

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: P1056591

Luminaire Tested: S125R3DR-H610D930-X4F0-XX-UDD-F-W

Issue Date: 7/25/2025

Test Information

Test Method: LM-79-2024
Report Number: P1056591
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2503-402-10)
Test Lab: INNOVATION CENTER
Issue Date: 7/25/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S125R3DR-H610D930-X4F0-XX-UDD-F-W
Description: DEFINE 5, WHITE 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 3000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

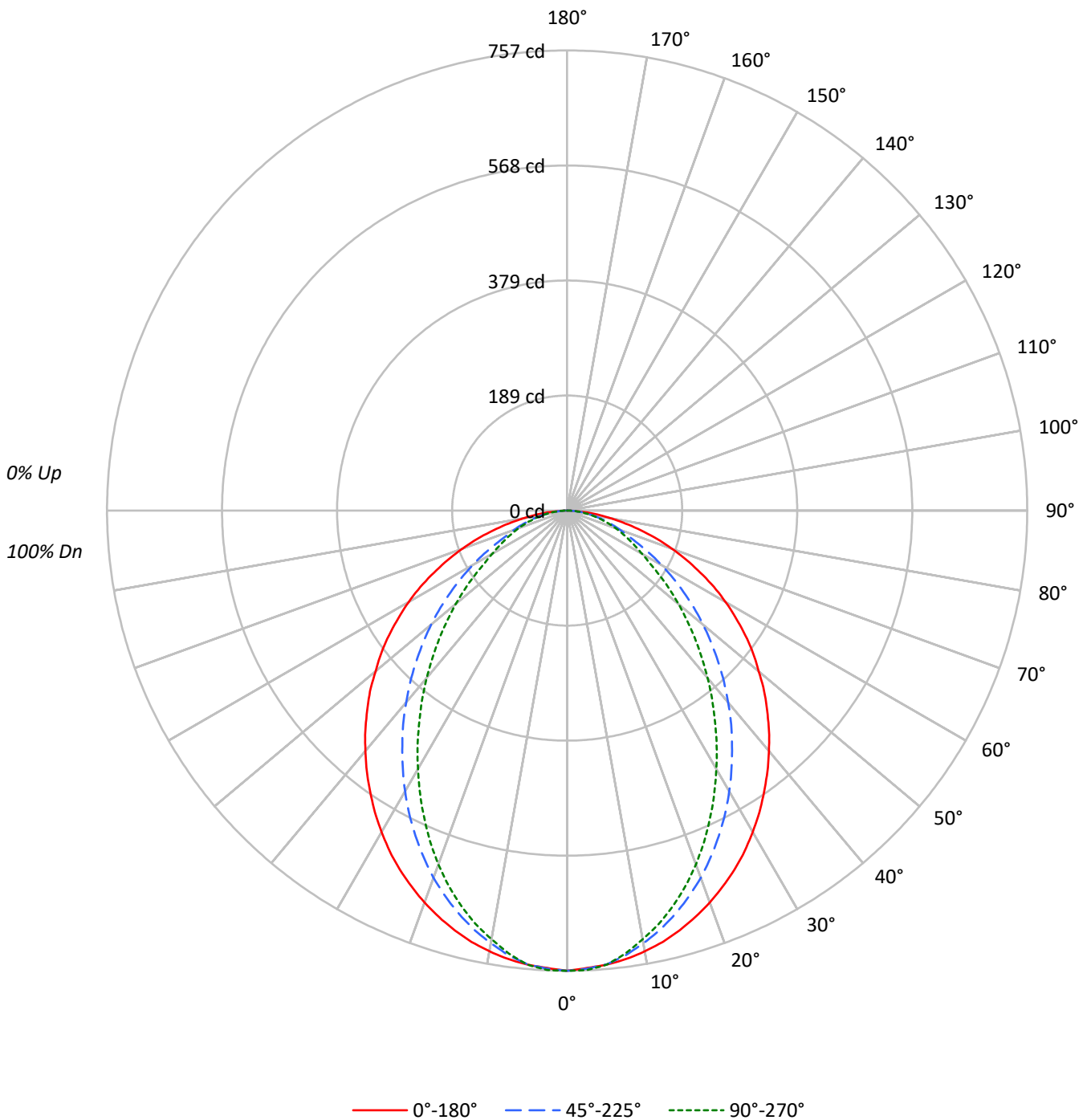
Lumens per Lamp: N/A
Luminaire Lumens: 1604.7 lumens
Efficiency: N/A
Efficacy: 92.8 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.01 / 1.17
Luminous Opening: Rectangular (W 0.39' x L: 3.9' x H: 0')
CIE Type: Direct

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	110	105	101	98	107	103	100	96	99	96	93	95	93	90	91	90	88	86
2	101	93	87	81	98	91	85	80	88	83	79	84	80	77	81	78	75	73
3	92	83	75	69	90	81	74	68	78	72	67	75	70	66	73	69	65	63
4	85	74	66	59	83	73	65	59	70	63	58	68	62	57	66	61	57	55
5	79	67	58	52	77	66	58	52	63	56	51	62	55	51	60	54	50	48
6	73	60	52	46	71	59	51	46	58	51	45	56	50	45	55	49	45	43
7	68	55	47	41	66	54	46	41	53	46	41	51	45	40	50	44	40	38
8	63	51	42	37	62	50	42	37	49	42	37	47	41	36	46	40	36	34
9	59	47	39	33	58	46	39	33	45	38	33	44	38	33	43	37	33	31
10	56	43	36	31	55	43	35	30	42	35	30	41	35	30	40	34	30	28

