

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: P1059755

Luminaire Tested: S123RDR-H775D840-X4F0-XX-UDD-SVL-S

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1059755
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-H775D840-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: 4000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

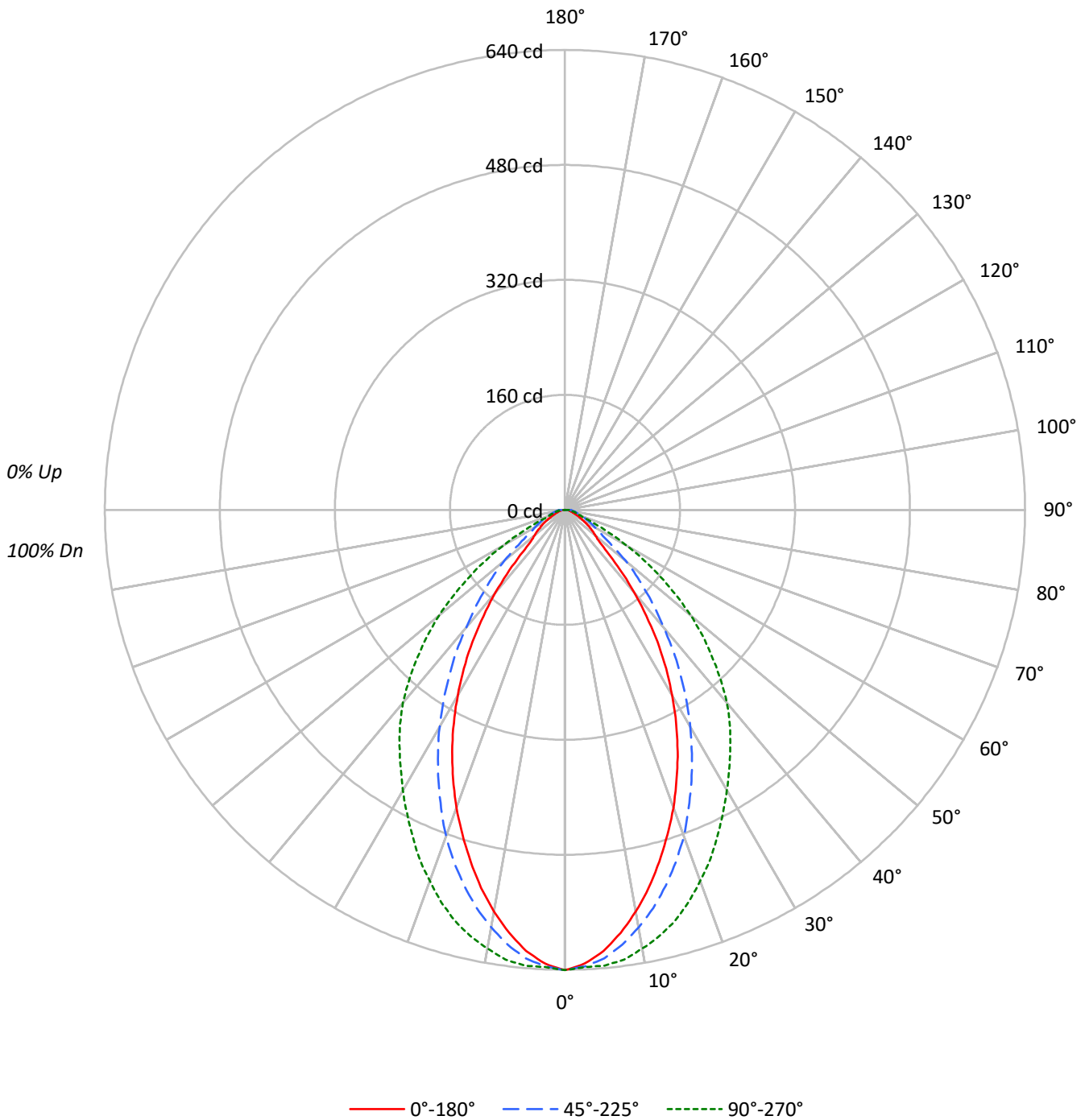
Lumens per Lamp: N/A
Luminaire Lumens: 857.7 lumens
Efficiency: N/A
Efficacy: 36.5 lumens/watt
Spacing Criteria (0/90/45): 0.83 / 1.07 / 0.98
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')
CIE Type: Direct

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°	7521	7521	7521
5°	7263	7384	7505
10°	6767	7035	7391
15°	6161	6582	7194
20°	5515	6041	6870
25°	4809	5391	6494
30°	4045	4728	6111
35°	3217	4008	5750
40°	2293	3268	5374
45°	1367	2624	4813
50°	1008	1999	4167
55°	841	1359	3312
60°	681	1120	2327
65°	545	961	1248
70°	450	834	769
75°	422	808	721
80°	440	886	697
85°	633	1253	876

