

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: P1056550

Luminaire Tested: S125R3DR-H375D835-X4F0-XX-UDD-F-B

Issue Date: 7/25/2025

**Test Information**

Test Method: LM-79-2024  
Report Number: P1056550  
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-H375D835-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: -

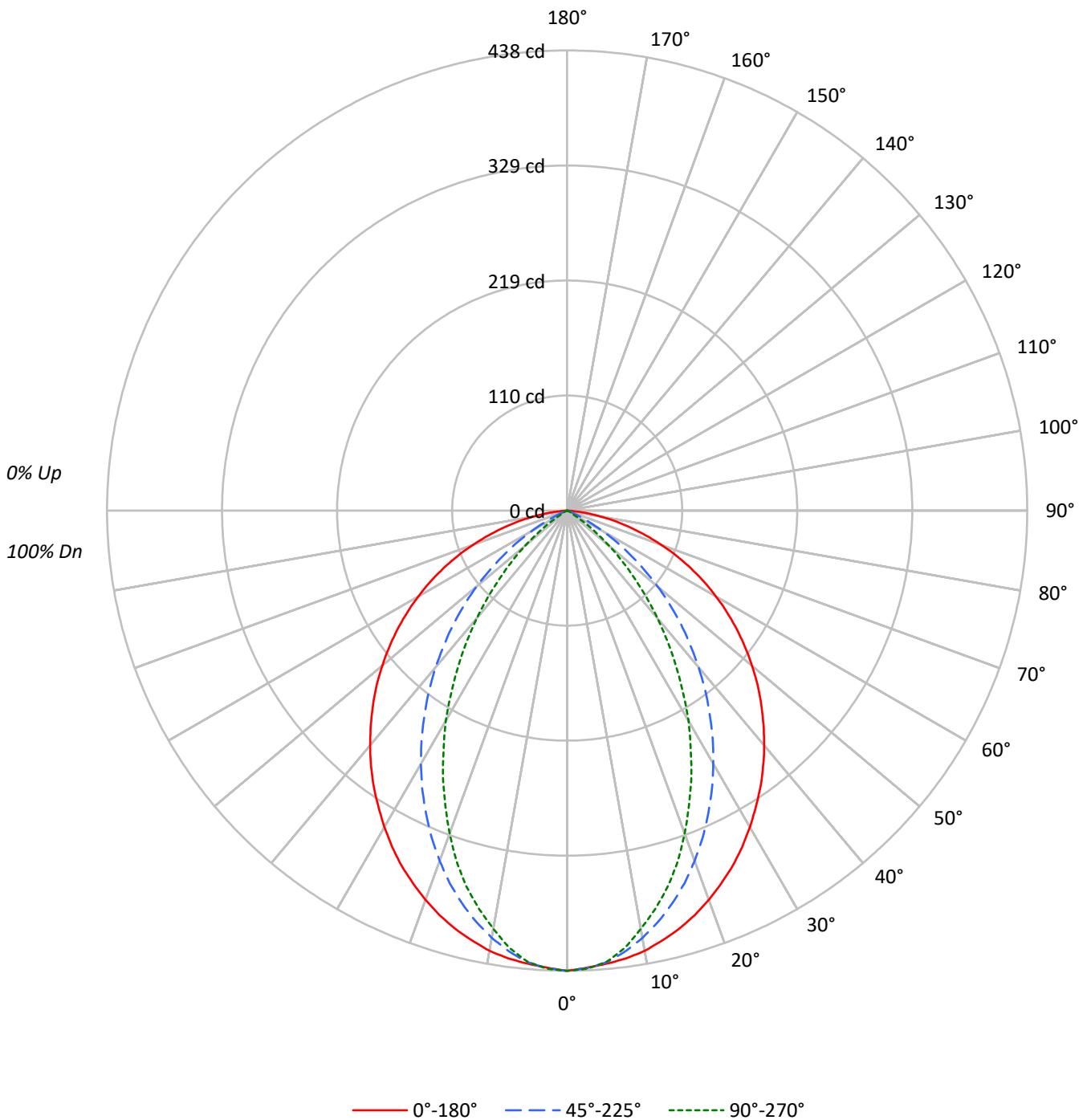
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 710.1 lumens  
Efficiency: N/A  
Efficacy: 60.7 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): 11.7  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): 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°	3097	3097	3097
5°	3072	3063	3060
10°	3054	2964	2902
15°	3015	2832	2711
20°	2966	2668	2459
25°	2909	2479	2181
30°	2839	2272	1886
35°	2769	2042	1559
40°	2693	1795	1234
45°	2613	1533	894
50°	2526	1237	577
55°	2429	905	256
60°	2315	558	74
65°	2171	204	43
70°	1966	72	19
75°	1707	25	11
80°	1307	16	0
85°	600	0	0

