

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: P931287

Luminaire Tested: DFN2DS-TR2F0-050DS850-FLL

Issue Date: 11/20/2024

Test Information

Test Method: LM-79-2019
Report Number: P931287
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P333812)
Test Lab: INNOVATION CENTER
Issue Date: 11/20/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: DFN2DS-TR2F0-050DS850-FLL
Description: 2 foot, Triangle Define Geo, with Direct Frosted Lens
Light Source: -
Ballast/Driver: -

Summary

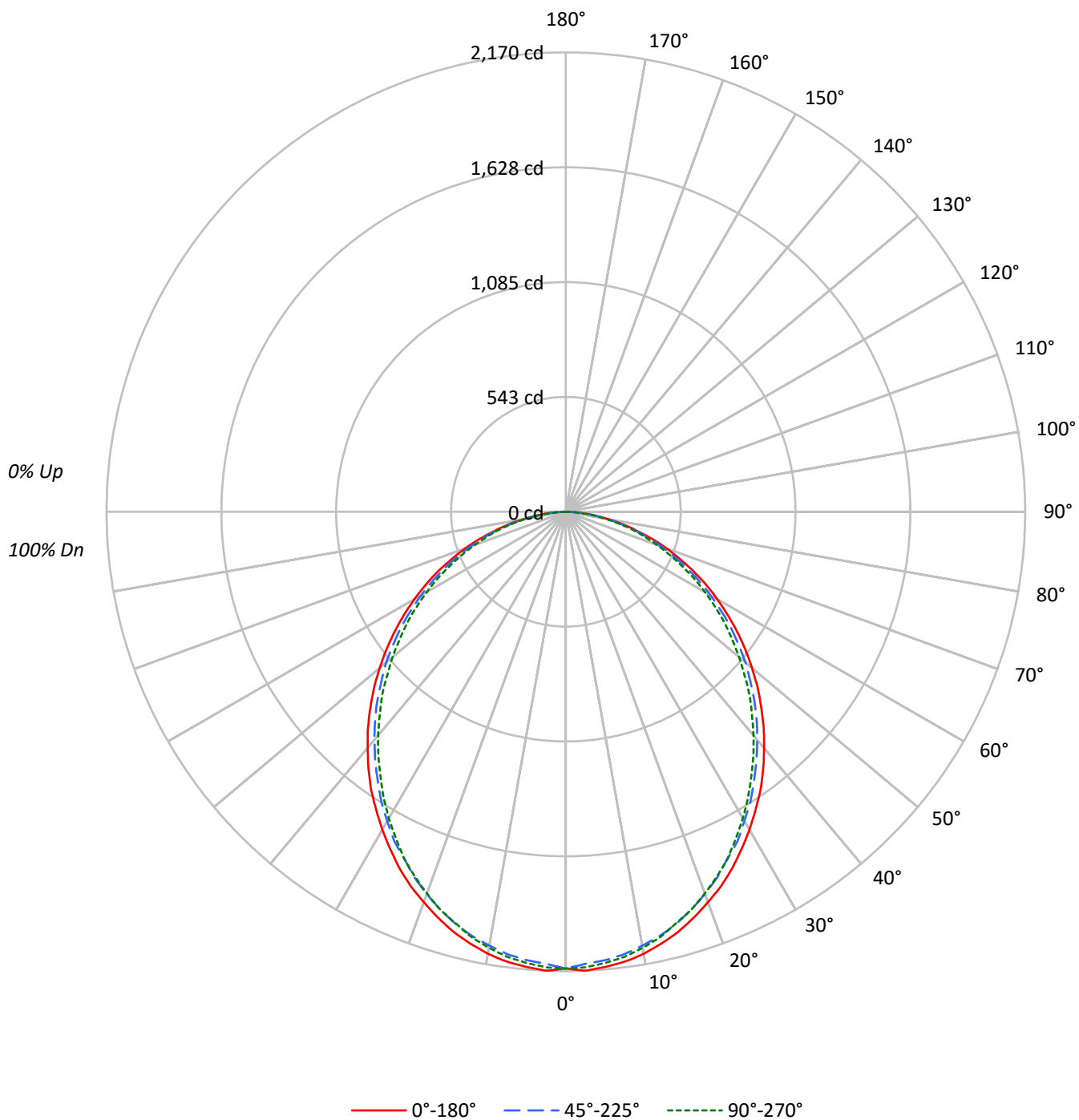
Lumens per Lamp: N/A
Luminaire Lumens: 5489.6 lumens
Efficiency: N/A
Efficacy: 110.0 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.16 / 1.29
Luminous Opening: Rectangular (W 2.36' x L: 2.04' x H: 0')
CIE Type: Direct

