

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: P1055660

Luminaire Tested: S123R3DR-S775D835-X4F0-XX-UDD-F-S

Issue Date: 7/25/2025

**Test Information**

Test Method: LM-79-2024  
Report Number: P1055660  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2503-402-6)  
Test Lab: INNOVATION CENTER  
Issue Date: 7/25/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S123R3DR-S775D835-X4F0-XX-UDD-F-S  
Description: DEFINE 3, SILVER 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS  
CORE LIGHT ENGINE  
Light Source: 3500K CCT, 80 CRI LEDS  
Ballast/Driver: -

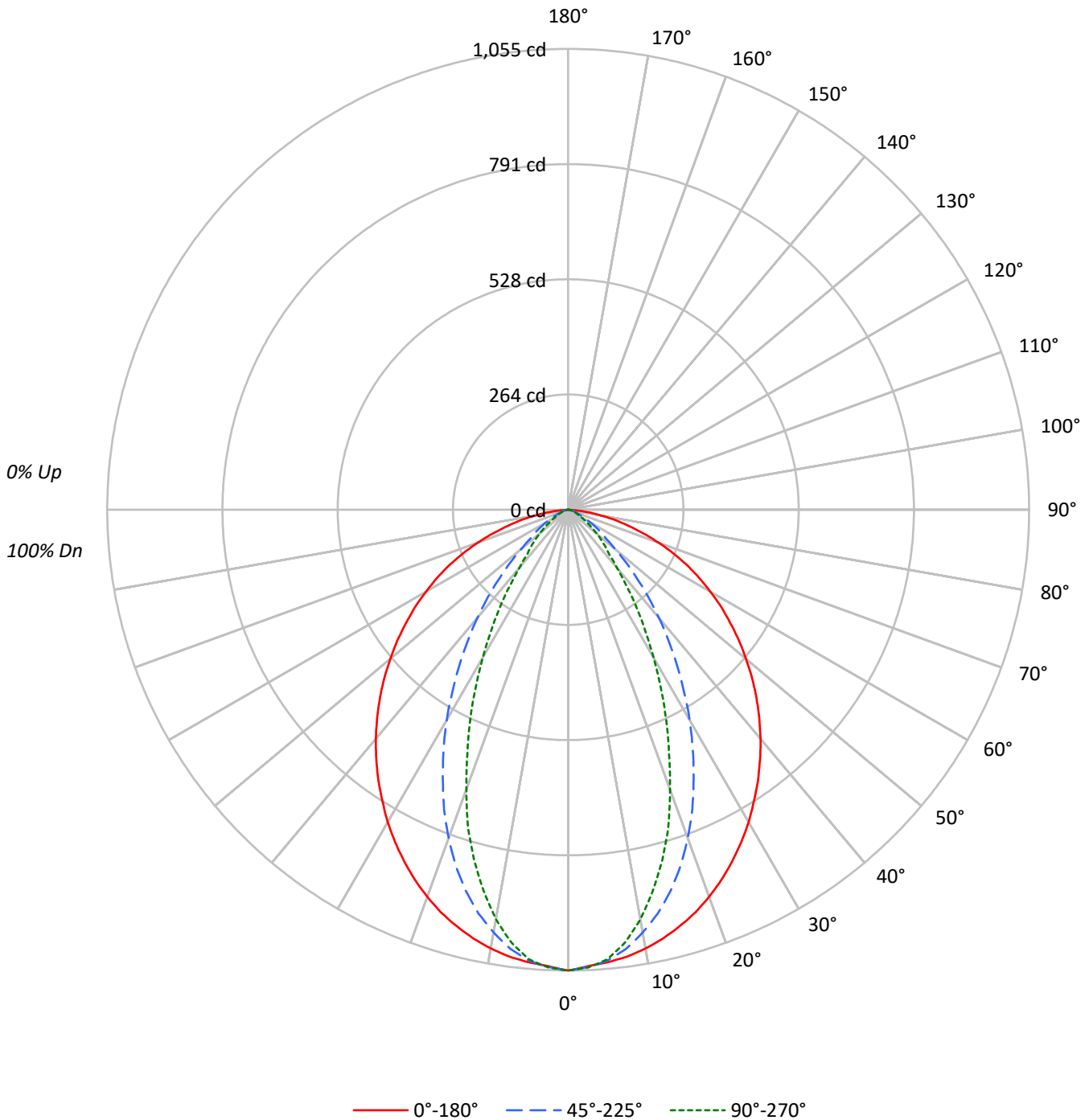
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1467.2 lumens  
Efficiency: N/A  
Efficacy: 55.6 lumens/watt  
Spacing Criteria (0/90/45): 1.17 / 0.77 / 0.94  
Luminous Opening: Rectangular (W 0.23' x L: 3.9' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 26.4  
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	102	109	106	103	100	101	99	97	98	96	94	94	93	91	89
2	104	97	92	87	101	95	90	86	92	88	84	89	85	82	86	83	81	79
3	96	88	81	76	94	86	80	76	84	78	74	81	77	73	79	75	72	70
4	90	80	73	67	88	79	72	67	76	71	66	74	69	65	72	68	64	62
5	84	73	66	60	82	72	65	60	70	64	59	68	63	59	67	62	58	56
6	78	67	60	54	77	66	59	54	65	58	53	63	57	53	62	57	53	51
7	73	62	54	49	72	61	54	49	60	53	49	58	53	48	57	52	48	46
8	69	57	50	45	68	57	50	45	56	49	45	54	49	44	53	48	44	42
9	65	53	46	41	64	53	46	41	52	45	41	51	45	41	50	45	41	39
10	62	50	43	38	60	49	43	38	48	42	38	48	42	38	47	42	38	36

