

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: P982506

Luminaire Tested: DTR3-DR-4F0-035D-927-FLL-D

Issue Date: 1/22/2025

Test Information

Test Method: LM-79-2019
Report Number: P982506
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-4F0-035D-927-FLL-D
Description: Define Torrent LED Luminaire
Light Source: -
Ballast/Driver: -

Summary

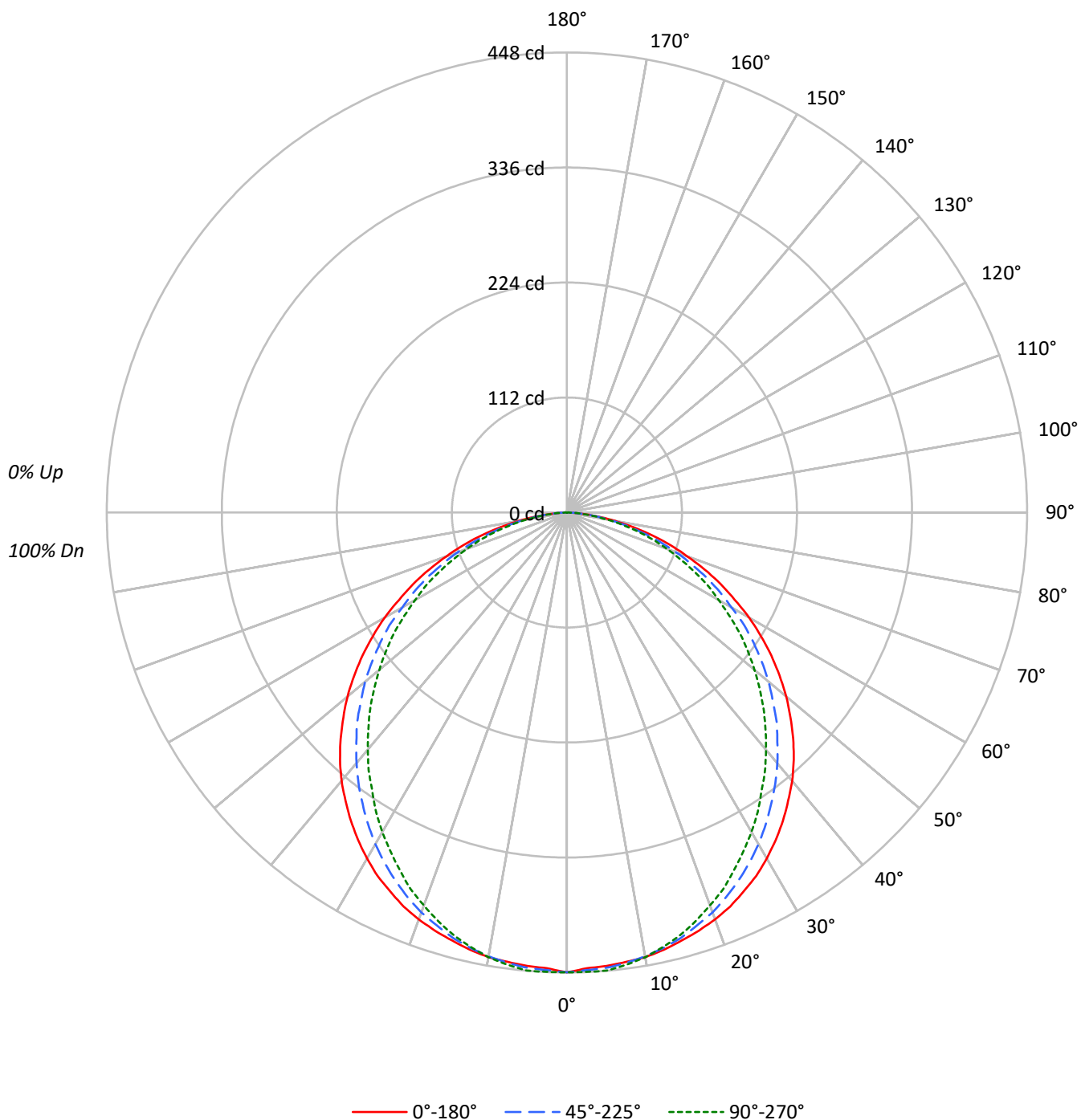
Lumens per Lamp: N/A
Luminaire Lumens: 1237.1 lumens
Efficiency: N/A
Efficacy: 62.2 lumens/watt
Spacing Criteria (0/90/45): 1.29 / 1.2 / 1.35
Luminous Opening: Rectangular (W 0.25' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 19.9
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: 0.9842
Total Harmonic Distortion (THDi): 8.81
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
RW	70	50	30	10	70	50	30	10	50	30	10		50	30	10		50
RCR																	
0	119	119	119	119	116	116	116	116	111	111	111		106	106	106		102
1	109	104	100	96	106	102	98	95	98	95	92		94	91	89		90
2	99	91	84	78	96	89	83	77	85	80	76		82	78	74		79
3	90	80	72	65	88	78	71	65	75	69	64		73	67	62		70
4	83	71	62	55	80	69	61	55	67	60	54		65	58	53		62
5	76	63	54	48	74	62	54	47	60	53	47		58	52	46		56
6	70	57	48	42	68	56	48	41	54	47	41		53	46	41		51
7	65	52	43	37	63	51	43	37	49	42	36		48	41	36		47
8	61	47	39	33	59	46	38	33	45	38	33		44	37	32		43
9	57	43	35	30	55	43	35	29	42	34	29		40	34	29		39
10	53	40	32	27	52	39	32	27	38	31	27		37	31	26		37