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 4813 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	58.8	6.9
10°-20°	152.8	17.8
20°-30°	194.9	22.7
30°-40°	183.4	21.4
40°-50°	131.8	15.4
50°-60°	75.6	8.8
60°-70°	34.5	4.0
70°-80°	17.4	2.0
80°-90°	8.5	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°	406.6	47.4
0°-40°	590.0	68.8
0°-60°	797.4	93.0
0°-90°	857.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	857.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	640	640	640	640	640	
5°	616	628	626	631	637	57
15°	507	524	541	570	592	142
25°	371	388	416	461	501	170
35°	224	240	280	343	401	139
45°	82	100	158	233	290	69
55°	41	42	66	122	162	37
65°	20	27	35	38	45	20
75°	9	19	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°	640.5	640.5	640.5	640.5	640.5
2.5°	632.1	641.4	635.8	635.8	636.7
5°	616.2	628.3	626.4	631.1	636.7
7.5°	593.7	606.8	610.5	621.8	631.1
10°	567.5	582.5	590.0	607.7	619.9
12.5°	538.6	555.4	567.5	590.0	607.7
15°	506.8	524.5	541.4	570.3	591.8
17.5°	474.0	491.8	513.3	547.0	572.2
20°	441.3	459.1	483.4	518.9	549.8
22.5°	405.8	423.5	449.7	489.9	527.3
25°	371.2	388.0	416.1	460.9	501.2
27.5°	334.7	351.6	382.4	431.0	475.9
30°	298.3	315.1	348.7	401.1	450.7
32.5°	261.8	277.7	314.2	372.1	425.4
35°	224.4	240.3	279.6	343.1	401.1
37.5°	186.1	202.0	247.8	317.0	376.8
40°	149.6	167.4	213.2	290.8	350.6
42.5°	114.1	132.8	185.1	262.7	320.7
45°	82.3	100.0	158.0	232.8	289.8
47.5°	62.6	72.0	133.7	202.9	259.9
50°	55.2	56.1	109.4	175.8	228.1
52.5°	47.7	48.6	85.1	149.6	194.5
55°	41.1	42.1	66.4	122.5	161.8
57.5°	34.6	36.5	54.2	97.2	130.0
60°	29.0	32.7	47.7	73.9	99.1
62.5°	23.4	29.9	41.1	54.2	71.1
65°	19.6	27.1	34.6	38.3	44.9
67.5°	15.9	25.2	29.0	27.1	27.1
70°	13.1	22.4	24.3	22.4	22.4
72.5°	11.2	21.5	20.6	18.7	18.7
75°	9.3	18.7	17.8	15.9	15.9
77.5°	8.4	15.9	15.0	14.0	13.1
80°	6.5	13.1	13.1	12.2	10.3
82.5°	5.6	11.2	11.2	10.3	8.4
85°	4.7	9.3	9.3	8.4	6.5
87.5°	3.7	8.4	8.4	7.5	4.7
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	7.00	8.32	7.37	8.63	8.95	14.22	15.53	14.58	15.85	16.16
	3H	8.40	9.56	8.78	9.89	10.26	14.45	15.62	14.83	15.95	16.32
	4H	8.95	10.04	9.36	10.39	10.78	14.56	15.65	14.96	16.00	16.38
	6H	9.41	10.41	9.83	10.78	11.18	14.67	15.67	15.08	16.04	16.43
	8H	9.60	10.55	10.03	10.94	11.34	14.71	15.66	15.14	16.05	16.46
	12H	9.79	10.70	10.22	11.08	11.51	14.76	15.67	15.20	16.05	16.49
4H	2H	8.07	9.16	8.47	9.51	9.90	14.18	15.27	14.58	15.62	16.00
	3H	9.76	10.65	10.17	11.05	11.46	14.55	15.44	14.96	15.84	16.25
	4H	10.59	11.39	11.02	11.81	12.25	14.73	15.53	15.16	15.95	16.39
	6H	11.25	11.94	11.71	12.38	12.85	14.95	15.64	15.42	16.09	16.56
	8H	11.50	12.15	11.97	12.59	13.07	15.05	15.70	15.52	16.15	16.62
	12H	11.76	12.33	12.24	12.81	13.29	15.17	15.74	15.65	16.22	16.70
8H	4H	11.03	11.67	11.50	12.12	12.59	14.77	15.42	15.24	15.87	16.34
	6H	11.98	12.51	12.48	13.00	13.49	15.11	15.64	15.61	16.13	16.62
	8H	12.44	12.92	12.96	13.43	13.92	15.30	15.78	15.82	16.29	16.78
	12H	12.92	13.34	13.43	13.84	14.41	15.53	15.95	16.04	16.45	17.02
12H	4H	11.09	11.66	11.57	12.14	12.62	14.77	15.34	15.25	15.82	16.30
	6H	12.13	12.60	12.65	13.12	13.61	15.13	15.61	15.66	16.13	16.62
	8H	12.72	13.14	13.23	13.63	14.20	15.39	15.82	15.91	16.31	16.88