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	12720	12720	12720
5°	12587	12538	12502
10°	12487	12034	11655
15°	12319	11283	10372
20°	12099	10264	8737
25°	11813	9033	7050
30°	11499	7740	5429
35°	11142	6388	4018
40°	10781	5084	2739
45°	10384	3802	2063
50°	9960	2645	1613
55°	9522	1934	1177
60°	9066	1447	844
65°	8530	970	656
70°	7720	705	529
75°	6661	512	419
80°	5346	417	347
85°	2767	415	277

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 10384 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	97.5	6.6
10°-20°	253.9	17.3
20°-30°	318.9	21.7
30°-40°	297.1	20.2
40°-50°	227.4	15.5
50°-60°	151.1	10.3
60°-70°	81.5	5.6
70°-80°	33.4	2.3
80°-90°	6.4	0.4
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°	670.3	45.7
0°-40°	967.4	65.9
0°-60°	1345.9	91.7
0°-90°	1467.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1467.2	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1055	1055	1055	1055	1055	
5°	1040	1051	1036	1032	1033	99
15°	987	971	904	851	831	278
25°	888	828	679	566	530	409
35°	757	645	434	307	273	473
45°	609	450	223	131	121	470
55°	453	262	92	64	56	406
65°	299	101	34	25	23	295
75°	143	24	11	10	9	153
85°	20	3	3	3	2	29
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1055	1055	1055	1055	1055
2.5°	1046	1059	1048	1049	1049
5°	1040	1051	1036	1032	1033
7.5°	1032	1039	1014	1001	999
10°	1020	1022	983	960	952
12.5°	1005	998	947	909	894
15°	987	971	904	851	831
17.5°	967	940	855	786	762
20°	943	905	800	714	681
22.5°	917	868	742	640	603
25°	888	828	679	566	530
27.5°	858	785	617	496	459
30°	826	741	556	428	390
32.5°	791	693	493	365	327
35°	757	645	434	307	273
37.5°	721	597	377	256	218
40°	685	548	323	206	174
42.5°	647	499	272	164	139
45°	609	450	223	131	121
47.5°	571	401	180	113	103
50°	531	354	141	96	86
52.5°	493	307	110	79	70
55°	453	262	92	64	56
57.5°	416	216	76	50	44
60°	376	175	60	39	35
62.5°	338	137	46	31	28
65°	299	101	34	25	23
67.5°	260	73	26	20	19
70°	219	55	20	16	15
72.5°	180	39	15	13	12
75°	143	24	11	10	9
77.5°	110	14	8	8	7
80°	77	8	6	6	5
82.5°	47	5	4	4	4
85°	20	3	3	3	2
87.5°	3	1	1	1	1
90°	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	18.65	20.00	19.01	20.32	20.63	7.22	8.58	7.59	8.89	9.21
	3H	20.40	21.61	20.78	21.94	22.30	7.88	9.09	8.26	9.42	9.78
	4H	21.10	22.23	21.50	22.58	22.96	8.08	9.21	8.48	9.56	9.94
	6H	21.61	22.65	22.03	23.02	23.41	8.20	9.24	8.62	9.61	10.00
	8H	21.75	22.73	22.18	23.12	23.53	8.24	9.22	8.67	9.61	10.01
	12H	21.81	22.74	22.24	23.12	23.56	8.25	9.18	8.68	9.57	10.00
4H	2H	18.46	19.58	18.86	19.93	20.31	7.78	8.90	8.18	9.25	9.64
	3H	20.25	21.17	20.66	21.57	21.98	8.58	9.50	8.99	9.90	10.30
	4H	20.94	21.77	21.38	22.19	22.63	8.84	9.66	9.27	10.08	10.52
	6H	21.51	22.22	21.98	22.67	23.14	9.03	9.74	9.49	10.19	10.65
	8H	21.69	22.35	22.16	22.80	23.27	9.09	9.75	9.55	10.20	10.67
	12H	21.78	22.36	22.26	22.84	23.32	9.12	9.71	9.60	10.19	10.66
8H	4H	20.82	21.48	21.29	21.93	22.40	9.15	9.81	9.62	10.26	10.73
	6H	21.38	21.92	21.88	22.41	22.89	9.40	9.94	9.90	10.43	10.91
	8H	21.55	22.04	22.07	22.55	23.04	9.48	9.97	10.01	10.48	10.98
	12H	21.66	22.08	22.17	22.58	23.15	9.57	9.99	10.08	10.49	11.06
12H	4H	20.78	21.36	21.26	21.85	22.32	9.19	9.78	9.68	10.26	10.74
	6H	21.32	21.80	21.84	22.32	22.81	9.44	9.93	9.96	10.44	10.93
	8H	21.51	21.94	22.03	22.43	23.00	9.57	10.00	10.08	10.49	11.06