

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: P1062190

Luminaire Tested: S125RDR-H850D850-X4F0-XX-UDD-BVL-B

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1062190
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2406-143-48)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S125RDR-H850D850-X4F0-XX-UDD-BVL-B
Description: DEFINE 5 BLACK REGRESSED DIRECT RECESSED HOUSING WITH BLACK STRAIGHT BLADE
LOUVER WITH DIFFUSER
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 5000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

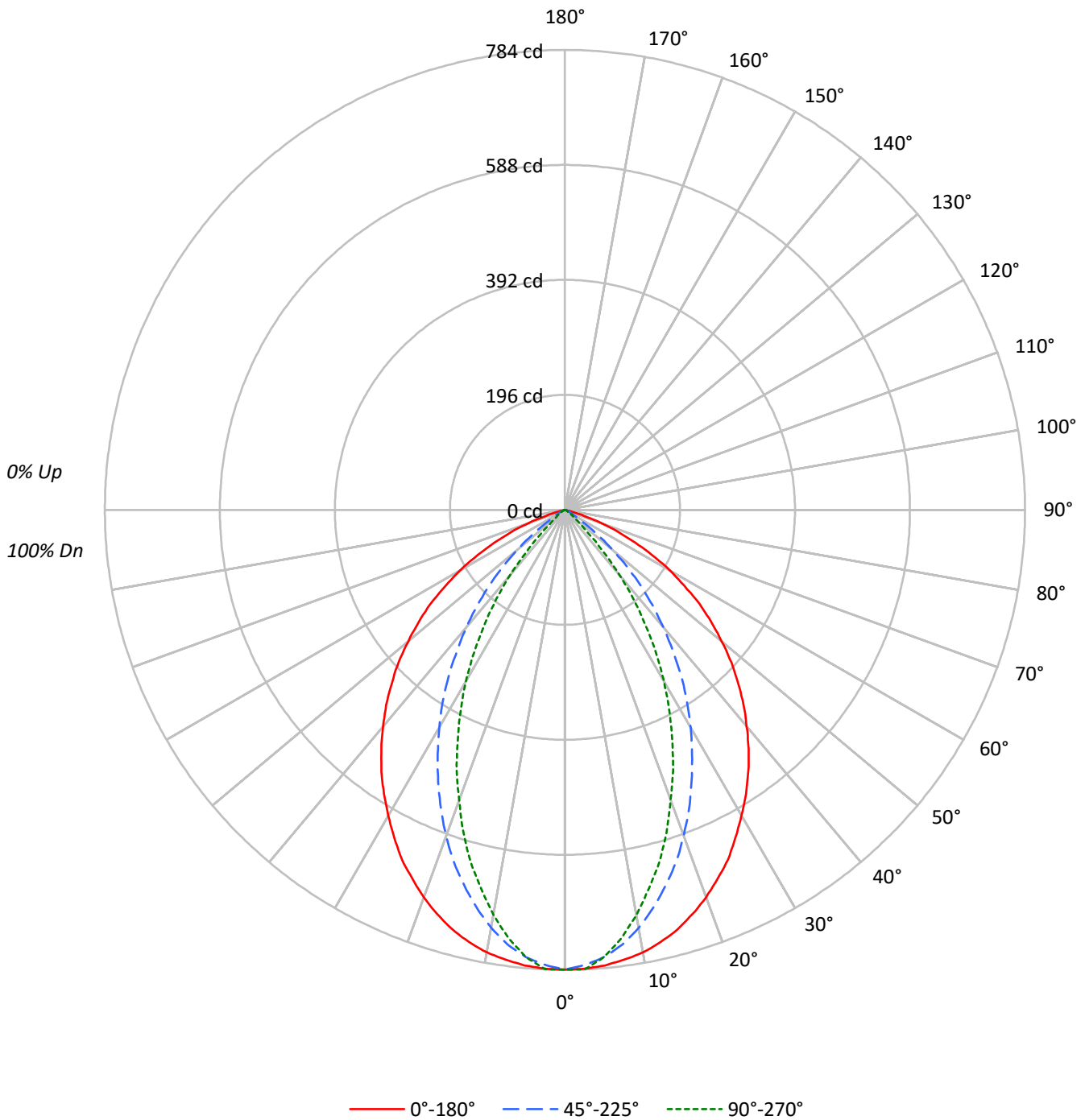
Lumens per Lamp: N/A
Luminaire Lumens: 1012.6 lumens
Efficiency: N/A
Efficacy: 43.1 lumens/watt
Spacing Criteria (0/90/45): 1.15 / 0.81 / 0.97
Luminous Opening: Rectangular (W 0.39' x L: 4' x H: 0')
CIE Type: Direct

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	109	106	103	110	107	104	102	103	101	99	99	97	96	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	72	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	57	67	61	57	66	61	57	65	60	56	54
7	76	65	58	53	74	64	57	52	63	56	52	61	56	52	60	55	51	50
8	71	60	53	48	70	59	53	48	58	52	48	57	52	48	56	51	47	46
9	67	56	49	44	66	55	49	44	54	48	44	53	48	44	52	47	44	42
10	64	52	46	41	62	52	45	41	51	45	41	50	45	41	49	44	41	39

