

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: P1062217

Luminaire Tested: S125RDR-H850D935-X4F0-XX-UDD-BVL-B

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1062217
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-H850D935-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: 3500K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

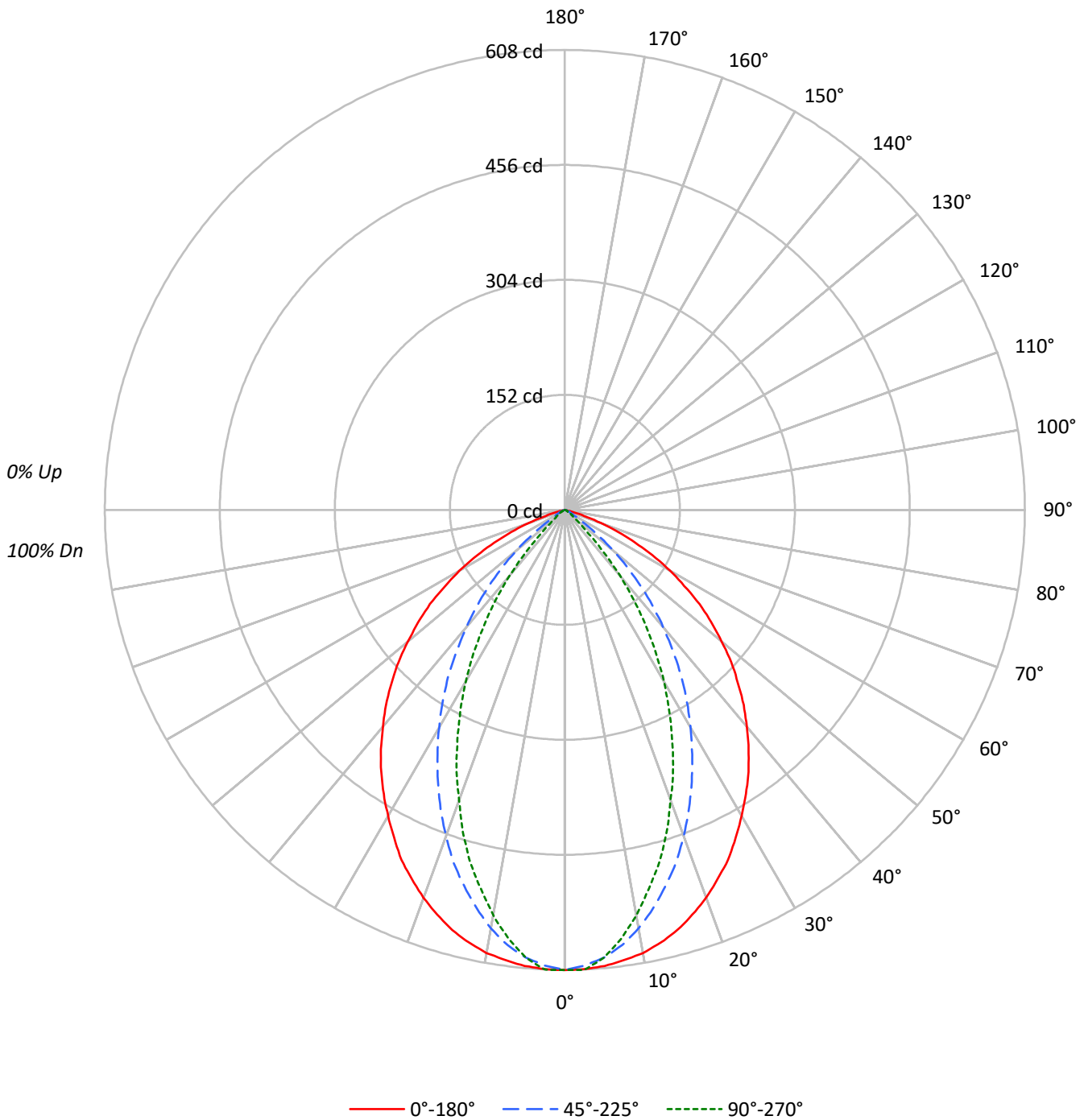
Lumens per Lamp: N/A
Luminaire Lumens: 786.1 lumens
Efficiency: N/A
Efficacy: 33.5 lumens/watt
Spacing Criteria (0/90/45): 1.15 / 0.81 / 0.97
Luminous Opening: Rectangular (W 0.39' x L: 4' x H: 0')
CIE Type: Direct

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°	4190	4190	4190
5°	4184	4106	4106
10°	4159	3928	3805
15°	4097	3668	3439
20°	4000	3365	2994
25°	3879	3013	2550
30°	3714	2643	2081
35°	3556	2253	1558
40°	3362	1818	1010
45°	3150	1376	438
50°	2897	877	164
55°	2612	385	115
60°	2212	165	77
65°	1675	104	39
70°	1019	48	16
75°	213	21	21
80°	0	0	0
85°	0	0	0

