

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: P931356

Luminaire Tested: DFN2DS-TR3F0-050DS835-RLL

Issue Date: 11/20/2024

Test Information

Test Method: LM-79-2019
Report Number: P931356
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-TR3F0-050DS835-RLL
Description: 3 foot, Triangle Define Geo, with Direct 1in Regressed Frosted Lens
Light Source: -
Ballast/Driver: -

Summary

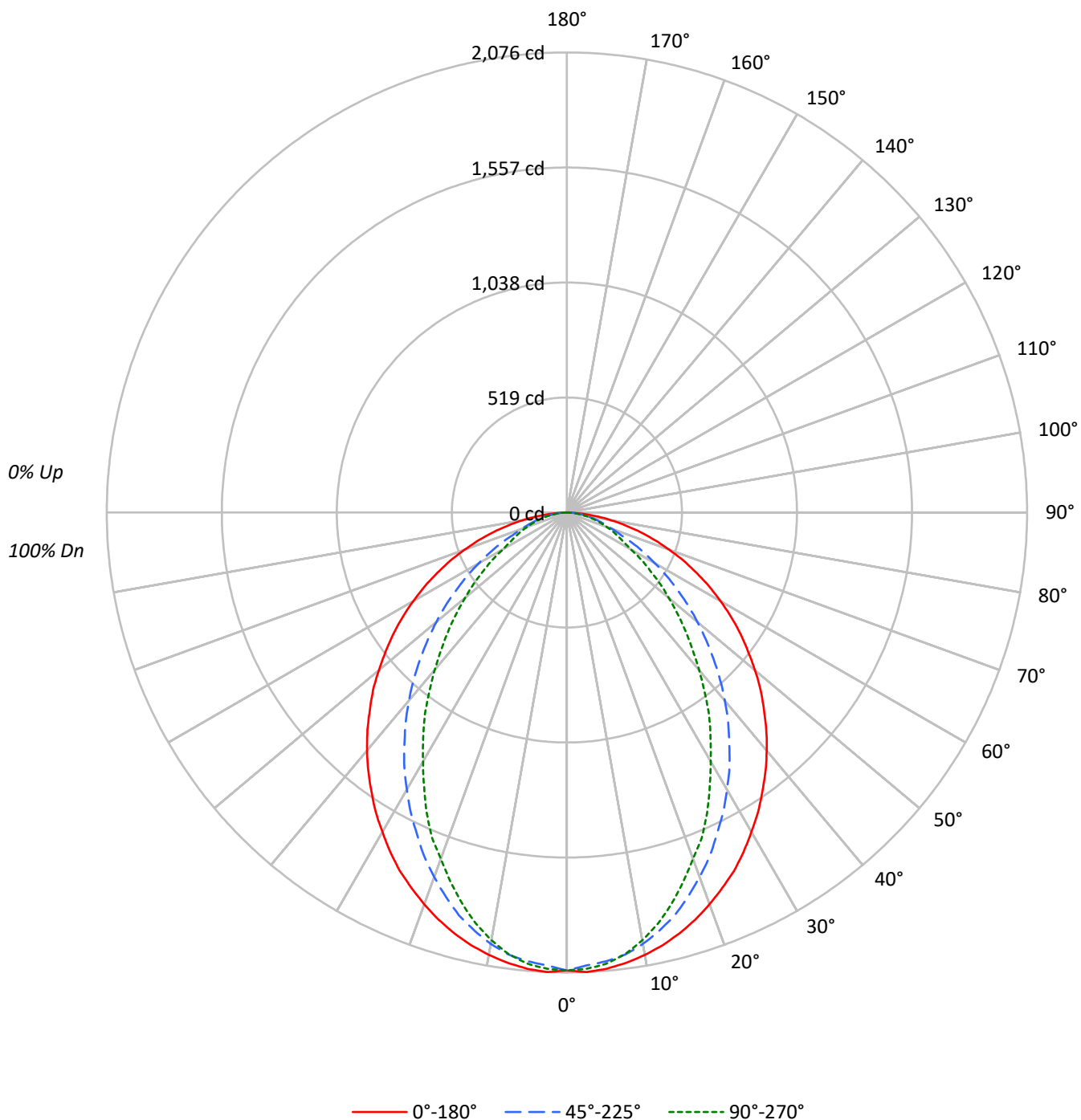
Lumens per Lamp: N/A
Luminaire Lumens: 4250.0 lumens
Efficiency: N/A
Efficacy: 85.7 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 0.99 / 1.16
Luminous Opening: Rectangular (W 3.16' x L: 2.74' x H: 0')
CIE Type: Direct

Input Watts (W): 49.6
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: 0.9933
Total Harmonic Distortion (THDi): 0.066
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT

TEST NUMBER: P931356

CATALOG NUMBER: DFN2DS-TR3F0-050DS835-RLL

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	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°	2575	2575	2575
5°	2585	2543	2557
10°	2565	2501	2480
15°	2536	2427	2357
20°	2495	2321	2205
25°	2453	2201	2057
30°	2395	2077	1867
35°	2339	1943	1701
40°	2282	1804	1509
45°	2215	1648	1335
50°	2146	1490	1164
55°	2076	1320	1000
60°	1995	1142	830
65°	1902	959	755
70°	1792	790	695
75°	1657	720	649
80°	1462	644	591
85°	1150	508	508

