

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: P982509

Luminaire Tested: DTR3-DR-4F0-035D-940-FLL-D

Issue Date: 1/22/2025

Test Information

Test Method: LM-79-2019
Report Number: P982509
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-940-FLL-D
Description: Define Torrent LED Luminaire
Light Source: -
Ballast/Driver: -

Summary

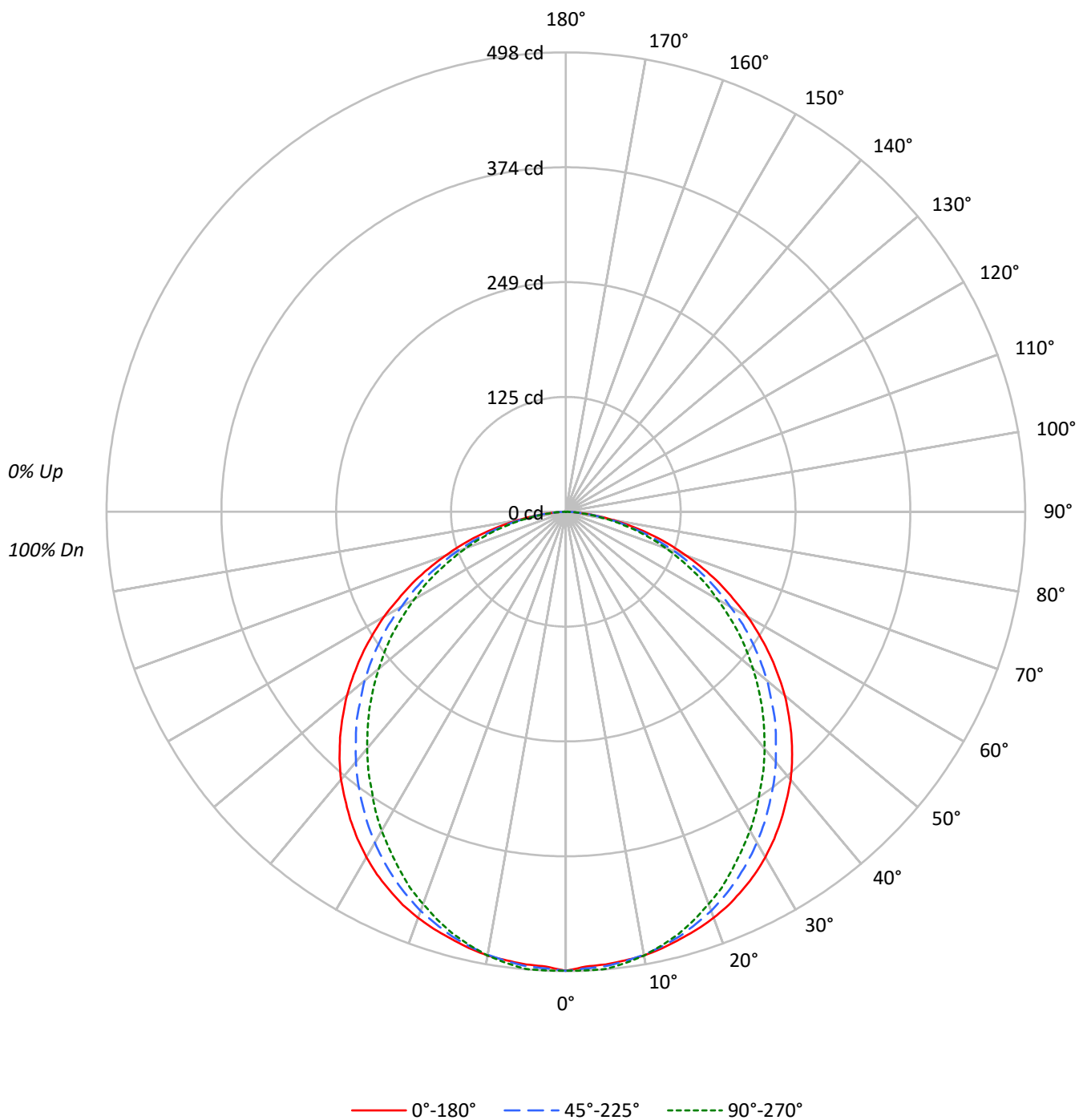
Lumens per Lamp: N/A
Luminaire Lumens: 1374.5 lumens
Efficiency: N/A
Efficacy: 69.1 lumens/watt
Spacing Criteria (0/90/45): 1.29 / 1.2 / 1.35
Luminous Opening: Rectangular (W 0.25' x L: 4' x H: 0')
CIE Type: Direct

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°	5356	5356	5356
5°	5323	5343	5377
10°	5339	5329	5339
15°	5343	5310	5277
20°	5367	5275	5183
25°	5374	5219	5075
30°	5374	5149	4963
35°	5352	5062	4825
40°	5328	4976	4709
45°	5268	4886	4582
50°	5191	4771	4434
55°	5063	4632	4292
60°	4902	4426	4082
65°	4676	4241	3884
70°	4356	3947	3629
75°	3963	3548	3298
80°	3298	2982	2740
85°	2235	2235	1976

