

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: P1056574

Luminaire Tested: S125R3DR-H610D830-X4F0-XX-UDD-FLL-B

Issue Date: 7/25/2025

Test Information

Test Method: LM-79-2019
Report Number: P1056574
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-H610D830-X4F0-XX-UDD-FLL-B
Description: DEFINE 5, BLACK 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 3000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

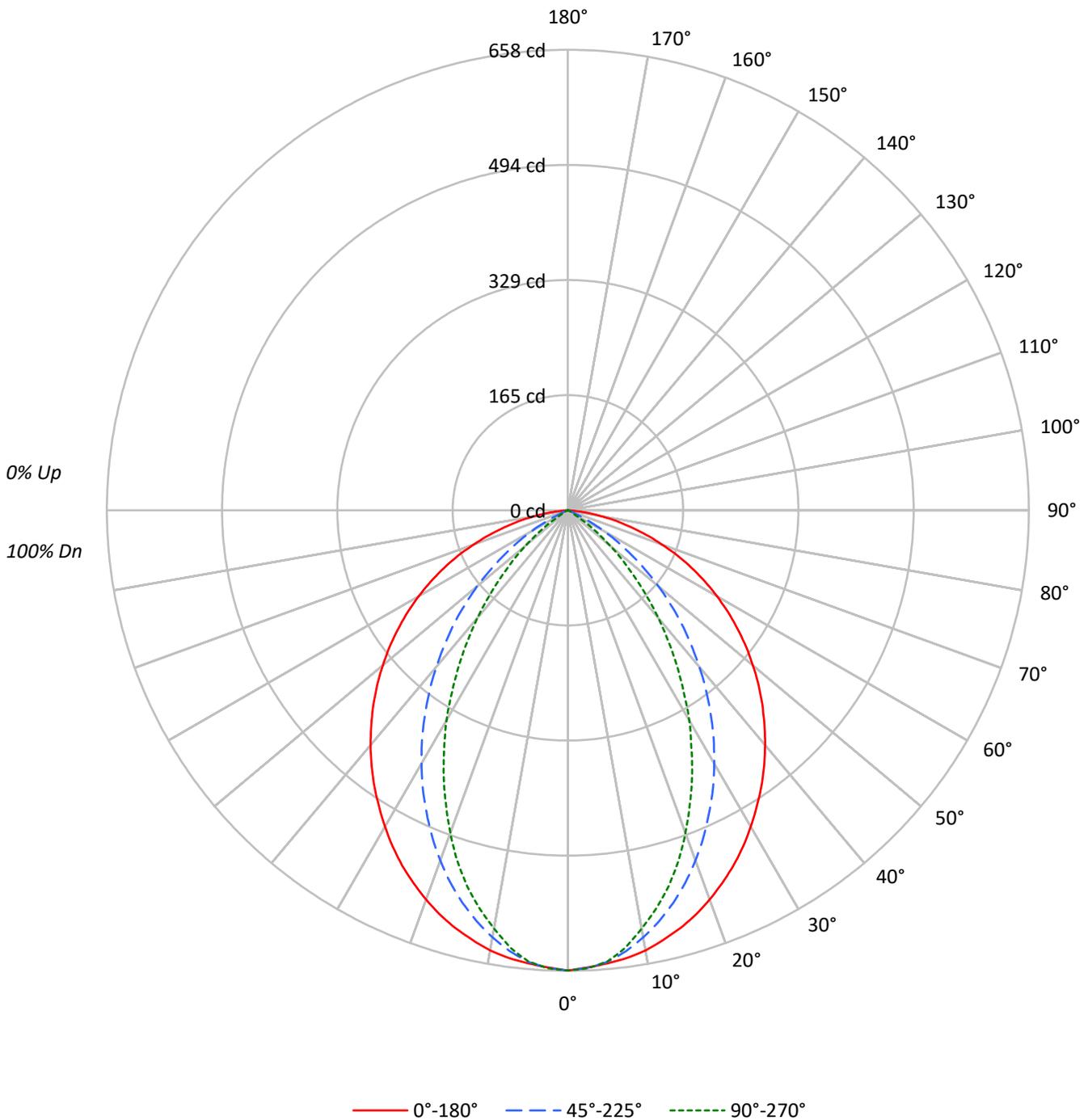
Lumens per Lamp: N/A
Luminaire Lumens: 1065.9 lumens
Efficiency: N/A
Efficacy: 61.6 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 0.89 / 1.07
Luminous Opening: Rectangular (W 0.39' x L: 3.9' x H: 0')
CIE Type: Direct

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	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	111	108	104	101	109	106	103	100	101	99	97	98	96	94	94	93	91	89
2	103	97	91	87	101	95	90	86	92	88	84	89	85	82	86	83	80	78
3	96	87	81	75	94	86	80	75	83	78	74	80	76	72	78	74	71	69
4	89	79	72	66	87	78	71	66	76	70	65	73	68	64	71	67	63	61
5	83	72	64	59	81	71	64	58	69	63	58	67	62	57	65	61	57	55
6	77	66	58	53	76	65	58	52	63	57	52	62	56	52	60	55	51	49
7	72	61	53	47	71	60	52	47	58	52	47	57	51	47	56	50	46	45
8	68	56	48	43	66	55	48	43	54	47	43	53	47	43	52	46	42	41
9	64	52	44	39	62	51	44	39	50	44	39	49	43	39	48	43	39	37
10	60	48	41	36	59	48	41	36	47	40	36	46	40	36	45	40	36	34