Input Watts (W): 49.9
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: 0.9789
Total Harmonic Distortion (THDi): 0.074
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT

TEST NUMBER: P931287

CATALOG NUMBER: DFN2DS-TR2F0-050DS850-FLL

Luminous Intensity Polar Plot



TEST NUMBER: P931287

CATALOG NUMBER: DFN2DS-TR2F0-050DS850-FLL

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	85	79	97	89	83	78	86	81	76		83	78	74		80
3	91	80	72	66	88	79	71	65	76	69	64		73	68	63		71
4	83	71	63	56	81	70	62	56	68	61	55		65	59	54		63
5	77	64	55	49	75	63	55	48	61	53	48		59	52	47		57
6	71	58	49	43	69	57	48	42	55	48	42		53	47	42		52
7	66	52	44	38	64	52	43	38	50	43	37		49	42	37		47
8	61	48	40	34	60	47	39	34	46	39	33		45	38	33		44
9	57	44	36	30	56	43	36	30	42	35	30		41	35	30		40
10	54	41	33	28	53	40	33	28	39	32	27		38	32	27		37

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	4812	4812	4812
5°	4831	4761	4790
10°	4802	4713	4737
15°	4743	4652	4647
20°	4658	4560	4555
25°	4575	4447	4447
30°	4467	4344	4307
35°	4367	4220	4158
40°	4241	4095	4017
45°	4117	3972	3874
50°	3981	3844	3707
55°	3841	3695	3558
60°	3683	3517	3388
65°	3515	3340	3186
70°	3302	3125	2978
75°	3002	2877	2808
80°	2667	2584	2452
85°	2173	2073	1858

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 4117 cd/sqm

TEST NUMBER: P931287

CATALOG NUMBER: DFN2DS-TR2F0-050DS850-FLL

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	203.1	3.7
10°-20°	571.4	10.4
20°-30°	839.7	15.3
30°-40°	975.2	17.8
40°-50°	974.0	17.7
50°-60°	849.3	15.5
60°-70°	627.9	11.4
70°-80°	355.2	6.5
80°-90°	93.8	1.7
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°	1614.1	29.4
0°-40°	2589.4	47.2
0°-60°	4412.7	80.4
0°-90°	5489.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5489.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2158	2158	2158	2158	2158	
5°	2158	2150	2126	2143	2139	205
15°	2054	2042	2014	2023	2012	578
25°	1859	1842	1807	1811	1807	855
35°	1604	1583	1550	1537	1527	1001
45°	1305	1290	1259	1237	1228	1007
55°	988	975	950	925	915	883
65°	666	654	633	614	604	659
75°	348	344	334	322	326	372
85°	85	83	81	75	73	100
90°	0	0	0	0	0	