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 3150 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	56.1	7.1
10°-20°	146.2	18.6
20°-30°	187.8	23.9
30°-40°	176.7	22.5
40°-50°	123.6	15.7
50°-60°	66.0	8.4
60°-70°	26.3	3.3
70°-80°	3.4	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°	390.1	49.6
0°-40°	566.8	72.1
0°-60°	756.4	96.2
0°-90°	786.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	786.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	608	608	608	608	608	
5°	605	604	594	596	594	57
15°	575	556	515	490	482	162
25°	511	466	397	353	336	234
35°	423	356	268	207	185	264
45°	324	242	141	68	45	250
55°	218	133	32	11	10	193
65°	103	41	6	3	2	102
75°	8	2	1	1	1	16
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°	608.5	608.5	608.5	608.5	608.5
2.5°	607.7	608.5	602.9	607.7	608.5
5°	605.3	603.7	594.1	595.7	594.1
7.5°	600.5	596.5	580.4	574.8	571.6
10°	594.9	586.0	561.9	549.9	544.3
12.5°	586.0	573.2	539.5	521.0	513.0
15°	574.8	556.3	514.6	490.5	482.5
17.5°	561.1	537.1	488.9	459.2	447.2
20°	545.9	513.8	459.2	423.9	408.6
22.5°	528.2	491.3	428.7	389.3	374.1
25°	510.6	465.6	396.6	353.2	335.6
27.5°	488.9	439.1	364.5	317.9	298.6
30°	467.2	412.6	332.4	281.8	261.7
32.5°	445.5	384.5	300.2	244.0	224.0
35°	423.1	355.6	268.1	207.1	185.4
37.5°	399.0	326.7	233.6	171.8	149.3
40°	374.1	298.6	202.3	137.3	112.4
42.5°	350.0	270.5	171.0	103.6	76.3
45°	323.5	242.4	141.3	68.2	45.0
47.5°	298.6	215.1	110.8	39.3	23.3
50°	270.5	187.0	81.9	20.9	15.3
52.5°	244.0	159.8	54.6	13.6	12.0
55°	217.6	133.3	32.1	11.2	9.6
57.5°	187.0	107.6	17.7	8.8	7.2
60°	160.6	84.3	12.0	6.4	5.6
62.5°	130.1	61.8	8.8	4.8	4.0
65°	102.8	40.9	6.4	3.2	2.4
67.5°	76.3	24.1	4.0	1.6	1.6
70°	50.6	12.8	2.4	0.8	0.8
72.5°	26.5	5.6	1.6	0.8	0.8
75°	8.0	2.4	0.8	0.8	0.8
77.5°	0.0	0.8	0.0	0.0	0.8
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	13.92	15.19	14.29	15.50	15.81	0.00	0.00	0.00	0.00	0.00
	3H	14.51	15.62	14.89	15.95	16.32	0.00	0.00	0.00	0.00	0.00
	4H	14.47	15.50	14.87	15.85	16.24	0.00	0.00	0.00	0.00	0.00
	6H	14.38	15.33	14.80	15.70	16.10	0.00	0.00	0.00	0.00	0.00
	8H	14.34	15.23	14.77	15.62	16.03	0.00	0.00	0.00	0.00	0.00
	12H	14.29	15.15	14.73	15.53	15.96	0.00	0.00	0.00	0.00	0.00
4H	2H	13.70	14.73	14.10	15.08	15.46	0.00	0.00	0.00	0.00	0.00
	3H	14.29	15.12	14.70	15.53	15.93	0.00	0.00	0.00	0.00	0.00
	4H	14.24	14.98	14.67	15.40	15.84	0.00	0.00	0.00	0.00	0.00
	6H	14.15	14.79	14.61	15.23	15.70	0.00	0.00	0.00	0.00	0.00
	8H	14.09	14.68	14.56	15.13	15.60	0.00	0.00	0.00	0.00	0.00
	12H	14.04	14.56	14.53	15.04	15.52	0.00	0.00	0.00	0.00	0.00
8H	4H	14.09	14.68	14.56	15.13	15.60	0.00	0.00	0.00	0.00	0.00
	6H	13.98	14.46	14.49	14.96	15.44	0.00	0.00	0.00	0.00	0.00
	8H	13.92	14.35	14.44	14.87	15.36	0.00	0.00	0.00	0.00	0.00
	12H	13.87	14.25	14.38	14.74	15.32	0.00	0.00	0.00	0.00	0.00
12H	4H	14.04	14.56	14.53	15.04	15.52	0.00	0.00	0.00	0.00	0.00
	6H	13.92	14.35	14.44	14.87	15.36	0.00	0.00	0.00	0.00	0.00
	8H	13.87	14.25	14.38	14.74	15.32	0.00	0.00	0.00	0.00	0.00