

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: P1062184

Luminaire Tested: S125RDR-H850D840-X4F0-XX-UDD-SVL-B

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1062184
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2406-143-47)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S125RDR-H850D840-X4F0-XX-UDD-SVL-B
Description: DEFINE 5 BLACK 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

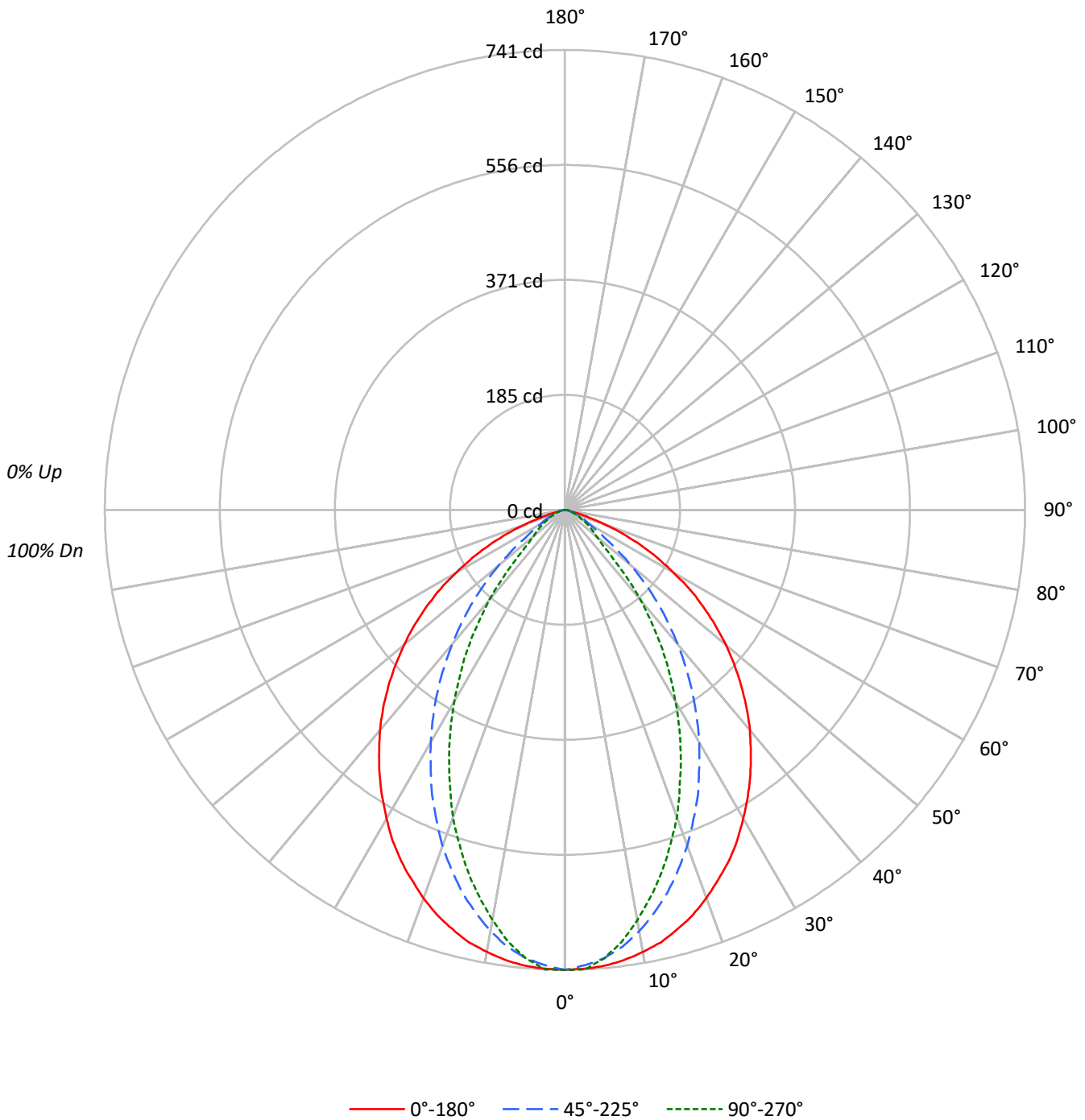
Lumens per Lamp: N/A
Luminaire Lumens: 1071.7 lumens
Efficiency: N/A
Efficacy: 45.6 lumens/watt
Spacing Criteria (0/90/45): 1.16 / 0.85 / 1.01
Luminous Opening: Rectangular (W 0.39' x L: 4' x H: 0')
CIE Type: Direct

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	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	112	108	105	102	109	106	103	101	102	100	97	98	96	95	95	93	92	90
2	104	98	93	88	102	96	91	87	93	89	85	90	86	83	87	84	82	80
3	97	89	82	77	95	87	81	77	84	79	75	82	78	74	79	76	73	71
4	90	81	74	68	88	79	73	68	77	71	67	75	70	66	73	69	65	63
5	84	74	66	61	82	73	66	61	71	65	60	69	64	59	67	63	59	57
6	79	68	60	55	77	67	60	55	65	59	54	64	58	54	62	57	53	52
7	74	62	55	50	72	62	55	50	60	54	49	59	53	49	58	53	49	47
8	69	58	50	45	68	57	50	45	56	50	45	55	49	45	54	48	45	43
9	65	54	47	42	64	53	46	42	52	46	41	51	45	41	50	45	41	39
10	62	50	43	38	61	50	43	38	49	43	38	48	42	38	47	42	38	36

