

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: P931378

Luminaire Tested: DFN2DS-TR3F0-060DS850-RLL

Issue Date: 11/20/2024

Test Information

Test Method: LM-79-2019
Report Number: P931378
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-TR3F0-060DS850-RLL
Description: 3 foot, Triangle Define Geo, with Direct 1in Regressed Frosted Lens
Light Source: -
Ballast/Driver: -

Summary

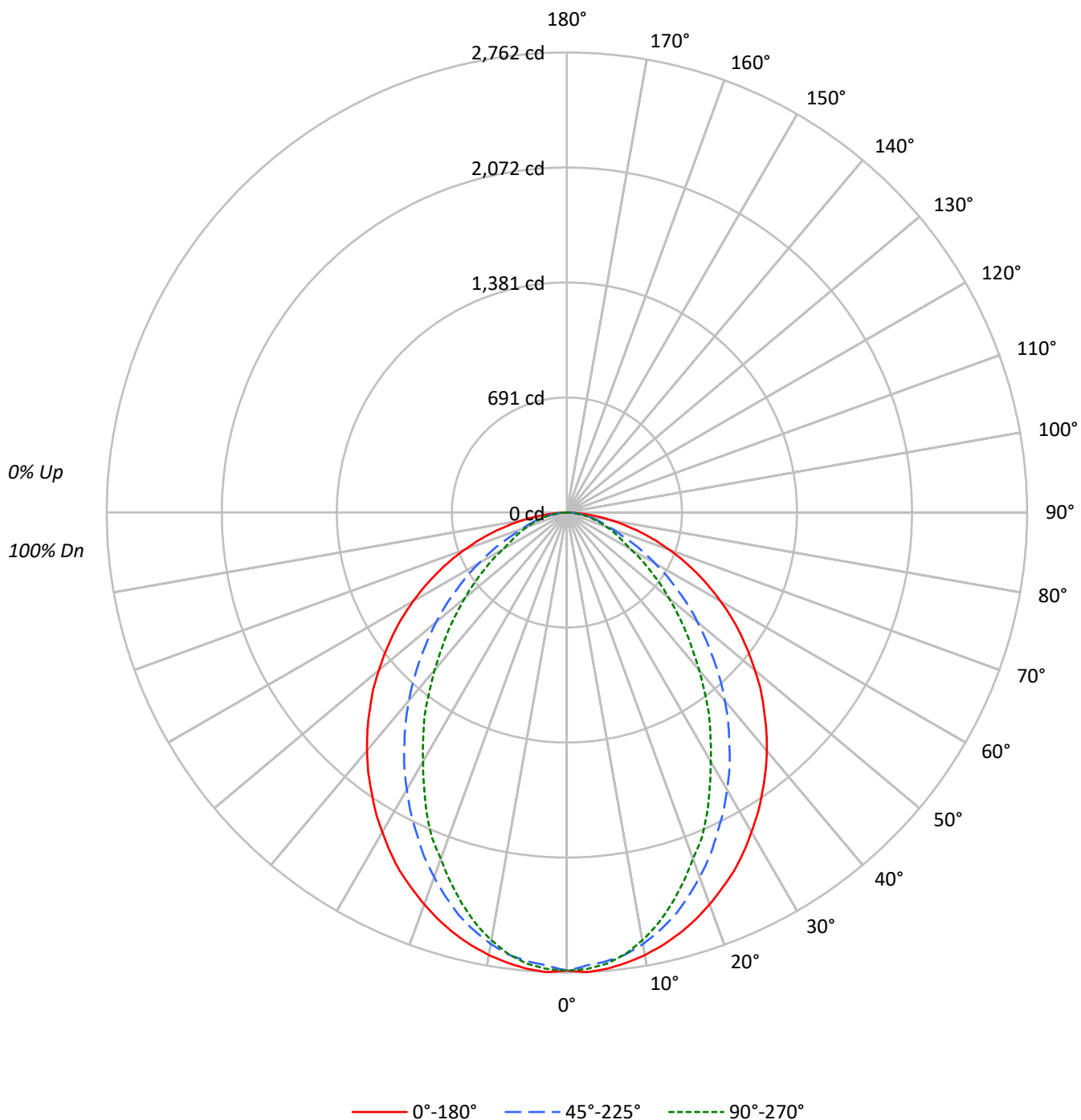
Lumens per Lamp: N/A
Luminaire Lumens: 5655.9 lumens
Efficiency: N/A
Efficacy: 91.8 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 0.99 / 1.16
Luminous Opening: Rectangular (W 3.16' x L: 2.74' x H: 0')
CIE Type: Direct

Input Watts (W): 61.6
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: P931378

CATALOG NUMBER: DFN2DS-TR3F0-060DS850-RLL

Luminous Intensity Polar Plot



TEST NUMBER: P931378

CATALOG NUMBER: DFN2DS-TR3F0-060DS850-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°	3427	3427	3427
5°	3440	3384	3403
10°	3414	3329	3300
15°	3374	3230	3137
20°	3320	3089	2934
25°	3265	2929	2737
30°	3187	2764	2485
35°	3112	2586	2264
40°	3036	2400	2008
45°	2947	2193	1776
50°	2856	1983	1549
55°	2763	1757	1330
60°	2655	1520	1104
65°	2532	1277	1005
70°	2385	1051	924
75°	2205	959	863
80°	1946	856	786
85°	1528	675	675