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	5352	5352	5352
5°	5321	5317	5321
10°	5285	5188	5139
15°	5231	5029	4926
20°	5162	4835	4661
25°	5083	4604	4345
30°	4983	4353	4008
35°	4875	4082	3658
40°	4766	3803	3314
45°	4650	3511	2970
50°	4526	3211	2629
55°	4412	2884	2286
60°	4256	2535	2009
65°	4045	2149	1867
70°	3799	1922	1749
75°	3433	1770	1647
80°	2984	1608	1539
85°	2336	1419	1419

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 4650 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	70.8	4.4
10°-20°	194.5	12.1
20°-30°	274.8	17.1
30°-40°	302.5	18.8
40°-50°	282.1	17.6
50°-60°	225.2	14.0
60°-70°	151.6	9.4
70°-80°	80.7	5.0
80°-90°	22.4	1.4
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°	540.1	33.7
0°-40°	842.6	52.5
0°-60°	1349.9	84.1
0°-90°	1604.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1604.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	757	757	757	757	757	
5°	750	756	749	747	750	71
15°	715	711	687	675	673	202
25°	652	632	590	564	557	300
35°	565	532	473	436	424	353
45°	465	421	351	308	297	359
55°	358	304	234	197	186	320
65°	242	189	128	114	112	240
75°	126	83	65	61	60	134
85°	29	20	18	18	18	34
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	757.1	757.1	757.1	757.1	757.1
2.5°	753.2	759.4	754.3	755.4	756.5
5°	749.8	756.0	749.2	747.0	749.8
7.5°	744.1	749.2	737.9	732.9	735.1
10°	736.2	739.6	722.7	715.9	715.9
12.5°	726.7	726.7	706.4	696.8	696.8
15°	714.8	710.9	687.2	675.4	673.1
17.5°	701.3	694.0	665.8	650.6	647.7
20°	686.1	674.2	642.7	622.9	619.5
22.5°	669.2	653.9	617.3	593.1	589.1
25°	651.7	632.0	590.2	564.3	557.0
27.5°	632.0	608.3	562.6	533.3	524.3
30°	610.5	583.5	533.3	500.6	491.0
32.5°	588.5	558.1	503.4	468.5	457.8
35°	564.9	531.6	473.0	435.8	423.9
37.5°	541.2	505.1	443.1	404.2	391.8
40°	516.4	476.9	412.1	372.1	359.1
42.5°	491.6	449.3	381.7	341.1	327.5
45°	465.1	421.1	351.2	308.4	297.1
47.5°	439.7	392.4	321.3	279.6	267.2
50°	411.5	362.5	292.0	250.3	239.0
52.5°	385.6	333.2	262.7	223.8	212.0
55°	358.0	303.9	234.0	196.7	185.5
57.5°	329.2	274.5	206.3	171.4	160.7
60°	301.0	245.2	179.3	147.1	142.1
62.5°	272.3	217.6	153.9	129.1	125.7
65°	241.8	188.9	128.5	113.9	111.6
67.5°	213.1	161.2	108.2	99.8	97.5
70°	183.8	133.6	93.0	85.7	84.6
72.5°	155.0	107.1	78.4	73.3	72.2
75°	125.7	83.4	64.8	60.9	60.3
77.5°	98.7	62.6	51.3	49.6	48.5
80°	73.3	46.8	39.5	38.3	37.8
82.5°	50.2	32.1	28.2	28.2	27.1
85°	28.8	19.7	17.5	18.0	17.5
87.5°	10.7	8.5	7.9	8.5	8.5
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	17.12	18.66	17.48	18.97	19.28	13.50	15.04	13.86	15.35	15.67
	3H	18.90	20.28	19.28	20.61	20.97	14.98	16.36	15.35	16.69	17.05
	4H	19.55	20.85	19.95	21.20	21.58	15.57	16.86	15.97	17.21	17.59
	6H	20.03	21.23	20.44	21.60	21.99	16.03	17.23	16.44	17.60	17.99
	8H	20.19	21.33	20.61	21.72	22.12	16.19	17.33	16.62	17.72	18.12
	12H	20.28	21.38	20.71	21.76	22.19	16.30	17.40	16.73	17.78	18.21
4H	2H	17.25	18.55	17.65	18.90	19.28	14.18	15.47	14.58	15.82	16.20
	3H	19.22	20.30	19.63	20.70	21.10	15.85	16.93	16.26	17.33	17.73
	4H	19.97	20.94	20.40	21.35	21.79	16.56	17.53	16.99	17.95	18.38
	6H	20.56	21.41	21.02	21.85	22.31	17.14	17.99	17.60	18.43	18.89
	8H	20.77	21.56	21.23	22.00	22.47	17.35	18.14	17.81	18.59	19.05
	12H	20.91	21.62	21.40	22.10	22.57	17.51	18.22	17.99	18.70	19.17
8H	4H	20.03	20.82	20.49	21.27	21.73	16.92	17.71	17.38	18.16	18.62
	6H	20.69	21.35	21.18	21.84	22.31	17.62	18.28	18.12	18.77	19.25
	8H	20.94	21.53	21.46	22.04	22.53	17.91	18.50	18.42	19.00	19.49
	12H	21.15	21.67	21.66	22.16	22.73	18.15	18.67	18.66	19.16	19.73
12H	4H	20.02	20.73	20.50	21.21	21.68	16.97	17.68	17.45	18.16	18.63
	6H	20.68	21.27	21.20	21.78	22.27	17.69	18.28	18.21	18.79	19.28
	8H	20.98	21.50	21.49	21.99	22.55	18.04	18.56	18.55	19.05	19.61