

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: P995714

Luminaire Tested: DTR3-DS-4F0-035D-930-FLL-D

Issue Date: 1/22/2025

Test Information

Test Method: LM-79-2019
Report Number: P995714
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-DS-4F0-035D-930-FLL-D
Description: Define Torrent LED Luminaire
Light Source: -
Ballast/Driver: -

Summary

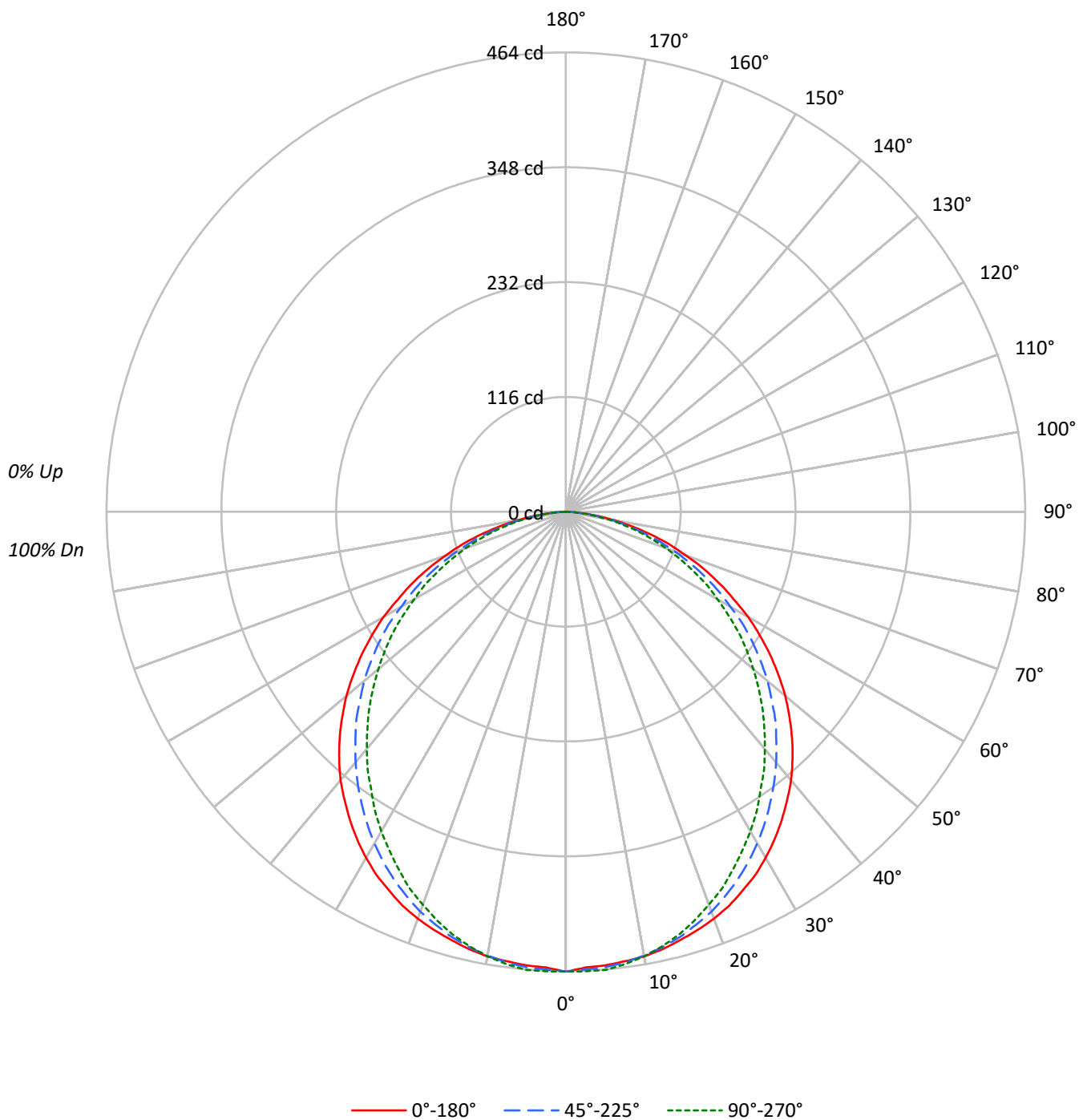
Lumens per Lamp: N/A
Luminaire Lumens: 1283.2 lumens
Efficiency: N/A
Efficacy: 64.5 lumens/watt
Spacing Criteria (0/90/45): 1.29 / 1.2 / 1.35
Luminous Opening: Rectangular (W 0.25' x L: 4' x H: 0')
CIE Type: Direct

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°	5000	5000	5000
5°	4968	4989	5019
10°	4984	4974	4984
15°	4989	4957	4925
20°	5009	4924	4837
25°	5016	4872	4739
30°	5016	4806	4632
35°	4996	4725	4504
40°	4974	4644	4394
45°	4918	4562	4276
50°	4846	4454	4140
55°	4727	4324	4007
60°	4577	4133	3810
65°	4363	3958	3624
70°	4069	3682	3389
75°	3701	3310	3078
80°	3075	2783	2554
85°	2087	2087	1853