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	5397	5397	5397
5°	5388	5289	5289
10°	5357	5060	4902
15°	5278	4725	4429
20°	5152	4334	3856
25°	4996	3881	3283
30°	4785	3404	2680
35°	4580	2903	2008
40°	4331	2342	1301
45°	4057	1772	564
50°	3733	1130	210
55°	3364	497	149
60°	2848	213	99
65°	2157	135	51
70°	1311	62	20
75°	274	27	27
80°	0	0	0
85°	0	0	0

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 4057 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	72.2	7.1
10°-20°	188.3	18.6
20°-30°	241.8	23.9
30°-40°	227.6	22.5
40°-50°	159.2	15.7
50°-60°	85.0	8.4
60°-70°	33.9	3.3
70°-80°	4.4	0.4
80°-90°	0.0	0.0
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°	502.4	49.6
0°-40°	730.1	72.1
0°-60°	974.3	96.2
0°-90°	1012.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1012.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	784	784	784	784	784	
5°	780	778	765	767	765	74
15°	740	717	663	632	621	208
25°	658	600	511	455	432	302
35°	545	458	345	267	239	340
45°	417	312	182	88	58	321
55°	280	172	41	14	12	248
65°	132	53	8	4	3	132
75°	10	3	1	1	1	20
85°	0	0	0	0	0	0
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	783.8	783.8	783.8	783.8	783.8
2.5°	782.8	783.8	776.5	782.8	783.8
5°	779.6	777.6	765.2	767.2	765.2
7.5°	773.4	768.3	747.6	740.4	736.2
10°	766.2	754.8	723.8	708.3	701.1
12.5°	754.8	738.3	694.9	671.1	660.7
15°	740.4	716.6	662.8	631.8	621.4
17.5°	722.8	691.8	629.7	591.5	575.9
20°	703.1	661.8	591.5	546.0	526.3
22.5°	680.4	632.8	552.2	501.5	481.9
25°	657.6	599.7	510.8	455.0	432.2
27.5°	629.7	565.6	469.4	409.5	384.7
30°	601.8	531.5	428.1	362.9	337.1
32.5°	573.9	495.3	386.7	314.3	288.5
35°	544.9	458.1	345.4	266.8	238.9
37.5°	513.9	420.8	300.9	221.3	192.3
40°	481.9	384.7	260.6	176.8	144.8
42.5°	450.8	348.5	220.2	133.4	98.2
45°	416.7	312.3	182.0	87.9	57.9
47.5°	384.7	277.1	142.7	50.7	30.0
50°	348.5	240.9	105.5	26.9	19.6
52.5°	314.3	205.8	70.3	17.6	15.5
55°	280.2	171.6	41.4	14.5	12.4
57.5°	240.9	138.6	22.7	11.4	9.3
60°	206.8	108.6	15.5	8.3	7.2
62.5°	167.5	79.6	11.4	6.2	5.2
65°	132.4	52.7	8.3	4.1	3.1
67.5°	98.2	31.0	5.2	2.1	2.1
70°	65.1	16.5	3.1	1.0	1.0
72.5°	34.1	7.2	2.1	1.0	1.0
75°	10.3	3.1	1.0	1.0	1.0
77.5°	0.0	1.0	0.0	0.0	1.0
80°	0.0	0.0	0.0	0.0	0.0
82.5°	0.0	0.0	0.0	0.0	0.0
85°	0.0	0.0	0.0	0.0	0.0
87.5°	0.0	0.0	0.0	0.0	0.0
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	14.80	16.07	15.17	16.38	16.69	0.00	0.00	0.00	0.00	0.00
	3H	15.39	16.50	15.77	16.83	17.19	0.00	0.00	0.00	0.00	0.00
	4H	15.35	16.38	15.75	16.73	17.12	0.00	0.00	0.00	0.00	0.00
	6H	15.26	16.21	15.68	16.58	16.97	0.00	0.00	0.00	0.00	0.00
	8H	15.22	16.11	15.65	16.50	16.91	0.00	0.00	0.00	0.00	0.00
	12H	15.17	16.02	15.60	16.41	16.84	0.00	0.00	0.00	0.00	0.00
4H	2H	14.58	15.61	14.98	15.96	16.34	0.00	0.00	0.00	0.00	0.00
	3H	15.17	16.00	15.58	16.41	16.81	0.00	0.00	0.00	0.00	0.00
	4H	15.12	15.86	15.55	16.28	16.72	0.00	0.00	0.00	0.00	0.00
	6H	15.03	15.67	15.49	16.11	16.58	0.00	0.00	0.00	0.00	0.00
	8H	14.97	15.56	15.44	16.01	16.48	0.00	0.00	0.00	0.00	0.00
	12H	14.92	15.44	15.41	15.92	16.40	0.00	0.00	0.00	0.00	0.00
8H	4H	14.97	15.56	15.44	16.01	16.48	0.00	0.00	0.00	0.00	0.00
	6H	14.86	15.34	15.37	15.84	16.32	0.00	0.00	0.00	0.00	0.00
	8H	14.79	15.23	15.32	15.74	16.24	0.00	0.00	0.00	0.00	0.00
	12H	14.75	15.13	15.26	15.62	16.20	0.00	0.00	0.00	0.00	0.00
12H	4H	14.92	15.44	15.41	15.92	16.40	0.00	0.00	0.00	0.00	0.00
	6H	14.79	15.23	15.32	15.74	16.24	0.00	0.00	0.00	0.00	0.00
	8H	14.75	15.13	15.26	15.62	16.20	0.00	0.00	0.00	0.00	0.00