

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: P1056066

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

Issue Date: 7/25/2025

Test Information

Test Method: LM-79-2024
Report Number: P1056066
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2503-402-7)
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-W
Description: DEFINE 4, WHITE 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS
CORE LIGHT ENGINE
Light Source: 3500K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

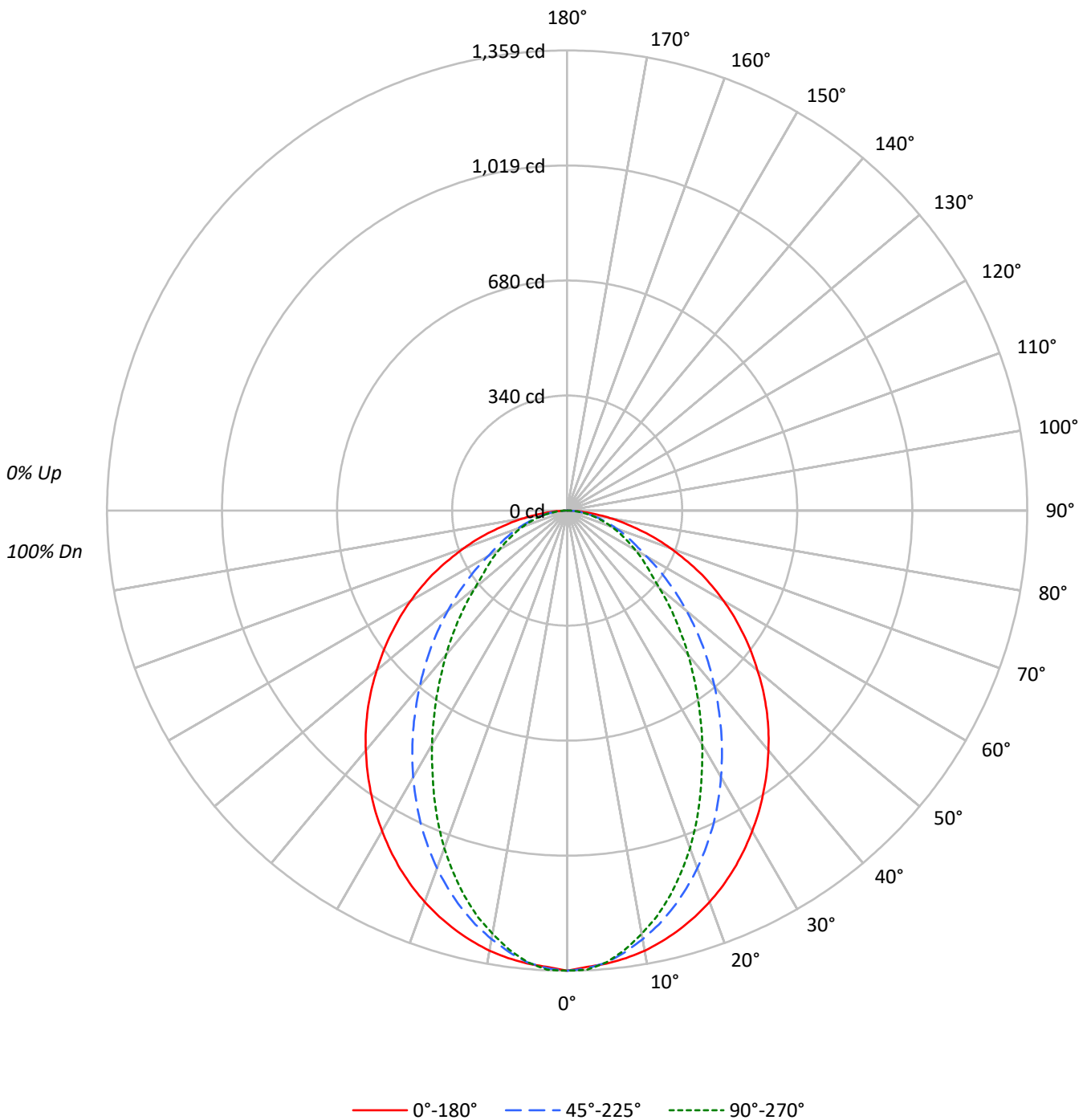
Lumens per Lamp: N/A
Luminaire Lumens: 2706.8 lumens
Efficiency: N/A
Efficacy: 102.5 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 0.95 / 1.12
Luminous Opening: Rectangular (W 0.31' x L: 3.9' x H: 0')
CIE Type: Direct

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	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	110	105	102	98	107	103	100	97	99	96	93	95	93	91	92	90	88	86
2	101	93	87	82	98	91	86	81	88	83	79	85	81	77	82	78	76	73
3	93	83	75	69	90	81	74	69	79	73	68	76	71	67	73	69	65	63
4	85	74	66	60	83	73	65	60	71	64	59	68	63	58	66	61	57	55
5	79	67	59	53	77	66	58	52	64	57	52	62	56	51	60	55	51	49
6	73	61	53	47	72	60	52	46	58	51	46	57	50	46	55	50	45	43
7	68	56	47	42	67	55	47	42	53	46	41	52	46	41	51	45	41	39
8	64	51	43	38	62	51	43	38	49	42	37	48	42	37	47	41	37	35
9	60	47	39	34	59	47	39	34	46	39	34	45	38	34	44	38	34	32
10	56	44	36	31	55	43	36	31	42	36	31	41	35	31	41	35	31	29

