

Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269



Scaled data based on original data using
LM-79-2019 Approved Method: Electrical and Photometric Measurements of Solid-
State Lighting Products

Test Report Prepared for
Cooper Lighting Solutions

Brand: NEO-RAY

Report Number: P982511

Luminaire Tested: DTR3-DR-4F0-065D-930-FLL-D

Issue Date: 1/22/2025

Test Information

Test Method: LM-79-2019
Report Number: P982511
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2501-325-1)
Test Lab: INNOVATION CENTER
Issue Date: 1/22/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: DTR3-DR-4F0-065D-930-FLL-D
Description: Define Torrent LED Luminaire
Light Source: -
Ballast/Driver: -

Summary

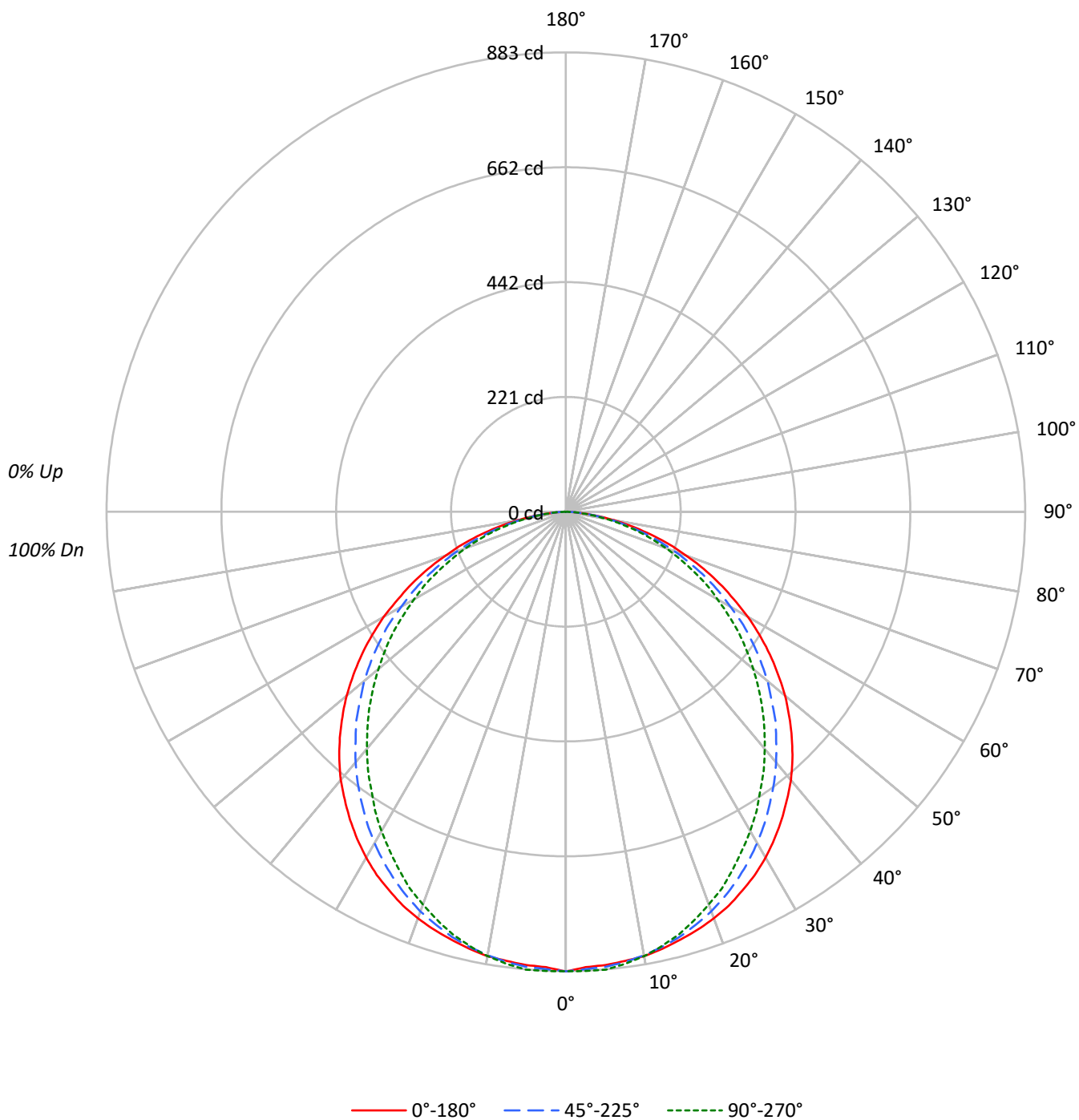
Lumens per Lamp: N/A
Luminaire Lumens: 2440.3 lumens
Efficiency: N/A
Efficacy: 61.6 lumens/watt
Spacing Criteria (0/90/45): 1.29 / 1.2 / 1.35
Luminous Opening: Rectangular (W 0.25' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 39.6
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: 0.9909
Total Harmonic Distortion (THDi): 8.21
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	109	104	100	96	106	102	98	95	98	95	92		94	91	89		90	88	86	84
2	99	91	84	78	96	89	83	77	85	80	76		82	78	74		79	76	72	70
3	90	80	72	65	88	78	71	65	75	69	64		73	67	62		70	65	61	59
4	83	71	62	55	80	69	61	55	67	60	54		65	58	53		62	57	53	51
5	76	63	54	48	74	62	54	47	60	53	47		58	52	46		56	50	46	44
6	70	57	48	42	68	56	48	41	54	47	41		53	46	41		51	45	40	38
7	65	52	43	37	63	51	43	37	49	42	36		48	41	36		47	40	36	34
8	61	47	39	33	59	46	38	33	45	38	33		44	37	32		43	37	32	30
9	57	43	35	30	55	43	35	29	42	34	29		40	34	29		39	33	29	27
10	53	40	32	27	52	39	32	27	38	31	27		37	31	26		37	31	26	25