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	4820	4820	4820
5°	4790	4809	4838
10°	4806	4796	4806
15°	4810	4778	4748
20°	4829	4747	4664
25°	4836	4696	4568
30°	4836	4635	4466
35°	4817	4556	4342
40°	4796	4478	4236
45°	4742	4398	4124
50°	4670	4294	3992
55°	4558	4168	3862
60°	4413	3985	3673
65°	4208	3818	3497
70°	3921	3553	3267
75°	3568	3190	2969
80°	2963	2684	2461
85°	2013	2013	1778

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
Vertical Angle: 45°
Luminance: 4742 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	42.4	3.4
10°-20°	121.1	9.8
20°-30°	182.5	14.8
30°-40°	217.8	17.6
40°-50°	223.5	18.1
50°-60°	199.3	16.1
60°-70°	148.7	12.0
70°-80°	82.2	6.6
80°-90°	19.5	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°	346.1	28.0
0°-40°	563.8	45.6
0°-60°	986.7	79.8
0°-90°	1237.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1237.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	448	448	448	448	448	
5°	443	449	445	445	448	42
15°	432	435	429	425	426	122
25°	407	407	395	386	385	188
35°	367	362	347	335	330	229
45°	312	305	289	275	271	240
55°	243	237	222	210	206	217
65°	165	160	150	141	137	163
75°	86	82	77	73	71	91
85°	16	16	16	15	14	21
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	447.8	447.8	447.8	447.8	447.8
2.5°	444.2	449.6	446.0	446.9	447.8
5°	443.3	448.7	445.1	445.1	447.8
7.5°	441.4	446.9	442.4	441.4	444.2
10°	439.7	444.2	438.8	437.0	439.7
12.5°	436.1	439.7	434.3	431.6	433.3
15°	431.6	435.1	428.8	425.2	426.1
17.5°	427.0	429.8	421.6	417.2	417.2
20°	421.6	422.5	414.4	408.1	407.2
22.5°	415.3	416.2	405.4	397.3	397.3
25°	407.2	407.2	395.4	385.5	384.6
27.5°	399.1	397.3	384.6	374.7	372.0
30°	389.1	386.4	372.9	362.1	359.3
32.5°	378.3	374.7	360.2	348.5	345.8
35°	366.6	362.1	346.7	335.0	330.4
37.5°	353.9	348.5	333.2	320.5	316.9
40°	341.3	335.0	318.7	306.1	301.5
42.5°	326.9	320.5	303.3	290.7	286.2
45°	311.5	305.1	288.9	275.4	270.9
47.5°	295.2	288.9	271.8	259.1	254.6
50°	278.9	271.8	256.4	242.9	238.4
52.5°	260.9	254.6	239.2	226.6	222.1
55°	242.9	236.6	222.1	210.3	205.8
57.5°	223.9	218.5	205.0	192.3	187.8
60°	205.0	198.6	185.1	175.1	170.6
62.5°	184.1	178.8	168.0	158.0	155.2
65°	165.2	159.8	149.9	140.8	137.3
67.5°	145.4	140.8	131.0	123.7	120.0
70°	124.6	121.0	112.9	106.6	103.8
72.5°	105.6	101.1	94.8	89.3	87.6
75°	85.8	82.2	76.7	73.2	71.4
77.5°	65.9	63.2	59.6	56.9	55.1
80°	47.8	45.1	43.3	41.5	39.7
82.5°	30.7	28.9	28.9	27.1	26.2
85°	16.3	16.3	16.3	15.3	14.4
87.5°	5.5	6.3	6.3	5.5	5.5
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	17.57	19.20	17.93	19.51	19.83	16.62	18.25	16.99	18.57	18.88
	3H	19.35	20.82	19.72	21.15	21.51	18.34	19.81	18.71	20.14	20.50
	4H	19.99	21.38	20.39	21.72	22.10	18.96	20.34	19.36	20.69	21.07
	6H	20.41	21.70	20.83	22.06	22.45	19.37	20.66	19.78	21.02	21.41
	8H	20.53	21.75	20.95	22.14	22.54	19.49	20.71	19.91	21.10	21.50
	12H	20.58	21.76	21.01	22.14	22.57	19.55	20.72	19.97	21.10	21.53
4H	2H	18.09	19.48	18.49	19.83	20.20	17.34	18.73	17.74	19.08	19.45
	3H	20.09	21.25	20.50	21.65	22.05	19.26	20.42	19.67	20.82	21.22
	4H	20.86	21.91	21.29	22.32	22.76	19.99	21.04	20.42	21.45	21.89
	6H	21.40	22.32	21.85	22.76	23.21	20.52	21.43	20.97	21.87	22.33
	8H	21.55	22.41	22.01	22.85	23.31	20.66	21.52	21.12	21.96	22.43
	12H	21.64	22.41	22.12	22.88	23.35	20.76	21.52	21.24	22.00	22.47
8H	4H	21.09	21.95	21.55	22.39	22.86	20.32	21.18	20.78	21.62	22.09
	6H	21.73	22.44	22.23	22.93	23.41	20.95	21.66	21.45	22.15	22.63
	8H	21.94	22.57	22.44	23.08	23.57	21.16	21.79	21.66	22.30	22.79
	12H	22.08	22.64	22.58	23.13	23.69	21.30	21.86	21.81	22.35	22.91
12H	4H	21.11	21.88	21.59	22.35	22.82	20.36	21.13	20.84	21.60	22.07
	6H	21.76	22.40	22.27	22.91	23.39	21.00	21.64	21.51	22.15	22.63
	8H	22.01	22.57	22.52	23.06	23.62	21.26	21.82	21.76	22.31	22.87