

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: P931294

Luminaire Tested: DFN2DS-TR2F0-050DS935-RLL

Issue Date: 11/20/2024

Test Information

Test Method: LM-79-2019
Report Number: P931294
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P333882)
Test Lab: INNOVATION CENTER
Issue Date: 11/20/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: DFN2DS-TR2F0-050DS935-RLL
Description: 2 foot, Triangle Define Geo, with Direct 1in Regressed Frosted Lens
Light Source: -
Ballast/Driver: -

Summary

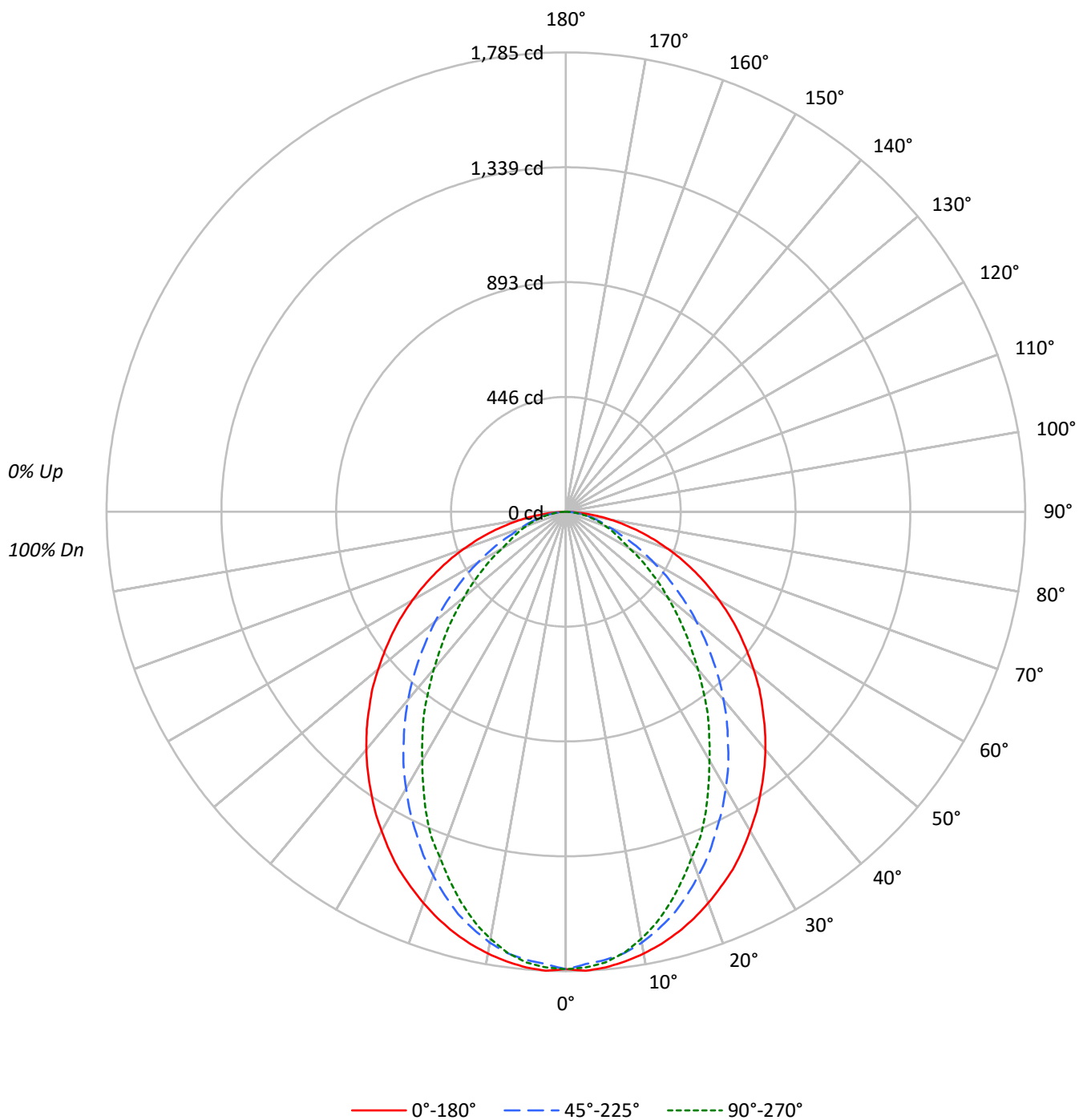
Lumens per Lamp: N/A
Luminaire Lumens: 3655.0 lumens
Efficiency: N/A
Efficacy: 73.2 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 0.99 / 1.16
Luminous Opening: Rectangular (W 2.36' x L: 2.04' x H: 0')
CIE Type: Direct