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	5103	5103	5103
5°	5096	5012	5012
10°	5056	4819	4694
15°	4987	4551	4303
20°	4878	4223	3864
25°	4743	3849	3355
30°	4567	3436	2830
35°	4377	3007	2295
40°	4164	2539	1701
45°	3915	2035	1027
50°	3622	1493	706
55°	3266	916	588
60°	2775	622	467
65°	2195	476	368
70°	1383	340	304
75°	450	250	250
80°	151	186	222
85°	71	150	150

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 3915 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	68.5	6.4
10°-20°	181.0	16.9
20°-30°	238.1	22.2
30°-40°	233.9	21.8
40°-50°	177.0	16.5
50°-60°	107.3	10.0
60°-70°	50.6	4.7
70°-80°	13.2	1.2
80°-90°	2.0	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°	487.6	45.5
0°-40°	721.6	67.3
0°-60°	1005.9	93.9
0°-90°	1071.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1071.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	741	741	741	741	741	
5°	737	735	725	726	725	70
15°	700	681	638	614	604	197
25°	624	577	507	460	442	287
35°	521	451	358	295	273	325
45°	402	316	209	133	106	310
55°	272	186	76	52	49	242
65°	135	69	29	24	23	133
75°	17	11	9	9	9	26
85°	1	1	2	2	2	1
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	741.1	741.1	741.1	741.1	741.1
2.5°	740.1	740.1	734.5	741.1	741.1
5°	737.3	735.4	725.1	726.0	725.1
7.5°	731.7	727.9	710.0	705.3	701.5
10°	723.2	715.7	689.3	678.0	671.4
12.5°	713.8	700.6	664.8	648.8	638.4
15°	699.6	680.8	638.4	614.0	603.6
17.5°	684.6	657.3	607.4	578.2	565.0
20°	665.7	633.7	576.3	540.5	527.3
22.5°	645.0	607.4	540.5	501.0	483.1
25°	624.3	577.2	506.6	459.5	441.6
27.5°	600.8	547.1	468.0	419.0	399.3
30°	574.4	517.0	432.2	381.4	355.9
32.5°	548.0	485.9	394.6	339.0	313.6
35°	520.7	451.0	357.8	294.7	273.1
37.5°	491.5	418.1	320.2	254.2	228.8
40°	463.3	385.1	282.5	212.8	189.3
42.5°	433.2	352.2	244.8	172.3	146.0
45°	402.1	316.4	209.0	132.8	105.5
47.5°	370.1	284.4	173.3	97.9	79.1
50°	338.1	250.5	139.4	72.5	65.9
52.5°	305.1	217.5	105.5	60.3	57.4
55°	272.1	186.4	76.3	51.8	49.0
57.5°	238.2	152.5	57.4	44.3	41.4
60°	201.5	122.4	45.2	36.7	33.9
62.5°	167.6	96.0	36.7	30.1	28.2
65°	134.7	68.7	29.2	24.5	22.6
67.5°	100.8	46.1	22.6	18.8	18.8
70°	68.7	30.1	16.9	15.1	15.1
72.5°	41.4	17.9	12.2	12.2	12.2
75°	16.9	11.3	9.4	9.4	9.4
77.5°	5.6	6.6	6.6	7.5	7.5
80°	3.8	3.8	4.7	5.6	5.6
82.5°	1.9	2.8	2.8	3.8	3.8
85°	0.9	0.9	1.9	1.9	1.9
87.5°	0.0	0.0	0.0	0.9	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	14.99	16.32	15.35	16.63	16.95	5.65	6.98	6.02	7.30	7.61
	3H	15.70	16.87	16.08	17.20	17.57	6.43	7.61	6.81	7.94	8.30
	4H	15.71	16.81	16.11	17.16	17.54	6.68	7.77	7.08	8.12	8.51
	6H	15.64	16.65	16.06	17.02	17.41	6.85	7.86	7.27	8.23	8.62
	8H	15.60	16.55	16.03	16.94	17.35	6.90	7.85	7.33	8.24	8.65
	12H	15.56	16.47	15.99	16.85	17.28	6.91	7.82	7.34	8.20	8.63
4H	2H	14.82	15.92	15.22	16.27	16.65	6.14	7.23	6.54	7.58	7.97
	3H	15.57	16.46	15.98	16.86	17.27	7.04	7.94	7.46	8.34	8.74
	4H	15.58	16.38	16.02	16.80	17.24	7.35	8.15	7.79	8.57	9.01
	6H	15.52	16.21	15.99	16.65	17.12	7.61	8.29	8.07	8.74	9.21
	8H	15.47	16.11	15.94	16.56	17.03	7.68	8.31	8.15	8.76	9.23
	12H	15.43	15.99	15.91	16.47	16.95	7.70	8.27	8.19	8.75	9.22
8H	4H	15.47	16.11	15.94	16.55	17.02	7.47	8.10	7.94	8.55	9.02
	6H	15.39	15.91	15.89	16.41	16.89	7.78	8.30	8.28	8.80	9.28
	8H	15.34	15.80	15.86	16.32	16.81	7.89	8.35	8.41	8.87	9.36
	12H	15.30	15.71	15.81	16.20	16.78	7.95	8.36	8.47	8.86	9.43
12H	4H	15.42	15.99	15.91	16.47	16.94	7.44	8.00	7.92	8.48	8.96
	6H	15.33	15.80	15.86	16.32	16.81	7.75	8.22	8.27	8.73	9.23
	8H	15.30	15.71	15.81	16.21	16.78	7.89	8.30	8.41	8.80	9.37