

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: P1056421

Luminaire Tested: S125R3DR-S375D850-X4F0-XX-UDD-F-B

Issue Date: 7/25/2025

Test Information

Test Method: LM-79-2024
Report Number: P1056421
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-S375D850-X4F0-XX-UDD-F-B
Description: DEFINE 5, BLACK 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS
CORE LIGHT ENGINE
Light Source: 5000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

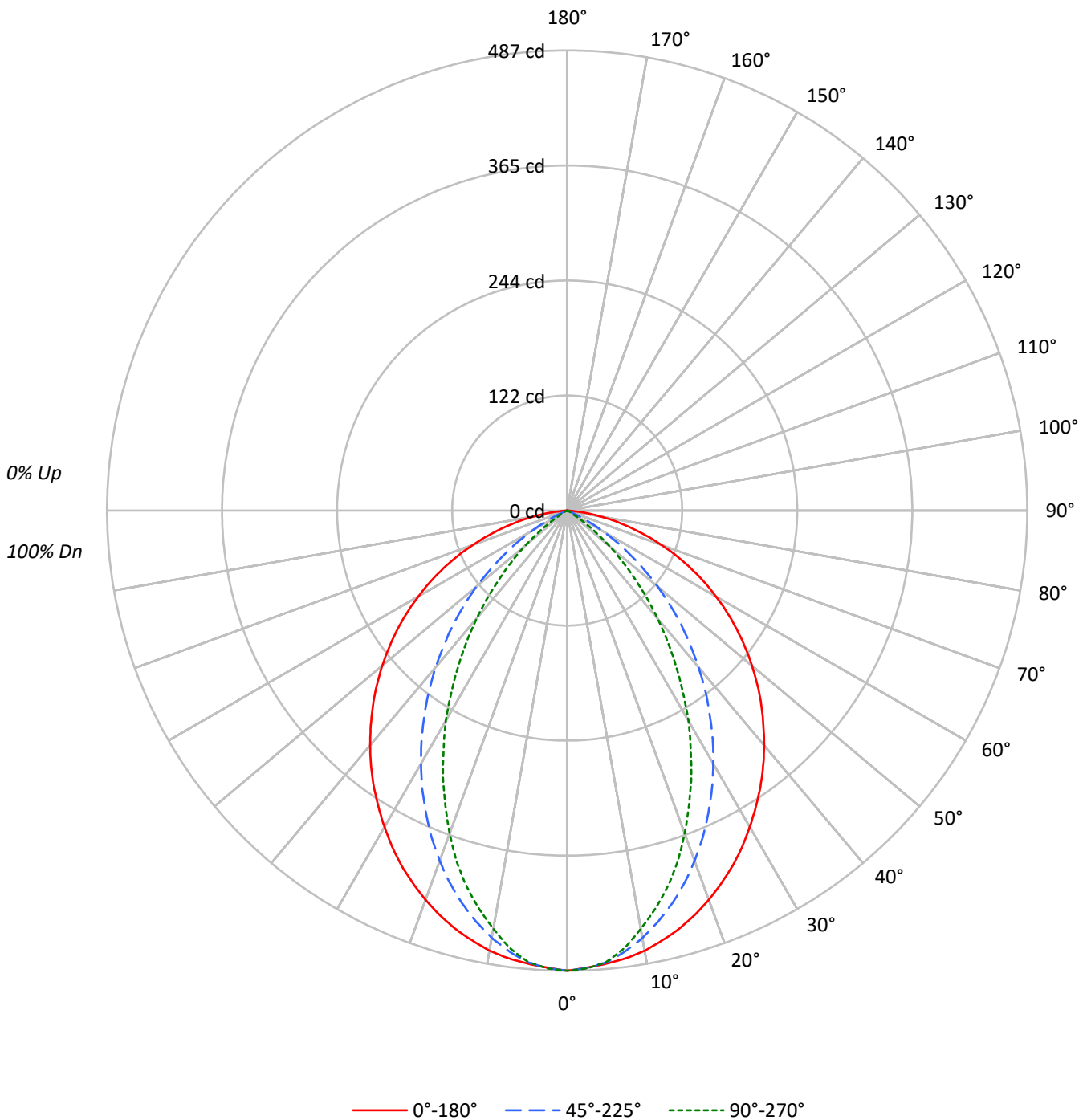
Lumens per Lamp: N/A
Luminaire Lumens: 789.4 lumens
Efficiency: N/A
Efficacy: 62.7 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 0.89 / 1.07
Luminous Opening: Rectangular (W 0.39' x L: 3.9' x H: 0')
CIE Type: Direct

Input Watts (W): 12.6
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	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°	3443	3443	3443
5°	3415	3405	3401
10°	3395	3296	3226
15°	3353	3148	3013
20°	3297	2967	2735
25°	3234	2756	2425
30°	3156	2526	2096
35°	3078	2271	1733
40°	2994	1996	1372
45°	2905	1704	994
50°	2808	1375	642
55°	2700	1006	286
60°	2573	621	82
65°	2414	226	49
70°	2185	81	21
75°	1898	27	14
80°	1453	20	0
85°	665	0	0