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 2613 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	40.7	5.7
10°-20°	109.3	15.4
20°-30°	147.8	20.8
30°-40°	151.8	21.4
40°-50°	125.8	17.7
50°-60°	80.8	11.4
60°-70°	39.0	5.5
70°-80°	13.2	1.9
80°-90°	1.7	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°	297.8	41.9
0°-40°	449.6	63.3
0°-60°	656.2	92.4
0°-90°	710.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	710.1	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	438	438	438	438	438	
5°	433	436	432	429	431	41
15°	412	407	387	373	370	116
25°	373	355	318	289	280	172
35°	321	290	237	195	181	201
45°	261	218	153	106	89	202
55°	197	145	73	32	21	176
65°	130	72	12	4	3	128
75°	62	14	1	0	0	66
85°	7	0	0	0	0	12
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	438.1	438.1	438.1	438.1	438.1
2.5°	435.5	439.0	435.9	435.5	436.4
5°	432.9	436.4	431.6	429.0	431.2
7.5°	429.9	431.6	423.3	419.0	419.9
10°	425.5	425.1	412.9	405.5	404.2
12.5°	419.0	416.8	400.8	390.3	388.2
15°	412.0	406.8	386.9	373.4	370.4
17.5°	403.8	395.5	371.7	354.3	350.0
20°	394.2	383.0	354.7	333.5	326.9
22.5°	383.8	369.5	336.9	311.8	303.1
25°	373.0	354.7	317.8	289.2	279.6
27.5°	360.8	339.5	298.7	266.2	254.4
30°	347.8	323.5	278.3	242.7	231.0
32.5°	334.3	307.4	257.9	219.3	204.9
35°	320.9	290.0	236.6	195.4	180.6
37.5°	306.5	272.7	215.8	172.8	156.7
40°	291.8	254.9	194.5	149.4	133.7
42.5°	276.6	236.6	173.2	127.2	111.2
45°	261.4	218.4	153.3	105.9	89.4
47.5°	245.8	199.7	132.4	85.1	70.8
50°	229.7	181.5	112.5	66.4	52.5
52.5°	213.6	162.8	92.0	48.2	35.6
55°	197.1	144.6	73.4	32.1	20.8
57.5°	180.6	125.9	56.0	17.8	7.8
60°	163.7	108.1	39.5	6.1	5.2
62.5°	147.2	89.0	24.7	4.8	3.9
65°	129.8	71.6	12.2	3.5	2.6
67.5°	112.9	55.1	5.2	2.2	1.3
70°	95.1	39.9	3.5	1.3	0.9
72.5°	78.6	25.6	2.2	0.9	0.4
75°	62.5	13.5	0.9	0.4	0.4
77.5°	46.9	5.6	0.4	0.4	0.4
80°	32.1	2.6	0.4	0.4	0.0
82.5°	19.1	0.9	0.4	0.4	0.0
85°	7.4	0.0	0.0	0.0	0.0
87.5°	0.4	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	14.99	16.38	15.36	16.69	17.01	0.00	1.24	0.22	1.56	1.87
	3H	16.54	17.77	16.92	18.10	18.47	0.00	1.01	0.16	1.34	1.70
	4H	17.07	18.21	17.47	18.56	18.94	0.00	0.86	0.12	1.21	1.59
	6H	17.41	18.46	17.82	18.83	19.22	0.00	0.70	0.06	1.07	1.46
	8H	17.49	18.49	17.92	18.88	19.28	0.00	0.60	0.03	0.99	1.40
	12H	17.51	18.46	17.94	18.84	19.27	0.00	0.52	0.00	0.90	1.33
4H	2H	14.80	15.94	15.20	16.29	16.68	0.73	1.87	1.13	2.22	2.61
	3H	16.41	17.35	16.82	17.75	18.15	0.68	1.61	1.09	2.02	2.42
	4H	16.93	17.77	17.37	18.19	18.63	0.60	1.43	1.04	1.85	2.29
	6H	17.31	18.03	17.77	18.47	18.94	0.53	1.25	1.00	1.70	2.16
	8H	17.41	18.08	17.88	18.53	19.00	0.48	1.15	0.95	1.60	2.07
	12H	17.44	18.04	17.93	18.52	18.99	0.44	1.03	0.93	1.52	1.99
8H	4H	16.81	17.48	17.28	17.92	18.39	1.62	2.29	2.09	2.74	3.21
	6H	17.16	17.71	17.66	18.21	18.69	1.54	2.08	2.04	2.58	3.06
	8H	17.26	17.75	17.78	18.26	18.76	1.48	1.97	2.00	2.49	2.98
	12H	17.30	17.74	17.81	18.23	18.80	1.44	1.88	1.95	2.37	2.94
12H	4H	16.76	17.36	17.25	17.84	18.31	1.70	2.29	2.18	2.77	3.25
	6H	17.10	17.60	17.62	18.11	18.60	1.60	2.09	2.12	2.60	3.10
	8H	17.22	17.65	17.73	18.14	18.71	1.56	2.00	2.08	2.49	3.06