Input Watts (W): 49.9
Input Voltage (V):
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: P931294

CATALOG NUMBER: DFN2DS-TR2F0-050DS935-RLL

Luminous Intensity Polar Plot



TEST NUMBER: P931294

CATALOG NUMBER: DFN2DS-TR2F0-050DS935-RLL

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	110	106	102	98	107	103	100	97	99	96	94		95	93	91		92
2	101	94	87	82	98	92	86	81	88	83	79		85	81	78		82
3	93	83	76	70	90	82	75	69	79	73	68		76	71	67		74
4	86	75	66	60	83	73	66	60	71	64	59		69	63	58		66
5	79	67	59	53	77	66	58	52	64	57	52		62	56	51		60
6	74	61	53	47	72	60	52	46	58	51	46		57	50	46		55
7	68	56	47	42	67	55	47	42	53	46	41		52	46	41		51
8	64	51	43	38	62	51	43	37	49	42	37		48	42	37		47
9	60	47	39	34	59	47	39	34	46	39	34		44	38	34		44
10	56	44	36	31	55	43	36	31	42	36	31		41	35	31		41

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3964	3964	3964
5°	3979	3914	3936
10°	3949	3850	3817
15°	3903	3736	3629
20°	3840	3573	3394
25°	3776	3388	3166
30°	3687	3198	2874
35°	3600	2991	2619
40°	3512	2777	2323
45°	3409	2537	2054
50°	3304	2294	1792
55°	3196	2032	1539
60°	3070	1758	1277
65°	2929	1477	1163
70°	2759	1216	1070
75°	2550	1109	998
80°	2252	990	909
85°	1768	781	781

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 3409 cd/sqm

TEST NUMBER: P931294

CATALOG NUMBER: DFN2DS-TR2F0-050DS935-RLL

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	166.6	4.6
10°-20°	457.2	12.5
20°-30°	641.9	17.6
30°-40°	699.8	19.1
40°-50°	643.2	17.6
50°-60°	505.1	13.8
60°-70°	328.8	9.0
70°-80°	169.3	4.6
80°-90°	43.2	1.2
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°	1265.8	34.6
0°-40°	1965.5	53.8
0°-60°	3113.8	85.2
0°-90°	3655.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3655.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1777	1777	1777	1777	1777	
5°	1777	1769	1748	1763	1758	169
15°	1690	1673	1618	1588	1571	476
25°	1534	1483	1377	1311	1287	706
35°	1322	1240	1099	997	962	827
45°	1081	973	804	690	651	835
55°	822	696	523	426	396	734
65°	555	425	280	225	220	550
75°	296	183	129	117	116	313
85°	69	35	30	30	30	83
90°	0	0	0	0	0	

