

Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269



Scaled data based on original data using
LM-79-2024 Approved Method: Electrical and Photometric Measurements of Solid-
State Lighting Products

Test Report Prepared for
Cooper Lighting Solutions

Brand: NEO-RAY

Report Number: P1056577

Luminaire Tested: S125R3DR-H610D835-X4F0-XX-UDD-F-B

Issue Date: 7/25/2025

Test Information

Test Method: LM-79-2024
Report Number: P1056577
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2503-402-11)
Test Lab: INNOVATION CENTER
Issue Date: 7/25/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S125R3DR-H610D835-X4F0-XX-UDD-F-B
Description: DEFINE 5, BLACK 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 3500K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

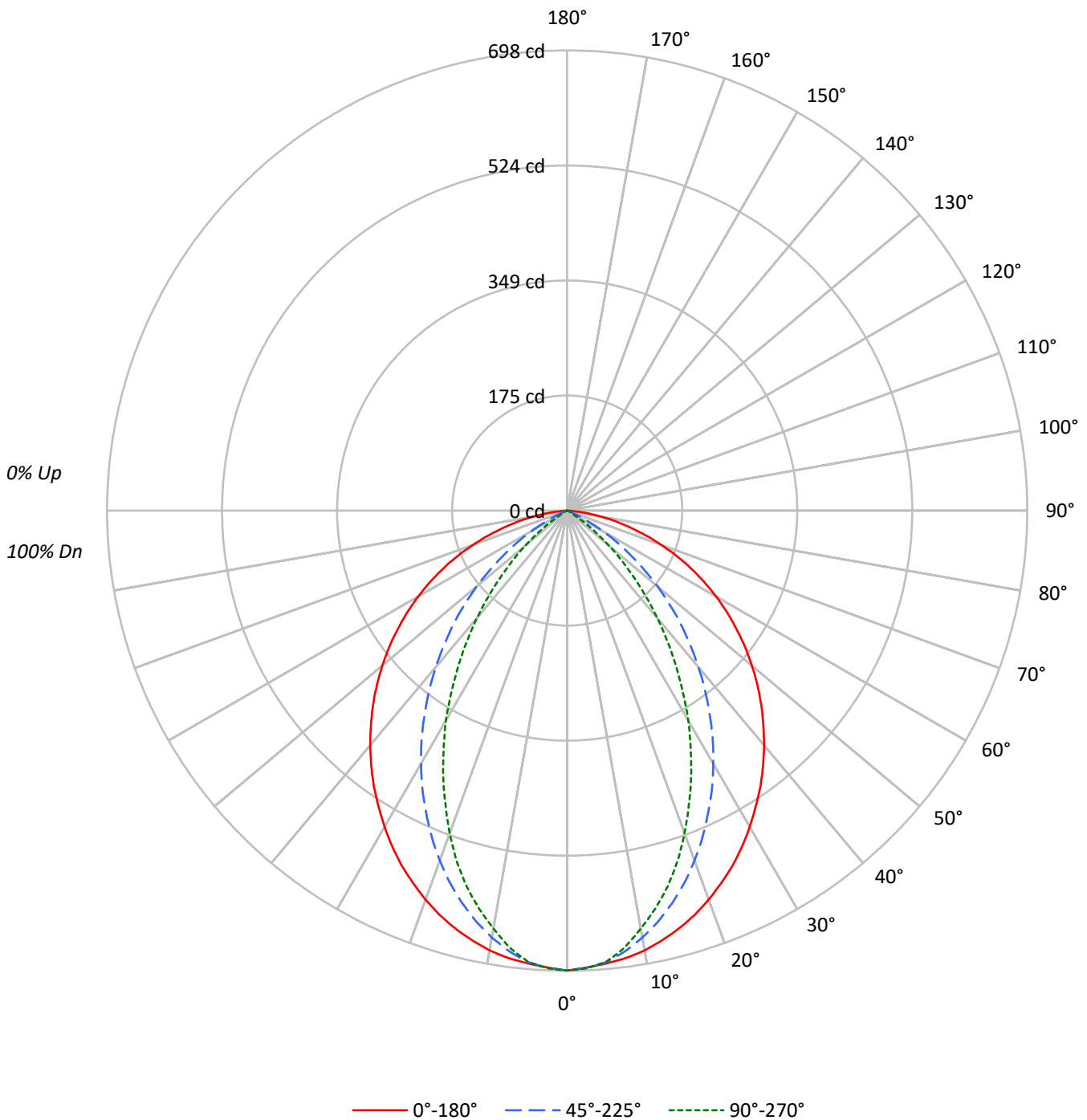
Lumens per Lamp: N/A
Luminaire Lumens: 1130.8 lumens
Efficiency: N/A
Efficacy: 65.4 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 0.89 / 1.07
Luminous Opening: Rectangular (W 0.39' x L: 3.9' x H: 0')
CIE Type: Direct

Input Watts (W): 17.3
Input Voltage (V): 120
Input Current (A_{in}): 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	104	101	109	106	103	100	101	99	97	98	96	94	94	93	91	89				89
2	103	97	91	87	101	95	90	86	92	88	84	89	85	82	86	83	80	78				78
3	96	87	81	75	94	86	80	75	83	78	74	80	76	72	78	74	71	69				69
4	89	79	72	66	87	78	71	66	76	70	65	73	68	64	71	67	63	61				61
5	83	72	64	59	81	71	64	58	69	63	58	67	62	57	65	61	57	55				55
6	77	66	58	53	76	65	58	52	63	57	52	62	56	52	60	55	51	49				49
7	72	61	53	47	71	60	52	47	58	52	47	57	51	47	56	50	46	45				45
8	68	56	48	43	66	55	48	43	54	47	43	53	47	43	52	46	42	41				41
9	64	52	44	39	62	51	44	39	50	44	39	49	43	39	48	43	39	37				37
10	60	48	41	36	59	48	41	36	47	40	36	46	40	36	45	40	36	34				34

