

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: P1059746

Luminaire Tested: S123RDR-H775D835-X4F0-XX-UDD-SVL-S

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1059746
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-68)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S123RDR-H775D835-X4F0-XX-UDD-SVL-S
Description: DEFINE 3 SILVER REGRESSED DIRECT RECESSED HOUSING WITH SILVER STRAIGHT BLADE
LOUVER WITH DIFFUSER
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 3500K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

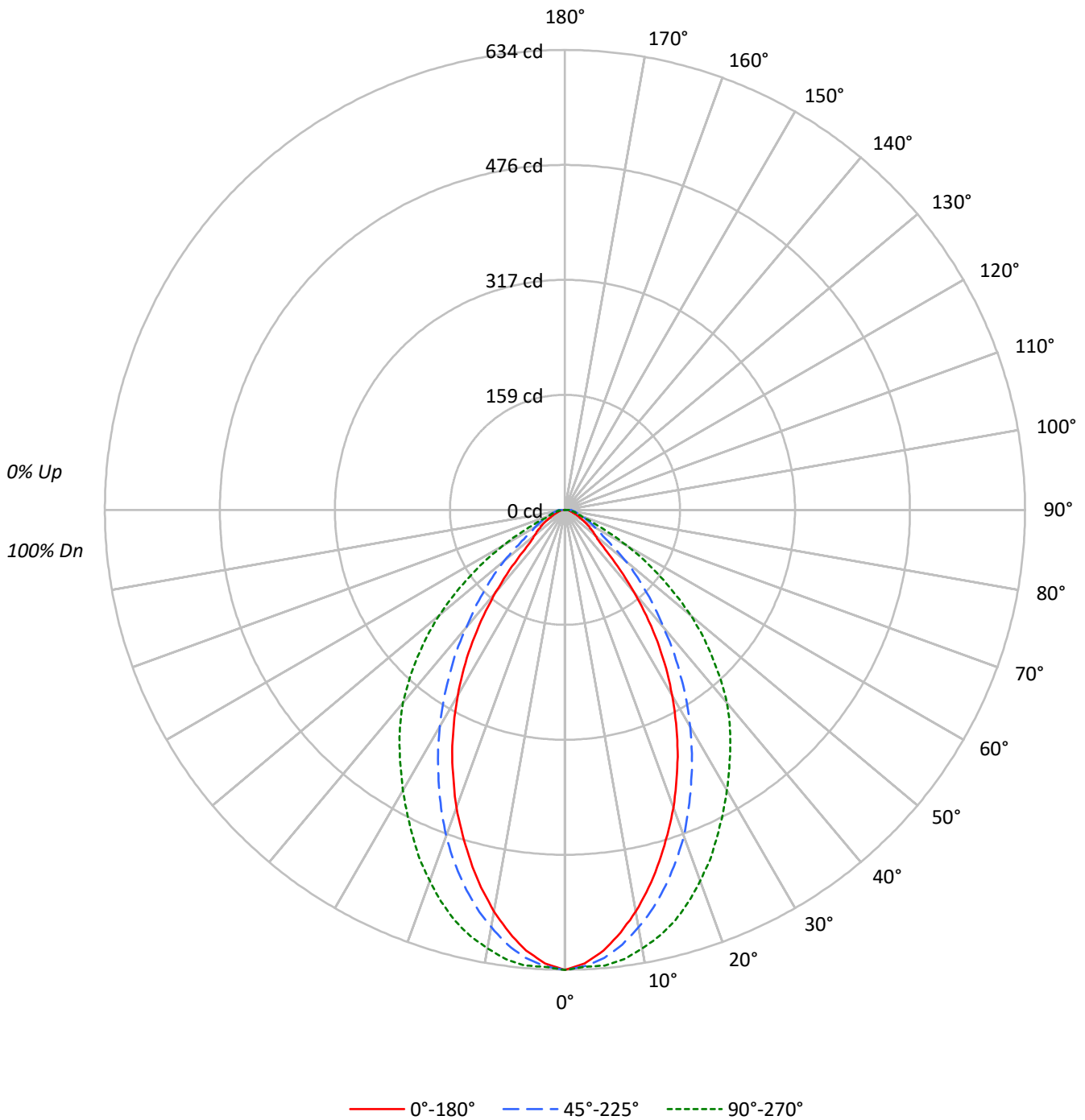
Lumens per Lamp: N/A
Luminaire Lumens: 849.3 lumens
Efficiency: N/A
Efficacy: 36.1 lumens/watt
Spacing Criteria (0/90/45): 0.83 / 1.07 / 0.98
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')
CIE Type: Direct

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	111	108	105	102	109	106	103	100	101	99	97	98	96	94	94	93	91	89				89
2	104	98	92	88	102	96	91	87	92	88	85	89	86	83	86	84	81	79				79
3	97	89	82	77	95	87	81	77	84	79	75	82	78	74	79	76	73	71				71
4	91	81	74	69	88	80	73	68	77	72	67	75	70	66	73	69	66	64				64
5	85	74	67	61	83	73	66	61	71	65	61	69	64	60	68	63	59	58				58
6	79	68	61	56	78	67	60	55	66	60	55	64	59	54	63	58	54	52				52
7	74	63	56	51	73	62	55	50	61	55	50	60	54	50	58	53	49	48				48
8	70	58	51	46	69	58	51	46	57	50	46	56	50	46	54	49	45	44				44
9	66	54	47	43	65	54	47	43	53	47	42	52	46	42	51	46	42	40				40
10	62	51	44	39	61	50	44	39	50	43	39	49	43	39	48	43	39	37				37

