

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: P1055229

Luminaire Tested: S122R3DR-S675D835-X4F0-XX-UDD-F-W

Issue Date: 7/25/2025

**Test Information**

Test Method: LM-79-2024  
Report Number: P1055229  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2503-402-1)  
Test Lab: INNOVATION CENTER  
Issue Date: 7/25/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S122R3DR-S675D835-X4F0-XX-UDD-F-W  
Description: DEFINE 2, WHITE 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS  
CORE LIGHT ENGINE  
Light Source: 3500K CCT, 80 CRI LEDS  
Ballast/Driver: -

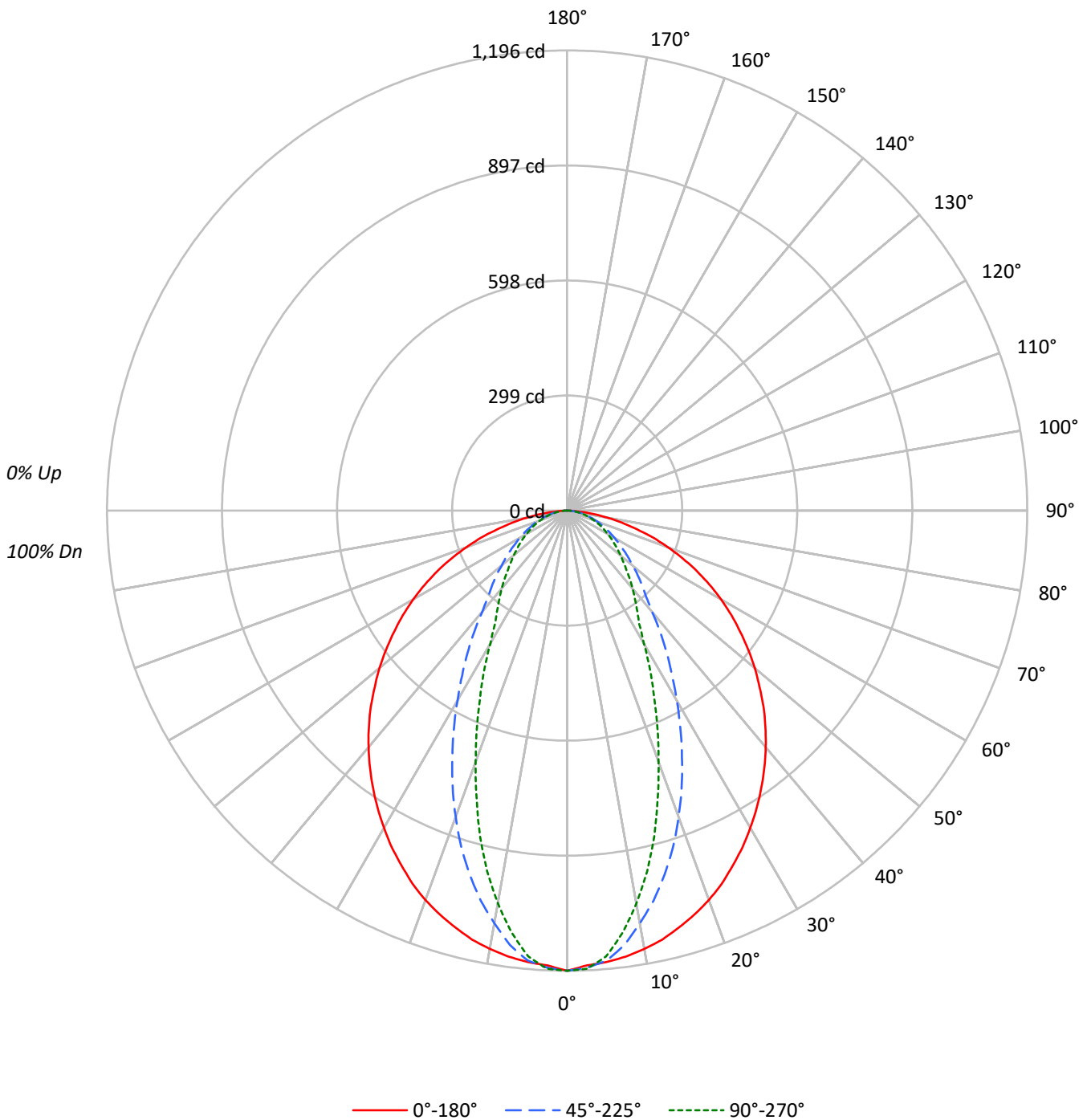
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1809.0 lumens  
Efficiency: N/A  
Efficacy: 68.5 lumens/watt  
Spacing Criteria (0/90/45): 1.19 / 0.71 / 0.9  
Luminous Opening: Rectangular (W 0.15' 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	110	106	102	99	108	104	101	97	100	97	94	96	94	92	92	91	89	87
2	102	95	89	84	99	93	87	83	89	85	81	86	82	79	83	80	77	75
3	94	85	78	72	92	83	77	71	80	75	70	78	73	69	75	71	68	66
4	87	76	69	63	85	75	68	62	73	66	61	71	65	61	68	64	60	58
5	81	69	61	55	79	68	61	55	66	60	55	64	59	54	63	58	54	52
6	75	63	55	50	74	63	55	49	61	54	49	59	53	49	58	52	48	46
7	71	58	50	45	69	58	50	45	56	49	44	55	49	44	53	48	44	42
8	66	54	46	41	65	53	46	41	52	45	40	51	45	40	50	44	40	38
9	62	50	43	37	61	49	42	37	48	42	37	47	41	37	46	41	37	35
10	59	47	39	35	58	46	39	34	45	39	34	44	38	34	43	38	34	32