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	4932	4932	4932
5°	4892	4877	4872
10°	4864	4721	4621
15°	4803	4509	4317
20°	4723	4250	3917
25°	4633	3948	3473
30°	4521	3618	3003
35°	4410	3252	2482
40°	4288	2859	1966
45°	4162	2440	1424
50°	4023	1970	921
55°	3869	1441	409
60°	3686	889	117
65°	3458	325	69
70°	3129	114	29
75°	2720	38	19
80°	2084	28	0
85°	957	0	0

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 4162 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	64.8	5.7
10°-20°	174.0	15.4
20°-30°	235.4	20.8
30°-40°	241.8	21.4
40°-50°	200.3	17.7
50°-60°	128.6	11.4
60°-70°	62.1	5.5
70°-80°	21.0	1.9
80°-90°	2.7	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°	474.2	41.9
0°-40°	716.0	63.3
0°-60°	1045.0	92.4
0°-90°	1130.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1130.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	698	698	698	698	698	
5°	689	695	687	683	687	65
15°	656	648	616	595	590	185
25°	594	565	506	460	445	273
35°	511	462	377	311	288	319
45°	416	348	244	169	142	321
55°	314	230	117	51	33	281
65°	207	114	19	6	4	205
75°	100	21	1	1	1	106
85°	12	0	0	0	0	19
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	697.7	697.7	697.7	697.7	697.7
2.5°	693.5	699.1	694.2	693.5	694.9
5°	689.4	694.9	687.3	683.2	686.6
7.5°	684.5	687.3	674.2	667.3	668.6
10°	677.6	676.9	657.6	645.8	643.7
12.5°	667.3	663.8	638.2	621.6	618.2
15°	656.2	647.9	616.1	594.6	589.8
17.5°	643.1	629.9	591.9	564.2	557.3
20°	627.8	609.9	564.9	531.0	520.7
22.5°	611.2	588.4	536.6	496.5	482.6
25°	594.0	564.9	506.1	460.5	445.3
27.5°	574.6	540.7	475.7	423.9	405.2
30°	553.9	515.1	443.2	386.5	367.9
32.5°	532.4	489.5	410.7	349.2	326.4
35°	511.0	461.9	376.8	311.2	287.6
37.5°	488.2	434.2	343.7	275.2	249.6
40°	464.7	405.9	309.8	237.9	213.0
42.5°	440.5	376.8	275.9	202.6	177.0
45°	416.3	347.8	244.1	168.7	142.4
47.5°	391.4	318.1	210.9	135.5	112.7
50°	365.8	289.0	179.1	105.8	83.7
52.5°	340.2	259.3	146.6	76.8	56.7
55°	313.9	230.3	116.9	51.2	33.2
57.5°	287.6	200.5	89.2	28.3	12.4
60°	260.7	172.2	62.9	9.7	8.3
62.5°	234.4	141.7	39.4	7.6	6.2
65°	206.7	114.1	19.4	5.5	4.1
67.5°	179.8	87.8	8.3	3.5	2.1
70°	151.4	63.6	5.5	2.1	1.4
72.5°	125.2	40.8	3.5	1.4	0.7
75°	99.6	21.4	1.4	0.7	0.7
77.5°	74.7	9.0	0.7	0.7	0.7
80°	51.2	4.1	0.7	0.7	0.0
82.5°	30.4	1.4	0.7	0.7	0.0
85°	11.8	0.0	0.0	0.0	0.0
87.5°	0.7	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	16.61	18.00	16.98	18.31	18.62	1.46	2.85	1.83	3.16	3.48
	3H	18.16	19.39	18.54	19.72	20.08	1.39	2.62	1.77	2.95	3.31
	4H	18.68	19.83	19.09	20.18	20.56	1.32	2.47	1.72	2.82	3.20
	6H	19.02	20.08	19.44	20.44	20.84	1.25	2.30	1.67	2.67	3.07
	8H	19.11	20.10	19.53	20.49	20.90	1.21	2.21	1.64	2.60	3.00
	12H	19.12	20.08	19.55	20.46	20.89	1.17	2.12	1.60	2.51	2.94
4H	2H	16.42	17.56	16.82	17.91	18.29	2.34	3.48	2.74	3.83	4.21
	3H	18.03	18.96	18.44	19.37	19.77	2.29	3.22	2.70	3.62	4.03
	4H	18.55	19.39	18.99	19.80	20.25	2.21	3.04	2.64	3.46	3.90
	6H	18.93	19.65	19.39	20.09	20.56	2.14	2.86	2.61	3.31	3.77
	8H	19.03	19.70	19.49	20.14	20.61	2.09	2.76	2.56	3.21	3.68
	12H	19.06	19.65	19.55	20.14	20.61	2.05	2.64	2.54	3.13	3.60
8H	4H	18.42	19.09	18.89	19.54	20.01	3.23	3.90	3.70	4.35	4.82
	6H	18.78	19.33	19.28	19.82	20.30	3.15	3.70	3.65	4.19	4.67
	8H	18.87	19.37	19.39	19.88	20.37	3.10	3.59	3.62	4.10	4.59
	12H	18.92	19.35	19.43	19.85	20.42	3.06	3.49	3.57	3.98	4.55
12H	4H	18.38	18.98	18.87	19.46	19.93	3.31	3.90	3.79	4.38	4.86
	6H	18.72	19.21	19.24	19.73	20.22	3.21	3.70	3.73	4.22	4.71
	8H	18.83	19.27	19.35	19.76	20.33	3.18	3.61	3.69	4.11	4.68