

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: P1056064

Luminaire Tested: S124R3DR-S795D835-X4F0-XX-UDD-F-B

Issue Date: 7/25/2025

Test Information

Test Method: LM-79-2024
Report Number: P1056064
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2503-402-8)
Test Lab: INNOVATION CENTER
Issue Date: 7/25/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S124R3DR-S795D835-X4F0-XX-UDD-F-B
Description: DEFINE 4, BLACK 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS
CORE LIGHT ENGINE
Light Source: 3500K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

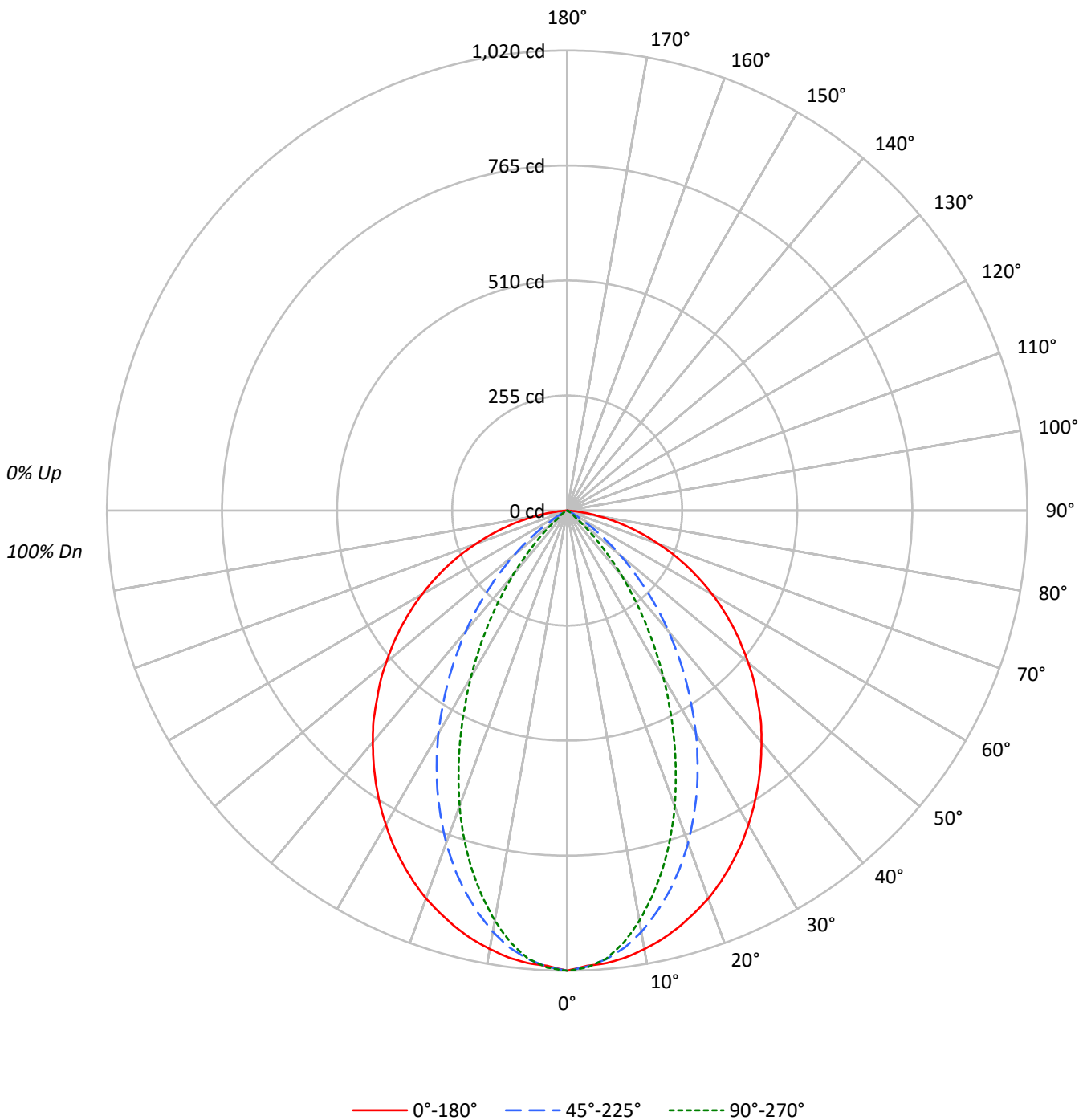
Lumens per Lamp: N/A
Luminaire Lumens: 1425.6 lumens
Efficiency: N/A
Efficacy: 54.0 lumens/watt
Spacing Criteria (0/90/45): 1.18 / 0.81 / 0.97
Luminous Opening: Rectangular (W 0.31' x L: 3.9' x H: 0')
CIE Type: Direct