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 2215 cd/sqm

TEST NUMBER: P931356

CATALOG NUMBER: DFN2DS-TR3F0-050DS835-RLL

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	193.7	4.6
10°-20°	531.7	12.5
20°-30°	746.5	17.6
30°-40°	813.7	19.1
40°-50°	747.9	17.6
50°-60°	587.3	13.8
60°-70°	382.3	9.0
70°-80°	196.8	4.6
80°-90°	50.2	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°	1471.8	34.6
0°-40°	2285.5	53.8
0°-60°	3620.7	85.2
0°-90°	4250.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4250.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2066	2066	2066	2066	2066	
5°	2066	2057	2033	2050	2044	196
15°	1966	1945	1881	1846	1827	554
25°	1784	1724	1601	1524	1496	821
35°	1537	1442	1277	1160	1118	962
45°	1257	1131	935	802	757	971
55°	956	810	608	496	460	854
65°	645	494	325	262	256	640
75°	344	213	150	136	135	364
85°	80	41	36	36	36	96
90°	0	0	0	0	0	

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CATALOG NUMBER: DFN2DS-TR3F0-050DS835-RLL

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2066.5	2066.5	2066.5	2066.5	2066.5
2.5°	2075.8	2066.5	2045.9	2064.7	2060.9
5°	2066.5	2057.2	2032.8	2049.6	2044.1
7.5°	2049.6	2038.5	2012.3	2019.7	2010.3
10°	2027.2	2014.1	1976.8	1971.1	1959.9
12.5°	1999.2	1982.4	1931.8	1920.7	1900.0
15°	1965.5	1944.9	1881.4	1845.9	1827.2
17.5°	1926.2	1896.3	1817.7	1776.6	1746.6
20°	1881.4	1843.9	1750.4	1703.8	1662.5
22.5°	1832.8	1789.7	1681.2	1617.7	1589.7
25°	1784.1	1724.2	1600.8	1524.2	1496.0
27.5°	1726.2	1662.5	1526.0	1438.1	1395.1
30°	1664.5	1593.3	1443.7	1348.4	1297.8
32.5°	1604.6	1518.5	1365.3	1253.0	1206.2
35°	1537.3	1441.9	1277.4	1159.5	1118.3
37.5°	1471.8	1368.9	1195.1	1065.9	1019.3
40°	1402.6	1290.5	1108.9	976.2	927.6
42.5°	1331.6	1211.9	1023.0	884.5	837.9
45°	1256.8	1131.4	935.1	802.2	757.3
47.5°	1185.7	1053.0	851.0	718.1	677.0
50°	1107.2	974.4	768.7	639.5	600.4
52.5°	1030.4	890.1	690.1	566.7	531.2
55°	955.6	809.7	607.7	495.6	460.1
57.5°	879.0	729.4	534.9	430.2	400.2
60°	800.4	650.8	458.1	362.9	332.9
62.5°	723.8	574.2	392.7	303.0	288.1
65°	645.2	493.7	325.4	261.9	256.2
67.5°	570.4	418.9	261.9	230.0	224.4
70°	491.9	346.0	216.9	198.2	190.7
72.5°	417.1	278.6	181.4	166.5	162.7
75°	344.1	213.1	149.6	136.5	134.7
77.5°	271.2	151.4	117.9	110.3	106.5
80°	203.8	108.5	89.7	82.3	82.3
82.5°	142.1	73.0	61.7	57.9	57.9
85°	80.4	41.1	35.5	35.5	35.5
87.5°	30.0	14.9	14.9	13.1	13.1
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	14.52	16.04	14.89	16.36	16.67	10.48	12.00	10.85	12.32	12.63
	3H	16.29	17.65	16.66	17.98	18.34	11.75	13.11	12.12	13.44	13.80
	4H	16.95	18.23	17.35	18.58	18.96	12.25	13.53	12.65	13.88	14.26
	6H	17.44	18.62	17.85	18.99	19.38	12.63	13.81	13.04	14.18	14.57
	8H	17.61	18.73	18.03	19.12	19.52	12.75	13.88	13.18	14.27	14.67
	12H	17.71	18.79	18.14	19.17	19.60	12.83	13.91	13.27	14.29	14.72
4H	2H	14.63	15.91	15.02	16.25	16.63	11.18	12.46	11.58	12.81	13.19
	3H	16.56	17.62	16.97	18.02	18.42	12.62	13.68	13.03	14.08	14.48
	4H	17.31	18.26	17.74	18.68	19.12	13.22	14.18	13.65	14.59	15.03
	6H	17.90	18.73	18.36	19.17	19.63	13.71	14.54	14.16	14.98	15.44
	8H	18.11	18.89	18.58	19.34	19.80	13.87	14.65	14.33	15.09	15.56
	12H	18.27	18.96	18.75	19.44	19.91	13.99	14.68	14.47	15.16	15.63
8H	4H	17.33	18.11	17.80	18.55	19.02	13.57	14.35	14.04	14.80	15.26
	6H	17.97	18.61	18.47	19.10	19.58	14.16	14.80	14.66	15.29	15.77
	8H	18.22	18.80	18.73	19.31	19.79	14.38	14.96	14.89	15.47	15.96
	12H	18.42	18.93	18.93	19.43	19.99	14.56	15.07	15.07	15.56	16.13
12H	4H	17.32	18.01	17.80	18.49	18.96	13.62	14.31	14.10	14.79	15.26
	6H	17.95	18.53	18.46	19.04	19.53	14.22	14.80	14.74	15.31	15.80
	8H	18.23	18.74	18.74	19.24	19.80	14.50	15.01	15.01	15.50	16.06