TEST NUMBER: P931294

CATALOG NUMBER: DFN2DS-TR2F0-050DS935-RLL

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1777.2	1777.2	1777.2	1777.2	1777.2
2.5°	1785.2	1777.2	1759.5	1775.6	1772.4
5°	1777.2	1769.2	1748.2	1762.7	1757.9
7.5°	1762.7	1753.1	1730.6	1736.9	1728.9
10°	1743.4	1732.1	1700.0	1695.1	1685.5
12.5°	1719.3	1704.9	1661.3	1651.8	1634.0
15°	1690.3	1672.6	1618.0	1587.5	1571.4
17.5°	1656.5	1630.8	1563.2	1527.9	1502.1
20°	1618.0	1585.8	1505.3	1465.3	1429.8
22.5°	1576.2	1539.1	1445.8	1391.2	1367.1
25°	1534.3	1482.8	1376.7	1310.8	1286.6
27.5°	1484.5	1429.8	1312.4	1236.8	1199.8
30°	1431.5	1370.2	1241.6	1159.6	1116.1
32.5°	1380.0	1305.9	1174.2	1077.6	1037.3
35°	1322.1	1240.0	1098.6	997.2	961.7
37.5°	1265.7	1177.3	1027.8	916.7	876.6
40°	1206.2	1109.8	953.7	839.5	797.7
42.5°	1145.2	1042.2	879.8	760.7	720.6
45°	1080.8	973.0	804.2	689.9	651.3
47.5°	1019.7	905.6	731.9	617.6	582.2
50°	952.2	838.0	661.1	550.0	516.3
52.5°	886.1	765.5	593.5	487.4	456.8
55°	821.8	696.3	522.6	426.2	395.7
57.5°	755.9	627.3	460.0	370.0	344.2
60°	688.3	559.7	394.0	312.1	286.3
62.5°	622.5	493.8	337.7	260.6	247.8
65°	554.9	424.6	279.8	225.2	220.3
67.5°	490.5	360.3	225.2	197.8	193.0
70°	423.0	297.6	186.5	170.5	164.0
72.5°	358.7	239.6	156.0	143.2	139.9
75°	295.9	183.3	128.7	117.4	115.8
77.5°	233.2	130.2	101.4	94.9	91.6
80°	175.3	93.3	77.1	70.8	70.8
82.5°	122.2	62.8	53.1	49.8	49.8
85°	69.1	35.3	30.5	30.5	30.5
87.5°	25.8	12.8	12.8	11.3	11.3
90°	0.0	0.0	0.0	0.0	0.0

TEST NUMBER: P931294

CATALOG NUMBER: DFN2DS-TR2F0-050DS935-RLL

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	16.02	17.54	16.38	17.86	18.17	11.98	13.50	12.35	13.82	14.13
	3H	17.79	19.15	18.16	19.48	19.84	13.25	14.61	13.62	14.94	15.30
	4H	18.45	19.73	18.85	20.08	20.46	13.75	15.03	14.15	15.38	15.76
	6H	18.94	20.12	19.35	20.49	20.88	14.13	15.31	14.54	15.68	16.07
	8H	19.11	20.23	19.53	20.62	21.02	14.25	15.38	14.68	15.77	16.17
	12H	19.21	20.29	19.64	20.67	21.10	14.33	15.41	14.76	15.79	16.22
4H	2H	16.12	17.40	16.52	17.75	18.13	12.68	13.96	13.08	14.31	14.68
	3H	18.06	19.12	18.47	19.52	19.92	14.12	15.18	14.53	15.58	15.98
	4H	18.81	19.76	19.24	20.18	20.62	14.72	15.68	15.15	16.09	16.53
	6H	19.40	20.23	19.86	20.67	21.13	15.21	16.04	15.66	16.48	16.94
	8H	19.61	20.39	20.08	20.83	21.30	15.37	16.15	15.83	16.59	17.06
	12H	19.77	20.46	20.25	20.94	21.41	15.49	16.18	15.97	16.66	17.13
8H	4H	18.83	19.61	19.29	20.05	20.52	15.07	15.85	15.54	16.29	16.76
	6H	19.47	20.11	19.96	20.60	21.08	15.66	16.30	16.16	16.79	17.27
	8H	19.72	20.30	20.23	20.80	21.29	15.88	16.46	16.39	16.97	17.45
	12H	19.92	20.43	20.43	20.92	21.49	16.06	16.57	16.57	17.06	17.63
12H	4H	18.82	19.51	19.30	19.99	20.46	15.12	15.81	15.60	16.29	16.76
	6H	19.45	20.03	19.96	20.54	21.02	15.72	16.30	16.24	16.81	17.30
	8H	19.73	20.24	20.24	20.74	21.30	16.00	16.51	16.50	17.00	17.56