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 2905 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	45.2	5.7
10°-20°	121.5	15.4
20°-30°	164.3	20.8
30°-40°	168.8	21.4
40°-50°	139.9	17.7
50°-60°	89.8	11.4
60°-70°	43.4	5.5
70°-80°	14.7	1.9
80°-90°	1.9	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°	331.0	41.9
0°-40°	499.8	63.3
0°-60°	729.5	92.4
0°-90°	789.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	789.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	487	487	487	487	487	
5°	481	485	480	477	479	46
15°	458	452	430	415	412	129
25°	415	394	353	322	311	191
35°	357	322	263	217	201	223
45°	291	243	170	118	99	224
55°	219	161	82	36	23	196
65°	144	80	14	4	3	143
75°	70	15	1	0	0	74
85°	8	0	0	0	0	13
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	487.0	487.0	487.0	487.0	487.0
2.5°	484.2	488.0	484.6	484.2	485.1
5°	481.3	485.1	479.8	476.9	479.3
7.5°	477.9	479.8	470.6	465.8	466.8
10°	473.0	472.6	459.1	450.8	449.4
12.5°	465.8	463.4	445.5	433.9	431.5
15°	458.1	452.3	430.1	415.1	411.7
17.5°	448.9	439.7	413.2	393.9	389.1
20°	438.3	425.7	394.4	370.7	363.5
22.5°	426.7	410.8	374.6	346.6	336.9
25°	414.6	394.4	353.3	321.5	310.9
27.5°	401.1	377.5	332.1	295.9	282.9
30°	386.6	359.6	309.4	269.8	256.8
32.5°	371.7	341.8	286.7	243.8	227.8
35°	356.7	322.4	263.1	217.2	200.8
37.5°	340.8	303.1	239.9	192.1	174.3
40°	324.4	283.3	216.3	166.0	148.7
42.5°	307.5	263.1	192.6	141.4	123.6
45°	290.6	242.8	170.4	117.8	99.4
47.5°	273.2	222.0	147.2	94.6	78.7
50°	255.3	201.8	125.0	73.9	58.4
52.5°	237.5	181.0	102.3	53.6	39.6
55°	219.1	160.7	81.6	35.7	23.2
57.5°	200.8	140.0	62.3	19.8	8.7
60°	182.0	120.2	43.9	6.8	5.8
62.5°	163.6	99.0	27.5	5.3	4.3
65°	144.3	79.6	13.5	3.9	2.9
67.5°	125.5	61.3	5.8	2.4	1.4
70°	105.7	44.4	3.9	1.4	1.0
72.5°	87.4	28.5	2.4	1.0	0.5
75°	69.5	15.0	1.0	0.5	0.5
77.5°	52.1	6.3	0.5	0.5	0.5
80°	35.7	2.9	0.5	0.5	0.0
82.5°	21.2	1.0	0.5	0.5	0.0
85°	8.2	0.0	0.0	0.0	0.0
87.5°	0.5	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	15.36	16.75	15.73	17.06	17.38	0.23	1.62	0.60	1.93	2.25
	3H	16.91	18.14	17.29	18.47	18.84	0.15	1.38	0.53	1.71	2.07
	4H	17.44	18.58	17.84	18.93	19.31	0.09	1.23	0.49	1.58	1.96
	6H	17.78	18.83	18.19	19.20	19.59	0.02	1.07	0.43	1.44	1.83
	8H	17.86	18.85	18.29	19.24	19.65	0.00	0.97	0.41	1.37	1.77
	12H	17.87	18.83	18.31	19.21	19.64	0.00	0.89	0.37	1.27	1.70
4H	2H	15.17	16.31	15.57	16.66	17.04	1.09	2.24	1.50	2.59	2.97
	3H	16.78	17.72	17.19	18.12	18.52	1.04	1.98	1.45	2.38	2.78
	4H	17.30	18.14	17.74	18.56	19.00	0.97	1.80	1.40	2.22	2.66
	6H	17.68	18.40	18.14	18.84	19.31	0.90	1.62	1.36	2.07	2.53
	8H	17.78	18.45	18.25	18.89	19.36	0.85	1.52	1.32	1.97	2.44
	12H	17.81	18.41	18.30	18.89	19.36	0.81	1.40	1.29	1.88	2.36
8H	4H	17.18	17.85	17.64	18.29	18.76	1.99	2.66	2.46	3.11	3.58
	6H	17.53	18.08	18.03	18.58	19.06	1.91	2.46	2.41	2.95	3.43
	8H	17.63	18.12	18.15	18.63	19.12	1.85	2.35	2.37	2.86	3.35
	12H	17.67	18.10	18.18	18.60	19.17	1.81	2.25	2.33	2.74	3.31
12H	4H	17.13	17.73	17.62	18.21	18.68	2.07	2.66	2.55	3.14	3.62
	6H	17.47	17.96	17.99	18.48	18.97	1.97	2.46	2.49	2.98	3.47
	8H	17.58	18.02	18.10	18.51	19.08	1.94	2.37	2.45	2.87	3.44