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	12015	12015	12015
5°	11919	11893	11884
10°	11851	11536	11393
15°	11725	11103	10764
20°	11573	10575	9983
25°	11385	9970	9073
30°	11159	9280	8147
35°	10923	8559	7253
40°	10676	7814	6417
45°	10415	7090	5639
50°	10096	6327	4869
55°	9788	5565	4424
60°	9443	4774	4102
65°	9017	4331	3828
70°	8376	4007	3619
75°	7584	3689	3416
80°	6619	3411	3208
85°	5072	3145	2942

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 10415 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	126.5	4.7
10°-20°	343.2	12.7
20°-30°	475.2	17.6
30°-40°	510.0	18.8
40°-50°	463.9	17.1
50°-60°	365.3	13.5
60°-70°	250.0	9.2
70°-80°	134.6	5.0
80°-90°	38.1	1.4
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°	944.9	34.9
0°-40°	1455.0	53.8
0°-60°	2284.1	84.4
0°-90°	2706.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2706.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1359	1359	1359	1359	1359	
5°	1343	1358	1340	1333	1339	127
15°	1281	1267	1213	1180	1176	361
25°	1167	1119	1022	948	930	537
35°	1012	933	793	697	672	633
45°	833	727	567	469	451	642
55°	635	514	361	291	287	568
65°	431	308	207	184	183	425
75°	222	135	108	99	100	237
85°	50	34	31	29	29	60
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1359	1359	1359	1359	1359
2.5°	1349	1365	1353	1355	1357
5°	1343	1358	1340	1333	1339
7.5°	1333	1343	1315	1302	1308
10°	1320	1322	1285	1266	1269
12.5°	1302	1297	1252	1225	1227
15°	1281	1267	1213	1180	1176
17.5°	1257	1234	1170	1128	1120
20°	1230	1199	1124	1070	1061
22.5°	1200	1160	1074	1010	997
25°	1167	1119	1022	948	930
27.5°	1131	1075	966	885	862
30°	1093	1029	909	822	798
32.5°	1054	982	851	759	734
35°	1012	933	793	697	672
37.5°	969	882	734	637	611
40°	925	831	677	577	556
42.5°	880	779	621	521	502
45°	833	727	567	469	451
47.5°	785	674	512	420	403
50°	734	621	460	372	354
52.5°	685	567	410	325	316
55°	635	514	361	291	287
57.5°	585	461	316	264	260
60°	534	409	270	236	232
62.5°	483	358	236	209	207
65°	431	308	207	184	183
67.5°	376	260	181	162	161
70°	324	212	155	140	140
72.5°	275	168	131	119	119
75°	222	135	108	99	100
77.5°	175	106	87	81	81
80°	130	79	67	62	63
82.5°	88	55	48	45	45
85°	50	34	31	29	29
87.5°	18	16	15	13	14
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	19.78	21.30	20.14	21.62	21.93	15.56	17.08	15.92	17.40	17.71
	3H	21.55	22.92	21.93	23.25	23.61	17.17	18.54	17.55	18.87	19.23
	4H	22.23	23.51	22.63	23.86	24.24	17.80	19.09	18.20	19.43	19.81
	6H	22.74	23.92	23.15	24.29	24.68	18.30	19.49	18.71	19.85	20.25
	8H	22.90	24.03	23.32	24.42	24.82	18.47	19.60	18.90	19.99	20.39
	12H	23.00	24.08	23.43	24.46	24.89	18.59	19.68	19.02	20.06	20.49
4H	2H	19.87	21.16	20.27	21.51	21.89	16.28	17.56	16.67	17.91	18.29
	3H	21.82	22.89	22.23	23.29	23.69	18.08	19.15	18.49	19.55	19.95
	4H	22.57	23.54	23.01	23.95	24.39	18.82	19.78	19.25	20.20	20.64
	6H	23.21	24.05	23.67	24.49	24.95	19.44	20.28	19.89	20.72	21.18
	8H	23.43	24.21	23.89	24.66	25.13	19.65	20.44	20.12	20.88	21.35
	12H	23.58	24.29	24.07	24.76	25.23	19.82	20.52	20.30	21.00	21.47
8H	4H	22.63	23.42	23.10	23.86	24.33	19.21	19.99	19.67	20.44	20.90
	6H	23.33	23.98	23.83	24.47	24.95	19.94	20.59	20.44	21.08	21.56
	8H	23.60	24.18	24.11	24.69	25.18	20.23	20.81	20.74	21.32	21.81
	12H	23.82	24.33	24.33	24.82	25.39	20.47	20.99	20.98	21.48	22.05
12H	4H	22.62	23.33	23.11	23.80	24.27	19.26	19.97	19.75	20.44	20.91
	6H	23.32	23.91	23.84	24.42	24.91	20.02	20.61	20.54	21.12	21.60
	8H	23.63	24.15	24.14	24.64	25.20	20.37	20.89	20.88	21.38	21.94