Input Watts (W): 26.4
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	50	30	10	0	
RCR																						
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100				100
1	112	108	105	102	109	106	103	100	102	99	97	98	96	94	95	93	92	90				90
2	104	98	93	88	102	96	91	87	93	89	85	90	86	83	87	84	82	80				80
3	97	89	82	77	95	87	81	77	84	79	75	82	78	74	79	76	73	71				71
4	90	81	74	68	88	80	73	68	77	72	67	75	70	66	73	69	65	64				64
5	84	74	66	61	83	73	66	61	71	65	60	69	64	60	67	63	59	57				57
6	79	68	60	55	77	67	60	55	65	59	54	64	58	54	62	57	54	52				52
7	74	63	55	50	73	62	55	50	60	54	50	59	53	49	58	53	49	47				47
8	70	58	51	46	68	57	50	46	56	50	45	55	49	45	54	49	45	43				43
9	66	54	47	42	64	53	47	42	52	46	42	51	46	42	50	45	41	40				40
10	62	50	43	39	61	50	43	39	49	43	39	48	42	39	47	42	38	37				37

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	9018	9018	9018
5°	8937	8857	8849
10°	8861	8511	8286
15°	8751	8000	7506
20°	8609	7376	6558
25°	8419	6643	5473
30°	8208	5829	4349
35°	7976	4943	3238
40°	7733	4028	2158
45°	7465	3076	1188
50°	7207	2104	330
55°	6921	1141	216
60°	6578	354	124
65°	6151	230	63
70°	5558	103	26
75°	4782	34	0
80°	3615	0	0
85°	1522	0	0

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 7465 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	94.1	6.6
10°-20°	247.0	17.3
20°-30°	319.2	22.4
30°-40°	305.1	21.4
40°-50°	228.2	16.0
50°-60°	135.8	9.5
60°-70°	68.9	4.8
70°-80°	24.0	1.7
80°-90°	3.3	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°	660.4	46.3
0°-40°	965.5	67.7
0°-60°	1329.4	93.3
0°-90°	1425.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1425.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1020	1020	1020	1020	1020	
5°	1007	1015	998	993	997	95
15°	956	936	874	833	820	269
25°	863	803	681	591	561	397
35°	739	637	458	341	300	462
45°	597	458	246	131	95	462
55°	449	279	74	17	14	401
65°	294	113	11	4	3	291
75°	140	15	1	1	0	149
85°	15	0	0	0	0	25
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1020	1020	1020	1020	1020
2.5°	1010	1022	1012	1013	1014
5°	1007	1015	998	993	997
7.5°	999	1002	977	964	965
10°	987	984	948	926	923
12.5°	973	963	913	881	874
15°	956	936	874	833	820
17.5°	936	907	831	777	761
20°	915	875	784	717	697
22.5°	890	839	733	654	629
25°	863	803	681	591	561
27.5°	835	764	626	527	492
30°	804	723	571	462	426
32.5°	772	681	514	402	362
35°	739	637	458	341	300
37.5°	705	593	404	283	241
40°	670	548	349	228	187
42.5°	636	503	297	176	138
45°	597	458	246	131	95
47.5°	562	414	197	89	56
50°	524	367	153	52	24
52.5°	486	323	112	23	18
55°	449	279	74	17	14
57.5°	410	235	40	13	10
60°	372	192	20	10	7
62.5°	333	151	16	6	4
65°	294	113	11	4	3
67.5°	255	77	7	2	1
70°	215	47	4	1	1
72.5°	177	24	2	1	1
75°	140	15	1	1	0
77.5°	104	8	1	1	0
80°	71	3	0	0	0
82.5°	41	1	0	0	0
85°	15	0	0	0	0
87.5°	0	0	0	0	0
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	18.10	19.42	18.46	19.74	20.05	0.00	0.00	0.00	0.00	0.00
	3H	19.64	20.82	20.02	21.15	21.51	0.00	0.00	0.00	0.00	0.00
	4H	20.23	21.33	20.63	21.68	22.06	0.00	0.00	0.00	0.00	0.00
	6H	20.65	21.66	21.06	22.03	22.42	0.00	0.00	0.00	0.00	0.00
	8H	20.75	21.70	21.18	22.09	22.50	0.00	0.00	0.00	0.00	0.00
	12H	20.77	21.68	21.20	22.06	22.49	0.00	0.00	0.00	0.00	0.00
4H	2H	17.87	18.97	18.28	19.32	19.70	0.00	0.00	0.00	0.00	0.00
	3H	19.44	20.33	19.85	20.73	21.14	0.00	0.00	0.00	0.00	0.00
	4H	20.02	20.82	20.46	21.24	21.68	0.00	0.00	0.00	0.00	0.00
	6H	20.48	21.17	20.94	21.61	22.08	0.00	0.00	0.00	0.00	0.00
	8H	20.60	21.24	21.07	21.69	22.16	0.00	0.00	0.00	0.00	0.00
	12H	20.64	21.21	21.13	21.69	22.16	0.00	0.00	0.00	0.00	0.00
8H	4H	19.88	20.53	20.35	20.97	21.44	0.00	0.03	0.00	0.48	0.95
	6H	20.33	20.85	20.83	21.34	21.82	0.00	0.00	0.00	0.32	0.80
	8H	20.44	20.91	20.96	21.43	21.92	0.00	0.00	0.00	0.22	0.72
	12H	20.49	20.90	21.01	21.40	21.97	0.00	0.00	0.00	0.10	0.67
12H	4H	19.84	20.40	20.33	20.89	21.36	0.00	0.37	0.29	0.85	1.33
	6H	20.26	20.73	20.79	21.25	21.74	0.00	0.16	0.22	0.68	1.17
	8H	20.40	20.81	20.91	21.31	21.88	0.00	0.07	0.17	0.56	1.13