TEST NUMBER: P931287

CATALOG NUMBER: DFN2DS-TR2F0-050DS850-FLL

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2157.6	2157.6	2157.6	2157.6	2157.6
2.5°	2170.1	2159.8	2136.9	2157.6	2153.7
5°	2157.6	2149.5	2126.5	2143.0	2139.2
7.5°	2143.0	2130.7	2107.9	2124.6	2120.4
10°	2120.4	2105.9	2081.0	2097.5	2091.4
12.5°	2089.1	2076.8	2052.0	2062.3	2058.1
15°	2053.9	2041.6	2014.5	2022.9	2012.5
17.5°	2010.3	1998.0	1970.9	1981.2	1970.9
20°	1962.6	1950.3	1921.2	1927.3	1919.2
22.5°	1915.0	1896.3	1869.2	1869.2	1865.0
25°	1858.9	1842.4	1807.1	1811.1	1807.1
27.5°	1796.6	1782.1	1755.2	1749.0	1738.7
30°	1734.5	1717.8	1686.8	1680.6	1672.3
32.5°	1668.0	1655.7	1622.5	1609.9	1601.6
35°	1603.7	1583.1	1549.8	1537.3	1527.0
37.5°	1531.1	1512.5	1479.2	1464.7	1454.3
40°	1456.6	1439.8	1406.5	1388.0	1379.7
42.5°	1383.9	1367.2	1334.1	1313.2	1300.9
45°	1305.1	1290.5	1259.3	1236.6	1228.2
47.5°	1228.2	1213.7	1180.5	1157.6	1145.3
50°	1147.3	1136.9	1107.9	1078.8	1068.4
52.5°	1068.4	1053.9	1027.0	1004.2	989.7
55°	987.7	975.1	950.2	925.3	915.0
57.5°	906.6	896.3	869.2	844.4	836.0
60°	825.7	817.6	788.5	765.5	759.4
62.5°	746.9	732.4	711.6	690.9	682.6
65°	666.1	653.5	632.8	614.2	603.7
67.5°	583.1	572.6	554.1	539.5	531.1
70°	506.3	497.9	479.2	464.7	456.6
72.5°	427.5	419.1	408.8	394.2	388.0
75°	348.4	344.5	333.9	321.6	325.8
77.5°	278.0	269.6	265.5	259.3	253.2
80°	207.6	205.4	201.2	195.1	190.9
82.5°	141.1	141.1	139.1	130.8	130.8
85°	84.9	83.0	81.0	74.6	72.6
87.5°	37.4	33.3	29.1	22.8	20.7
90°	0.0	0.0	0.0	0.0	0.0

TEST NUMBER: P931287

CATALOG NUMBER: DFN2DS-TR2F0-050DS850-FLL

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	16.74	18.35	17.11	18.67	18.98	16.30	17.91	16.66	18.22	18.54
	3H	18.49	19.95	18.87	20.27	20.63	18.00	19.46	18.38	19.78	20.14
	4H	19.14	20.51	19.54	20.85	21.23	18.64	20.01	19.04	20.36	20.74
	6H	19.61	20.88	20.02	21.24	21.63	19.11	20.37	19.52	20.74	21.13
	8H	19.75	20.96	20.17	21.35	21.75	19.25	20.46	19.67	20.85	21.25
	12H	19.84	21.00	20.27	21.38	21.81	19.33	20.49	19.76	20.87	21.30
4H	2H	17.30	18.67	17.70	19.02	19.39	16.95	18.32	17.35	18.67	19.04
	3H	19.28	20.42	19.69	20.82	21.22	18.87	20.02	19.28	20.41	20.81
	4H	20.05	21.09	20.48	21.50	21.94	19.63	20.67	20.06	21.08	21.52
	6H	20.65	21.55	21.10	22.00	22.45	20.22	21.12	20.67	21.56	22.02
	8H	20.84	21.69	21.30	22.13	22.59	20.40	21.25	20.86	21.69	22.16
	12H	20.97	21.73	21.45	22.21	22.68	20.52	21.28	21.00	21.76	22.22
8H	4H	20.33	21.17	20.79	21.62	22.08	19.95	20.80	20.41	21.24	21.71
	6H	21.04	21.74	21.53	22.23	22.71	20.66	21.36	21.15	21.85	22.33
	8H	21.30	21.93	21.81	22.44	22.92	20.91	21.54	21.42	22.05	22.53
	12H	21.50	22.06	22.01	22.55	23.11	21.09	21.65	21.59	22.14	22.70
12H	4H	20.35	21.11	20.83	21.59	22.06	19.99	20.75	20.47	21.22	21.69
	6H	21.09	21.72	21.60	22.23	22.71	20.72	21.35	21.23	21.86	22.34
	8H	21.40	21.96	21.91	22.45	23.01	21.02	21.58	21.53	22.07	22.63