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 4918 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	44.0	3.4
10°-20°	125.7	9.8
20°-30°	189.3	14.8
30°-40°	225.9	17.6
40°-50°	231.9	18.1
50°-60°	206.7	16.1
60°-70°	154.3	12.0
70°-80°	85.2	6.6
80°-90°	20.2	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°	358.9	28.0
0°-40°	584.8	45.6
0°-60°	1023.4	79.8
0°-90°	1283.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1283.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	464	464	464	464	464	
5°	460	465	462	462	464	44
15°	448	451	445	441	442	127
25°	422	422	410	400	399	195
35°	380	376	360	348	343	238
45°	323	316	300	286	281	249
55°	252	245	230	218	214	225
65°	171	166	155	146	142	169
75°	89	85	80	76	74	94
85°	17	17	17	16	15	22
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	464.5	464.5	464.5	464.5	464.5
2.5°	460.7	466.4	462.6	463.6	464.5
5°	459.8	465.4	461.7	461.7	464.5
7.5°	457.9	463.6	458.9	457.9	460.7
10°	456.0	460.7	455.1	453.3	456.0
12.5°	452.4	456.0	450.5	447.7	449.5
15°	447.7	451.4	444.8	441.1	442.0
17.5°	442.9	445.8	437.3	432.7	432.7
20°	437.3	438.2	429.9	423.3	422.3
22.5°	430.8	431.7	420.4	412.1	412.1
25°	422.3	422.3	410.2	399.9	399.0
27.5°	414.0	412.1	399.0	388.6	385.8
30°	403.6	400.9	386.7	375.5	372.7
32.5°	392.4	388.6	373.7	361.5	358.7
35°	380.2	375.5	359.6	347.5	342.8
37.5°	367.1	361.5	345.6	332.4	328.8
40°	354.0	347.5	330.5	317.5	312.7
42.5°	339.0	332.4	314.6	301.5	296.8
45°	323.1	316.5	299.7	285.6	280.9
47.5°	306.3	299.7	281.9	268.8	264.1
50°	289.4	281.9	266.0	251.9	247.2
52.5°	270.7	264.1	248.2	235.1	230.4
55°	251.9	245.3	230.4	218.2	213.5
57.5°	232.3	226.6	212.6	199.5	194.8
60°	212.6	206.0	192.0	181.7	177.0
62.5°	191.0	185.5	174.2	163.9	161.1
65°	171.3	165.8	155.4	146.1	142.3
67.5°	150.8	146.1	135.8	128.3	124.6
70°	129.3	125.5	117.0	110.5	107.7
72.5°	109.6	104.9	98.3	92.7	90.8
75°	89.0	85.2	79.6	75.9	74.0
77.5°	68.3	65.5	61.9	59.0	57.1
80°	49.6	46.8	44.9	43.1	41.2
82.5°	31.8	29.9	29.9	28.1	27.1
85°	16.9	16.9	16.9	15.9	15.0
87.5°	5.6	6.6	6.6	5.6	5.6
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	17.70	19.33	18.06	19.64	19.95	16.75	18.38	17.12	18.69	19.01
	3H	19.47	20.95	19.85	21.27	21.63	18.46	19.94	18.84	20.26	20.62
	4H	20.12	21.50	20.51	21.85	22.23	19.09	20.47	19.48	20.82	21.20
	6H	20.54	21.83	20.95	22.19	22.58	19.50	20.79	19.91	21.15	21.54
	8H	20.65	21.88	21.08	22.27	22.67	19.61	20.84	20.04	21.23	21.63
	12H	20.71	21.89	21.14	22.27	22.70	19.67	20.85	20.10	21.23	21.66
4H	2H	18.22	19.60	18.62	19.95	20.33	17.47	18.85	17.87	19.20	19.58
	3H	20.22	21.38	20.63	21.77	22.17	19.39	20.55	19.79	20.94	21.34
	4H	20.98	22.03	21.41	22.45	22.88	20.12	21.17	20.55	21.58	22.02
	6H	21.53	22.44	21.98	22.88	23.34	20.64	21.56	21.10	22.00	22.46
	8H	21.68	22.53	22.14	22.97	23.44	20.79	21.65	21.25	22.09	22.55
	12H	21.76	22.53	22.24	23.01	23.48	20.88	21.65	21.36	22.13	22.60
8H	4H	21.22	22.08	21.68	22.52	22.98	20.45	21.31	20.91	21.75	22.21
	6H	21.86	22.57	22.35	23.06	23.53	21.08	21.79	21.57	22.28	22.75
	8H	22.06	22.70	22.57	23.21	23.69	21.28	21.92	21.79	22.43	22.91
	12H	22.20	22.77	22.71	23.26	23.82	21.43	21.99	21.93	22.48	23.04
12H	4H	21.24	22.01	21.72	22.48	22.95	20.48	21.25	20.96	21.73	22.20
	6H	21.89	22.53	22.40	23.03	23.52	21.13	21.77	21.64	22.27	22.76
	8H	22.14	22.70	22.64	23.19	23.75	21.38	21.95	21.89	22.44	23.00