

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: P982517

Luminaire Tested: DTR3-DR-4F0-100D-940-FLL-D

Issue Date: 1/22/2025

Test Information

Test Method: LM-79-2019
Report Number: P982517
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-4F0-100D-940-FLL-D
Description: Define Torrent LED Luminaire
Light Source: -
Ballast/Driver: -

Summary

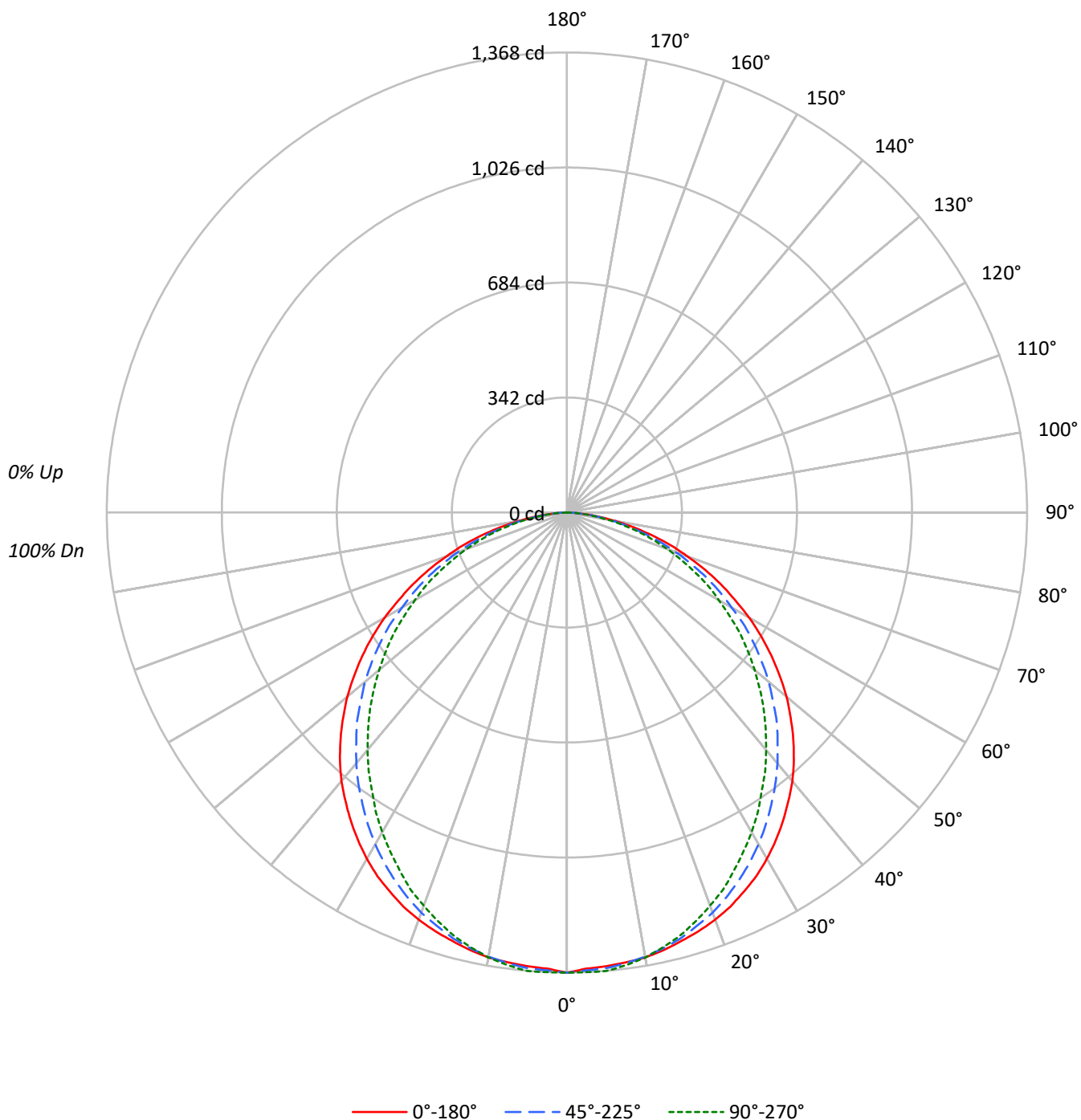
Lumens per Lamp: N/A
Luminaire Lumens: 3779.9 lumens
Efficiency: N/A
Efficacy: 64.4 lumens/watt
Spacing Criteria (0/90/45): 1.29 / 1.2 / 1.35
Luminous Opening: Rectangular (W 0.25' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 58.7
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: 0.9935
Total Harmonic Distortion (THDi): 7.68
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°	14728	14728	14728
5°	14635	14695	14785
10°	14683	14654	14683
15°	14695	14603	14510
20°	14757	14504	14251
25°	14776	14349	13957
30°	14777	14160	13646
35°	14717	13920	13268
40°	14651	13683	12947
45°	14487	13438	12598
50°	14274	13120	12196
55°	13925	12735	11804
60°	13481	12174	11225
65°	12857	11663	10679
70°	11981	10851	9986
75°	10900	9753	9062
80°	9062	8213	7525
85°	6126	6126	5459