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 5268 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	47.1	3.4
10°-20°	134.6	9.8
20°-30°	202.8	14.8
30°-40°	242.0	17.6
40°-50°	248.4	18.1
50°-60°	221.5	16.1
60°-70°	165.3	12.0
70°-80°	91.3	6.6
80°-90°	21.7	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°	384.5	28.0
0°-40°	626.5	45.6
0°-60°	1096.3	79.8
0°-90°	1374.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1374.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	498	498	498	498	498	
5°	493	499	494	494	498	47
15°	480	484	476	472	474	136
25°	452	452	439	428	427	209
35°	407	402	385	372	367	255
45°	346	339	321	306	301	267
55°	270	263	247	234	229	241
65°	184	178	166	156	152	181
75°	95	91	85	81	79	101
85°	18	18	18	17	16	23
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	497.6	497.6	497.6	497.6	497.6
2.5°	493.5	499.5	495.6	496.5	497.6
5°	492.6	498.6	494.5	494.5	497.6
7.5°	490.6	496.5	491.5	490.6	493.5
10°	488.5	493.5	487.6	485.5	488.5
12.5°	484.6	488.5	482.5	479.5	481.5
15°	479.5	483.5	476.5	472.5	473.5
17.5°	474.5	477.5	468.5	463.5	463.5
20°	468.5	469.5	460.5	453.4	452.5
22.5°	461.5	462.4	450.4	441.3	441.3
25°	452.5	452.5	439.4	428.4	427.3
27.5°	443.4	441.3	427.3	416.3	413.3
30°	432.4	429.4	414.3	402.3	399.3
32.5°	420.4	416.3	400.3	387.2	384.2
35°	407.3	402.3	385.2	372.2	367.2
37.5°	393.2	387.2	370.2	356.1	352.1
40°	379.2	372.2	354.1	340.0	335.1
42.5°	363.1	356.1	337.0	323.0	318.0
45°	346.1	339.1	321.0	306.0	301.0
47.5°	328.0	321.0	301.9	287.9	282.9
50°	310.0	301.9	284.9	269.8	264.8
52.5°	289.9	282.9	265.9	251.8	246.8
55°	269.8	262.9	246.8	233.8	228.7
57.5°	248.8	242.8	227.7	213.7	208.6
60°	227.7	220.7	205.6	194.6	189.6
62.5°	204.7	198.6	186.6	175.6	172.6
65°	183.6	177.6	166.5	156.5	152.5
67.5°	161.6	156.5	145.5	137.5	133.4
70°	138.4	134.4	125.4	118.3	115.3
72.5°	117.4	112.3	105.3	99.3	97.3
75°	95.3	91.3	85.3	81.2	79.3
77.5°	73.2	70.2	66.2	63.2	61.2
80°	53.2	50.2	48.1	46.1	44.2
82.5°	34.1	32.1	32.1	30.1	29.1
85°	18.1	18.1	18.1	17.0	16.0
87.5°	6.0	7.1	7.1	6.0	6.0
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	17.94	19.57	18.30	19.88	20.19	16.99	18.62	17.35	18.93	19.25
	3H	19.71	21.19	20.09	21.51	21.87	18.70	20.18	19.08	20.50	20.86
	4H	20.36	21.74	20.75	22.09	22.46	19.32	20.71	19.72	21.06	21.43
	6H	20.78	22.07	21.19	22.43	22.82	19.74	21.02	20.15	21.39	21.78
	8H	20.89	22.12	21.32	22.51	22.91	19.85	21.08	20.28	21.47	21.87
	12H	20.95	22.13	21.38	22.51	22.94	19.91	21.09	20.34	21.47	21.90
4H	2H	18.46	19.85	18.86	20.19	20.57	17.71	19.09	18.11	19.44	19.82
	3H	20.46	21.62	20.86	22.01	22.41	19.62	20.78	20.03	21.18	21.58
	4H	21.22	22.27	21.65	22.69	23.12	20.36	21.41	20.79	21.82	22.26
	6H	21.77	22.68	22.22	23.12	23.58	20.88	21.80	21.34	22.24	22.69
	8H	21.92	22.77	22.38	23.22	23.68	21.03	21.89	21.49	22.33	22.79
	12H	22.01	22.77	22.49	23.25	23.72	21.12	21.89	21.60	22.37	22.83
8H	4H	21.46	22.32	21.92	22.76	23.22	20.69	21.55	21.15	21.99	22.45
	6H	22.10	22.81	22.59	23.30	23.77	21.32	22.03	21.81	22.52	22.99
	8H	22.30	22.94	22.81	23.45	23.93	21.52	22.16	22.03	22.66	23.15
	12H	22.44	23.01	22.95	23.50	24.06	21.66	22.23	22.17	22.72	23.28
12H	4H	21.48	22.24	21.96	22.72	23.19	20.72	21.49	21.20	21.97	22.44
	6H	22.13	22.77	22.64	23.27	23.76	21.37	22.01	21.88	22.51	23.00
	8H	22.38	22.94	22.88	23.43	23.99	21.62	22.19	22.13	22.68	23.24