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 2947 cd/sqm

TEST NUMBER: P931378

CATALOG NUMBER: DFN2DS-TR3F0-060DS850-RLL

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	257.7	4.6
10°-20°	707.6	12.5
20°-30°	993.4	17.6
30°-40°	1082.8	19.1
40°-50°	995.2	17.6
50°-60°	781.6	13.8
60°-70°	508.8	9.0
70°-80°	261.9	4.6
80°-90°	66.9	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°	1958.7	34.6
0°-40°	3041.5	53.8
0°-60°	4818.4	85.2
0°-90°	5655.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5655.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2750	2750	2750	2750	2750	
5°	2750	2738	2705	2728	2720	261
15°	2616	2588	2504	2456	2432	737
25°	2374	2295	2130	2028	1991	1092
35°	2046	1919	1700	1543	1488	1281
45°	1672	1506	1244	1068	1008	1292
55°	1272	1078	809	660	612	1136
65°	859	657	433	349	341	851
75°	458	284	199	182	179	484
85°	107	55	47	47	47	128
90°	0	0	0	0	0	

TEST NUMBER: P931378

CATALOG NUMBER: DFN2DS-TR3F0-060DS850-RLL

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2750.1	2750.1	2750.1	2750.1	2750.1
2.5°	2762.5	2750.1	2722.6	2747.7	2742.7
5°	2750.1	2737.7	2705.2	2727.7	2720.3
7.5°	2727.7	2712.8	2678.0	2687.8	2675.4
10°	2697.8	2680.3	2630.8	2623.1	2608.3
12.5°	2660.6	2638.1	2570.8	2556.0	2528.5
15°	2615.7	2588.2	2503.7	2456.4	2431.6
17.5°	2563.5	2523.5	2419.0	2364.3	2324.5
20°	2503.7	2453.8	2329.5	2267.4	2212.5
22.5°	2439.0	2381.7	2237.3	2152.8	2115.5
25°	2374.4	2294.6	2130.4	2028.5	1991.0
27.5°	2297.3	2212.5	2030.8	1913.8	1856.6
30°	2215.1	2120.3	1921.2	1794.5	1727.2
32.5°	2135.4	2020.8	1817.0	1667.5	1605.2
35°	2045.9	1918.9	1700.0	1543.1	1488.2
37.5°	1958.7	1821.6	1590.4	1418.5	1356.4
40°	1866.6	1717.4	1475.7	1299.1	1234.4
42.5°	1772.1	1612.8	1361.4	1177.1	1115.1
45°	1672.5	1505.6	1244.5	1067.5	1007.9
47.5°	1578.0	1401.3	1132.5	955.6	901.0
50°	1473.4	1296.8	1022.9	851.0	799.0
52.5°	1371.2	1184.5	918.4	754.1	706.9
55°	1271.7	1077.6	808.8	659.6	612.3
57.5°	1169.8	970.6	711.9	572.5	532.5
60°	1065.2	866.1	609.7	483.0	443.0
62.5°	963.3	764.2	522.6	403.2	383.4
65°	858.7	657.0	433.1	348.6	340.9
67.5°	759.1	557.4	348.6	306.1	298.7
70°	654.5	460.5	288.6	263.8	253.7
72.5°	555.1	370.7	241.3	221.6	216.5
75°	457.9	283.6	199.1	181.7	179.3
77.5°	361.0	201.5	156.8	146.8	141.8
80°	271.2	144.4	119.3	109.6	109.6
82.5°	189.1	97.1	82.1	77.1	77.1
85°	106.9	54.7	47.2	47.2	47.2
87.5°	39.9	19.9	19.9	17.4	17.4
90°	0.0	0.0	0.0	0.0	0.0

TEST NUMBER: P931378

CATALOG NUMBER: DFN2DS-TR3F0-060DS850-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	15.51	17.04	15.88	17.35	17.66	11.47	13.00	11.84	13.31	13.62
	3H	17.28	18.64	17.66	18.97	19.33	12.74	14.11	13.12	14.43	14.79
	4H	17.95	19.23	18.35	19.57	19.95	13.24	14.52	13.64	14.87	15.25
	6H	18.43	19.62	18.85	19.98	20.38	13.62	14.81	14.03	15.17	15.56
	8H	18.60	19.73	19.03	20.12	20.52	13.75	14.87	14.17	15.26	15.66
	12H	18.70	19.78	19.13	20.16	20.59	13.83	14.91	14.26	15.29	15.72
4H	2H	15.62	16.90	16.02	17.25	17.63	12.17	13.45	12.57	13.80	14.18
	3H	17.55	18.61	17.96	19.01	19.41	13.61	14.68	14.02	15.08	15.48
	4H	18.30	19.26	18.73	19.67	20.11	14.21	15.17	14.65	15.59	16.02
	6H	18.89	19.72	19.35	20.17	20.63	14.70	15.53	15.16	15.98	16.44
	8H	19.11	19.88	19.57	20.33	20.80	14.86	15.64	15.33	16.08	16.55
	12H	19.26	19.95	19.74	20.43	20.90	14.98	15.67	15.46	16.15	16.62
8H	4H	18.32	19.10	18.79	19.55	20.01	14.57	15.34	15.03	15.79	16.26
	6H	18.96	19.60	19.46	20.10	20.57	15.15	15.80	15.65	16.29	16.76
	8H	19.21	19.79	19.73	20.30	20.79	15.37	15.95	15.89	16.46	16.95
	12H	19.42	19.93	19.93	20.42	20.98	15.55	16.06	16.06	16.56	17.12
12H	4H	18.31	19.00	18.79	19.48	19.95	14.61	15.30	15.09	15.78	16.25
	6H	18.94	19.52	19.46	20.03	20.52	15.22	15.79	15.73	16.30	16.79
	8H	19.23	19.74	19.74	20.23	20.79	15.49	16.00	16.00	16.49	17.06