H	4H	12.32	12.85	12.81	13.33	13.81	7.60	8.12	8.09	8.61	9.08
	6H	12.25	12.69	12.78	13.20	13.70	7.86	8.30	8.39	8.81	9.31
	8H	12.22	12.60	12.74	13.10	13.67	8.00	8.39	8.52	8.88	9.46