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 14487 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	129.5	3.4
10°-20°	370.2	9.8
20°-30°	557.7	14.8
30°-40°	665.4	17.6
40°-50°	683.0	18.1
50°-60°	608.9	16.1
60°-70°	454.5	12.0
70°-80°	251.1	6.6
80°-90°	59.6	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°	1057.4	28.0
0°-40°	1722.8	45.6
0°-60°	3014.7	79.8
0°-90°	3779.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3779.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1368	1368	1368	1368	1368	
5°	1354	1371	1360	1360	1368	129
15°	1319	1330	1310	1299	1302	373
25°	1244	1244	1208	1178	1175	574
35°	1120	1106	1059	1023	1010	701
45°	952	932	883	841	828	734
55°	742	723	679	643	629	663
65°	505	488	458	430	419	499
75°	262	251	234	224	218	277
85°	50	50	50	47	44	63
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1368.3	1368.3	1368.3	1368.3	1368.3
2.5°	1357.3	1373.8	1362.7	1365.6	1368.3
5°	1354.5	1371.0	1360.0	1360.0	1368.3
7.5°	1349.0	1365.6	1351.7	1349.0	1357.3
10°	1343.4	1357.3	1340.7	1335.2	1343.4
12.5°	1332.4	1343.4	1327.0	1318.7	1324.1
15°	1318.7	1329.7	1310.4	1299.3	1302.1
17.5°	1304.8	1313.1	1288.3	1274.5	1274.5
20°	1288.3	1291.1	1266.2	1246.9	1244.1
22.5°	1269.0	1271.7	1238.7	1213.8	1213.8
25°	1244.1	1244.1	1208.2	1177.9	1175.2
27.5°	1219.4	1213.8	1175.2	1144.9	1136.6
30°	1188.9	1180.7	1139.3	1106.2	1097.9
32.5°	1155.9	1144.9	1100.7	1064.9	1056.6
35°	1120.0	1106.2	1059.3	1023.4	1009.7
37.5°	1081.4	1064.9	1018.0	979.3	968.3
40°	1042.7	1023.4	973.8	935.2	921.4
42.5°	998.7	979.3	926.9	888.2	874.5
45°	951.7	932.4	882.8	841.4	827.6
47.5°	902.1	882.8	830.4	791.8	777.9
50°	852.4	830.4	783.5	742.0	728.3
52.5°	797.2	777.9	731.0	692.4	678.6
55°	742.0	722.7	678.6	642.7	629.0
57.5°	684.1	667.6	626.2	587.6	573.8
60°	626.2	606.9	565.5	535.2	521.4
62.5°	562.8	546.2	513.1	482.8	474.5
65°	504.8	488.3	457.9	430.3	419.3
67.5°	444.2	430.3	400.0	377.9	366.9
70°	380.7	369.7	344.8	325.6	317.3
72.5°	322.7	309.0	289.7	273.1	267.6
75°	262.1	251.1	234.5	223.5	217.9
77.5°	201.4	193.1	182.1	173.8	168.2
80°	146.2	137.9	132.5	126.9	121.4
82.5°	93.8	88.3	88.3	82.8	80.0
85°	49.6	49.6	49.6	46.9	44.2
87.5°	16.6	19.3	19.3	16.6	16.6
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	21.45	23.08	21.82	23.39	23.71	20.50	22.13	20.87	22.45	22.76
	3H	23.23	24.70	23.60	25.03	25.39	22.22	23.69	22.59	24.02	24.38
	4H	23.87	25.26	24.27	25.60	25.98	22.84	24.22	23.24	24.57	24.95
	6H	24.30	25.58	24.71	25.94	26.33	23.25	24.54	23.66	24.90	25.29
	8H	24.41	25.63	24.83	26.02	26.42	23.37	24.59	23.79	24.98	25.38
	12H	24.46	25.64	24.89	26.02	26.45	23.43	24.60	23.86	24.98	25.41
4H	2H	21.97	23.36	22.37	23.71	24.08	21.22	22.61	21.62	22.96	23.33
	3H	23.97	25.13	24.38	25.53	25.93	23.14	24.30	23.55	24.70	25.10
	4H	24.74	25.79	25.17	26.20	26.64	23.87	24.92	24.30	25.33	25.77
	6H	25.28	26.20	25.73	26.64	27.09	24.40	25.31	24.85	25.75	26.21
	8H	25.43	26.29	25.89	26.73	27.19	24.54	25.40	25.00	25.84	26.31
	12H	25.52	26.29	26.00	26.76	27.23	24.64	25.41	25.12	25.88	26.35
8H	4H	24.97	25.83	25.43	26.27	26.74	24.20	25.06	24.66	25.50	25.97
	6H	25.61	26.32	26.11	26.81	27.29	24.83	25.54	25.33	26.03	26.51
	8H	25.82	26.45	26.33	26.96	27.45	25.04	25.67	25.55	26.18	26.67
	12H	25.96	26.52	26.46	27.01	27.57	25.18	25.74	25.69	26.23	26.80
12H	4H	24.99	25.76	25.47	26.24	26.70	24.24	25.01	24.72	25.48	25.95
	6H	25.64	26.28	26.15	26.79	27.27	24.88	25.52	25.39	26.03	26.51
	8H	25.89	26.45	26.40	26.95	27.51	25.14	25.70	25.64	26.19	26.75