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

	0°	45°	90°
0°	22659	22659	22659
5°	22403	22327	22118
10°	22259	20950	19950
15°	22007	19202	17162
20°	21714	17077	14012
25°	21281	14759	11184
30°	20827	12470	8729
35°	20353	10431	7332
40°	19860	8458	6529
45°	19345	7395	5841
50°	18775	6543	5335
55°	18134	5913	4955
60°	17506	5381	4623
65°	16677	4931	4348
70°	15455	4598	4099
75°	13689	4172	3880
80°	11674	3928	3600
85°	8043	3478	3261

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 19345 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	109.6	6.1
10°-20°	276.7	15.3
20°-30°	341.0	18.8
30°-40°	327.1	18.1
40°-50°	282.2	15.6
50°-60°	218.9	12.1
60°-70°	149.9	8.3
70°-80°	81.4	4.5
80°-90°	22.3	1.2
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°	727.3	40.2
0°-40°	1054.4	58.3
0°-60°	1555.4	86.0
0°-90°	1809.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1809.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1196	1196	1196	1196	1196	
5°	1178	1195	1174	1159	1163	112
15°	1122	1088	979	899	875	316
25°	1018	909	706	576	535	469
35°	880	698	451	336	317	550
45°	722	486	276	228	218	556
55°	549	292	179	155	150	491
65°	372	159	110	100	97	367
75°	187	73	57	54	53	200
85°	37	18	16	16	15	47
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1196	1196	1196	1196	1196
2.5°	1183	1203	1189	1189	1192
5°	1178	1195	1174	1159	1163
7.5°	1169	1181	1139	1107	1106
10°	1157	1158	1089	1047	1037
12.5°	1142	1126	1038	975	960
15°	1122	1088	979	899	875
17.5°	1101	1049	916	816	783
20°	1077	1002	847	733	695
22.5°	1050	957	778	653	613
25°	1018	909	706	576	535
27.5°	987	860	637	508	466
30°	952	807	570	443	399
32.5°	917	753	508	381	348
35°	880	698	451	336	317
37.5°	842	644	397	306	289
40°	803	590	342	277	264
42.5°	763	537	304	253	241
45°	722	486	276	228	218
47.5°	678	435	249	207	198
50°	637	386	222	188	181
52.5°	593	338	200	171	165
55°	549	292	179	155	150
57.5°	506	248	159	140	136
60°	462	213	142	126	122
62.5°	417	185	126	113	109
65°	372	159	110	100	97
67.5°	325	134	96	88	86
70°	279	112	83	76	74
72.5°	234	91	70	65	63
75°	187	73	57	54	53
77.5°	146	57	46	44	43
80°	107	42	36	34	33
82.5°	71	29	26	25	24
85°	37	18	16	16	15
87.5°	12	8	8	8	7
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	20.45	21.92	20.82	22.23	22.55	15.26	16.72	15.62	17.04	17.35
	3H	22.78	24.10	23.16	24.43	24.79	16.90	18.22	17.28	18.55	18.91
	4H	23.68	24.91	24.08	25.26	25.64	17.54	18.77	17.94	19.12	19.50
	6H	24.34	25.48	24.75	25.85	26.24	18.03	19.17	18.45	19.54	19.93
	8H	24.55	25.63	24.97	26.02	26.42	18.20	19.29	18.63	19.68	20.08
	12H	24.66	25.70	25.09	26.08	26.51	18.32	19.36	18.75	19.74	20.17
4H	2H	20.47	21.70	20.87	22.05	22.43	15.97	17.21	16.37	17.56	17.94
	3H	22.88	23.90	23.29	24.30	24.71	17.82	18.84	18.23	19.25	19.65
	4H	23.81	24.73	24.24	25.15	25.59	18.57	19.49	19.00	19.91	20.35
	6H	24.59	25.39	25.04	25.83	26.29	19.18	19.98	19.64	20.43	20.89
	8H	24.86	25.61	25.32	26.05	26.52	19.40	20.15	19.86	20.59	21.06
	12H	25.03	25.70	25.52	26.18	26.65	19.56	20.23	20.04	20.71	21.18
8H	4H	23.80	24.55	24.27	25.00	25.46	18.95	19.69	19.41	20.14	20.61
	6H	24.61	25.23	25.11	25.72	26.20	19.68	20.30	20.18	20.79	21.27
	8H	24.91	25.47	25.43	25.98	26.46	19.98	20.53	20.49	21.04	21.53
	12H	25.14	25.63	25.65	26.12	26.69	20.22	20.71	20.73	21.20	21.77
12H	4H	23.78	24.45	24.27	24.93	25.40	19.00	19.67	19.49	20.15	20.62
	6H	24.58	25.14	25.10	25.65	26.14	19.77	20.32	20.28	20.83	21.32
	8H	24.92	25.41	25.43	25.90	26.47	20.13	20.61	20.64	21.11	21.67