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	4649	4649	4649
5°	4611	4597	4593
10°	4585	4449	4356
15°	4527	4250	4068
20°	4452	4006	3692
25°	4367	3721	3274
30°	4261	3410	2830
35°	4156	3065	2340
40°	4042	2695	1852
45°	3922	2300	1343
50°	3792	1856	868
55°	3647	1357	386
60°	3474	838	110
65°	3260	304	65
70°	2950	107	27
75°	2562	36	19
80°	1962	28	0
85°	900	0	0

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 3922 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	61.1	5.7
10°-20°	164.0	15.4
20°-30°	221.9	20.8
30°-40°	227.9	21.4
40°-50°	188.8	17.7
50°-60°	121.2	11.4
60°-70°	58.6	5.5
70°-80°	19.8	1.9
80°-90°	2.6	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°	446.9	41.9
0°-40°	674.9	63.3
0°-60°	984.9	92.4
0°-90°	1065.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1065.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	658	658	658	658	658	
5°	650	655	648	644	647	62
15°	618	611	581	560	556	174
25°	560	532	477	434	420	258
35°	482	435	355	293	271	301
45°	392	328	230	159	134	303
55°	296	217	110	48	31	264
65°	195	108	18	5	4	193
75°	94	20	1	1	1	100
85°	11	0	0	0	0	18
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	657.6	657.6	657.6	657.6	657.6
2.5°	653.7	658.9	654.3	653.7	655.0
5°	649.8	655.0	647.8	643.9	647.2
7.5°	645.2	647.8	635.4	628.9	630.2
10°	638.7	638.0	619.8	608.7	606.8
12.5°	628.9	625.7	601.5	585.9	582.6
15°	618.5	610.7	580.7	560.5	555.9
17.5°	606.1	593.7	557.9	531.8	525.3
20°	591.8	574.8	532.5	500.5	490.7
22.5°	576.1	554.6	505.7	467.9	454.9
25°	559.8	532.5	477.1	434.0	419.7
27.5°	541.6	509.6	448.4	399.5	381.9
30°	522.0	485.5	417.8	364.3	346.7
32.5°	501.8	461.4	387.1	329.1	307.6
35°	481.6	435.4	355.2	293.3	271.1
37.5°	460.1	409.3	323.9	259.4	235.3
40°	438.0	382.6	292.0	224.2	200.7
42.5°	415.1	355.2	260.0	191.0	166.8
45°	392.3	327.8	230.1	159.0	134.3
47.5°	368.9	299.8	198.8	127.7	106.2
50°	344.8	272.4	168.8	99.7	78.9
52.5°	320.6	244.4	138.2	72.3	53.4
55°	295.9	217.0	110.1	48.2	31.3
57.5°	271.1	189.0	84.1	26.7	11.7
60°	245.7	162.3	59.3	9.1	7.8
62.5°	220.9	133.6	37.1	7.2	5.9
65°	194.9	107.5	18.2	5.2	3.9
67.5°	169.4	82.8	7.8	3.3	2.0
70°	142.7	60.0	5.2	2.0	1.3
72.5°	118.0	38.5	3.3	1.3	0.7
75°	93.8	20.2	1.3	0.7	0.7
77.5°	70.4	8.5	0.7	0.7	0.7
80°	48.2	3.9	0.7	0.7	0.0
82.5°	28.7	1.3	0.7	0.7	0.0
85°	11.1	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	16.41	17.79	16.77	18.10	18.42	1.26	2.65	1.63	2.96	3.28
	3H	17.96	19.18	18.34	19.51	19.88	1.19	2.42	1.57	2.75	3.11
	4H	18.48	19.62	18.88	19.97	20.36	1.12	2.27	1.53	2.62	3.00
	6H	18.82	19.87	19.23	20.24	20.63	1.05	2.11	1.47	2.48	2.87
	8H	18.90	19.90	19.33	20.29	20.69	1.01	2.01	1.44	2.40	2.81
	12H	18.92	19.87	19.35	20.25	20.68	0.97	1.93	1.41	2.31	2.74
4H	2H	16.21	17.35	16.61	17.70	18.09	2.13	3.27	2.53	3.62	4.00
	3H	17.82	18.76	18.24	19.16	19.56	2.08	3.01	2.49	3.41	3.82
	4H	18.35	19.18	18.78	19.60	20.04	2.00	2.83	2.44	3.25	3.70
	6H	18.72	19.44	19.18	19.89	20.35	1.94	2.66	2.40	3.10	3.57
	8H	18.82	19.49	19.29	19.94	20.41	1.89	2.56	2.35	3.00	3.47
	12H	18.86	19.45	19.34	19.93	20.40	1.84	2.44	2.33	2.92	3.39
8H	4H	18.22	18.89	18.69	19.34	19.81	3.03	3.70	3.49	4.14	4.61
	6H	18.57	19.12	19.08	19.62	20.10	2.95	3.49	3.45	3.99	4.47
	8H	18.67	19.16	19.19	19.68	20.17	2.89	3.39	3.41	3.90	4.39
	12H	18.71	19.15	19.23	19.64	20.21	2.85	3.29	3.37	3.78	4.35
12H	4H	18.18	18.77	18.66	19.25	19.73	3.11	3.70	3.59	4.18	4.65
	6H	18.51	19.01	19.03	19.52	20.01	3.01	3.50	3.53	4.02	4.51
	8H	18.63	19.06	19.14	19.56	20.13	2.98	3.41	3.49	3.91	4.48