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	9509	9509	9509
5°	9448	9487	9545
10°	9481	9461	9481
15°	9487	9428	9367
20°	9527	9364	9200
25°	9539	9265	9011
30°	9541	9142	8810
35°	9500	8987	8566
40°	9459	8834	8358
45°	9353	8675	8133
50°	9215	8468	7874
55°	8991	8222	7619
60°	8704	7860	7246
65°	8301	7529	6895
70°	7736	7009	6445
75°	7037	6297	5852
80°	5852	5300	4854
85°	3964	3964	3520

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 9353 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	83.6	3.4
10°-20°	239.0	9.8
20°-30°	360.1	14.8
30°-40°	429.6	17.6
40°-50°	440.9	18.1
50°-60°	393.1	16.1
60°-70°	293.4	12.0
70°-80°	162.1	6.6
80°-90°	38.5	1.6
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°	682.6	28.0
0°-40°	1112.2	45.6
0°-60°	1946.3	79.8
0°-90°	2440.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2440.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	883	883	883	883	883	
5°	874	885	878	878	883	83
15°	851	858	846	839	841	241
25°	803	803	780	760	759	370
35°	723	714	684	661	652	452
45°	614	602	570	543	534	474
55°	479	467	438	415	406	428
65°	326	315	296	278	271	322
75°	169	162	151	144	141	179
85°	32	32	32	30	28	41
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	883.4	883.4	883.4	883.4	883.4
2.5°	876.2	886.9	879.8	881.6	883.4
5°	874.4	885.1	878.0	878.0	883.4
7.5°	870.8	881.6	872.6	870.8	876.2
10°	867.4	876.2	865.6	862.0	867.4
12.5°	860.2	867.4	856.6	851.3	854.8
15°	851.3	858.4	846.0	838.8	840.6
17.5°	842.4	847.8	831.7	822.8	822.8
20°	831.7	833.5	817.5	805.0	803.2
22.5°	819.2	821.0	799.7	783.7	783.7
25°	803.2	803.2	780.1	760.5	758.7
27.5°	787.1	783.7	758.7	739.1	733.8
30°	767.6	762.3	735.5	714.2	708.8
32.5°	746.2	739.1	710.6	687.4	682.1
35°	723.0	714.2	683.9	660.7	651.9
37.5°	698.1	687.4	657.1	632.3	625.1
40°	673.2	660.7	628.7	603.7	594.8
42.5°	644.7	632.3	598.4	573.4	564.6
45°	614.4	602.0	569.9	543.2	534.3
47.5°	582.4	569.9	536.1	511.1	502.3
50°	550.3	536.1	505.7	479.1	470.2
52.5°	514.7	502.3	471.9	447.0	438.1
55°	479.1	466.6	438.1	415.0	406.0
57.5°	441.6	431.0	404.3	379.3	370.5
60°	404.3	391.8	365.1	345.5	336.6
62.5°	363.3	352.7	331.3	311.6	306.3
65°	325.9	315.2	295.6	277.8	270.7
67.5°	286.8	277.8	258.2	244.0	236.9
70°	245.8	238.7	222.7	210.1	204.8
72.5°	208.3	199.5	187.0	176.3	172.8
75°	169.2	162.0	151.4	144.2	140.7
77.5°	130.0	124.6	117.6	112.2	108.6
80°	94.4	89.1	85.5	81.9	78.3
82.5°	60.5	57.0	57.0	53.5	51.7
85°	32.1	32.1	32.1	30.3	28.5
87.5°	10.7	12.4	12.4	10.7	10.7
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	19.93	21.56	20.29	21.87	22.19	18.98	20.61	19.35	20.93	21.24
	3H	21.71	23.18	22.08	23.51	23.87	20.70	22.17	21.07	22.50	22.86
	4H	22.35	23.74	22.75	24.08	24.46	21.32	22.70	21.72	23.05	23.43
	6H	22.77	24.06	23.19	24.42	24.81	21.73	23.02	22.14	23.38	23.77
	8H	22.89	24.11	23.31	24.50	24.90	21.84	23.07	22.27	23.46	23.86
	12H	22.94	24.12	23.37	24.50	24.93	21.91	23.08	22.33	23.46	23.89
4H	2H	20.45	21.84	20.85	22.19	22.56	19.70	21.09	20.10	21.44	21.81
	3H	22.45	23.61	22.86	24.01	24.41	21.62	22.78	22.03	23.18	23.58
	4H	23.22	24.27	23.65	24.68	25.11	22.35	23.40	22.78	23.81	24.25
	6H	23.76	24.68	24.21	25.12	25.57	22.88	23.79	23.33	24.23	24.69
	8H	23.91	24.77	24.37	25.21	25.67	23.02	23.88	23.48	24.32	24.79
	12H	24.00	24.77	24.48	25.24	25.71	23.11	23.88	23.59	24.36	24.83
8H	4H	23.45	24.31	23.91	24.75	25.22	22.68	23.54	23.14	23.98	24.45
	6H	24.09	24.80	24.59	25.29	25.77	23.31	24.02	23.80	24.51	24.99
	8H	24.30	24.93	24.80	25.44	25.93	23.52	24.15	24.02	24.66	25.15
	12H	24.44	25.00	24.94	25.49	26.05	23.66	24.22	24.17	24.71	25.27
12H	4H	23.47	24.24	23.95	24.71	25.18	22.72	23.49	23.20	23.96	24.43
	6H	24.12	24.76	24.63	25.27	25.75	23.36	24.00	23.87	24.51	24.99
	8H	24.37	24.93	24.88	25.42	25.99	23.62	24.18	24.12	24.67	25.23