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	7447	7447	7447
5°	7191	7312	7432
10°	6701	6966	7319
15°	6100	6517	7125
20°	5461	5982	6803
25°	4763	5338	6430
30°	4004	4682	6051
35°	3185	3968	5694
40°	2270	3236	5322
45°	1353	2599	4766
50°	997	1978	4127
55°	833	1345	3280
60°	674	1108	2304
65°	539	953	1234
70°	446	827	762
75°	422	798	712
80°	440	879	690
85°	620	1253	876

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 4766 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	58.3	6.9
10°-20°	151.3	17.8
20°-30°	193.0	22.7
30°-40°	181.6	21.4
40°-50°	130.5	15.4
50°-60°	74.8	8.8
60°-70°	34.2	4.0
70°-80°	17.2	2.0
80°-90°	8.4	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°	402.6	47.4
0°-40°	584.3	68.8
0°-60°	789.6	93.0
0°-90°	849.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	849.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	634	634	634	634	634	
5°	610	622	620	625	630	57
15°	502	519	536	565	586	140
25°	368	384	412	456	496	168
35°	222	238	277	340	397	138
45°	82	99	156	230	287	68
55°	41	42	66	121	160	37
65°	19	27	34	38	44	20
75°	9	18	18	16	16	10
85°	5	9	9	8	6	5
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	634.2	634.2	634.2	634.2	634.2
2.5°	625.9	635.1	629.6	629.6	630.5
5°	610.1	622.2	620.3	624.9	630.5
7.5°	587.9	600.9	604.6	615.7	624.9
10°	562.0	576.8	584.2	601.8	613.8
12.5°	533.3	550.0	562.0	584.2	601.8
15°	501.8	519.4	536.1	564.8	586.1
17.5°	469.4	487.0	508.3	541.6	566.6
20°	437.0	454.6	478.7	513.8	544.4
22.5°	401.8	419.4	445.3	485.1	522.2
25°	367.6	384.2	412.0	456.4	496.3
27.5°	331.5	348.1	378.7	426.8	471.3
30°	295.3	312.0	345.3	397.2	446.3
32.5°	259.2	275.0	311.1	368.5	421.3
35°	222.2	237.9	276.8	339.8	397.2
37.5°	184.2	200.0	245.4	313.9	373.1
40°	148.1	165.7	211.1	287.9	347.2
42.5°	113.0	131.5	183.3	260.2	317.6
45°	81.5	99.1	156.5	230.5	287.0
47.5°	62.0	71.3	132.4	200.9	257.4
50°	54.6	55.6	108.3	174.1	225.9
52.5°	47.2	48.1	84.3	148.1	192.6
55°	40.7	41.7	65.7	121.3	160.2
57.5°	34.3	36.1	53.7	96.3	128.7
60°	28.7	32.4	47.2	73.1	98.1
62.5°	23.1	29.6	40.7	53.7	70.4
65°	19.4	26.8	34.3	38.0	44.4
67.5°	15.7	25.0	28.7	26.8	26.8
70°	13.0	22.2	24.1	22.2	22.2
72.5°	11.1	21.3	20.4	18.5	18.5
75°	9.3	18.5	17.6	15.7	15.7
77.5°	8.3	15.7	14.8	13.9	13.0
80°	6.5	13.0	13.0	12.0	10.2
82.5°	5.6	11.1	11.1	10.2	8.3
85°	4.6	9.3	9.3	8.3	6.5
87.5°	3.7	8.3	8.3	7.4	4.6
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	6.96	8.28	7.33	8.59	8.91	14.18	15.50	14.55	15.81	16.13
	3H	8.36	9.53	8.74	9.86	10.22	14.42	15.59	14.80	15.92	16.28
	4H	8.92	10.01	9.32	10.36	10.75	14.53	15.61	14.93	15.97	16.35
	6H	9.38	10.38	9.80	10.75	11.15	14.63	15.63	15.05	16.00	16.40
	8H	9.57	10.52	10.00	10.91	11.31	14.68	15.63	15.11	16.02	16.43
	12H	9.76	10.67	10.19	11.05	11.48	14.73	15.64	15.16	16.02	16.45
4H	2H	8.04	9.13	8.44	9.48	9.86	14.15	15.24	14.55	15.59	15.97
	3H	9.72	10.62	10.14	11.02	11.42	14.51	15.41	14.93	15.81	16.21
	4H	10.56	11.36	10.99	11.78	12.22	14.70	15.49	15.13	15.91	16.36
	6H	11.22	11.91	11.68	12.35	12.82	14.92	15.61	15.38	16.06	16.52
	8H	11.47	12.12	11.94	12.57	13.04	15.02	15.66	15.49	16.11	16.58
	12H	11.73	12.30	12.21	12.78	13.26	15.14	15.71	15.62	16.19	16.66
8H	4H	10.99	11.64	11.46	12.09	12.56	14.74	15.39	15.21	15.83	16.30
	6H	11.95	12.48	12.45	12.97	13.45	15.07	15.60	15.58	16.10	16.58
	8H	12.41	12.89	12.93	13.40	13.90	15.26	15.74	15.78	16.25	16.75
	12H	12.89	13.31	13.41	13.81	14.38	15.50	15.92	16.01	16.41	16.98
12H	4H	11.05	11.62	11.54	12.11	12.58	14.73	15.30	15.22	15.79	16.26
	6H	12.09	12.57	12.61	13.09	13.58	15.10	15.58	15.62	16.09	16.58
	8H	12.69	13.11	13.20	13.60	14.17	15.36	15.78	15.87	16.28	16.85