

Scaled data based on original data using
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-State
Lighting Products

Test Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

Brand: NEO-RAY

Report Number: P242679

Luminaire Tested: **S124DR-S795D840-X4F0-XX-UDD-D-W**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P242679
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1802-639-16)
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S124DR-S795D840-X4F0-XX-UDD-D-W
Description: DEFINE 4 DIRECT RECESSED WITH SATIN DROP DIFFUSER
STANDARD LIGHT ENGINE
Light Source: (92) 4000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3074.6 lumens
Efficiency: N/A
Efficacy: 116.5 lumens/watt
Spacing Criteria (0/90/45): 1.23 / 1.28 / 1.39
Luminous Opening: Rectangular w/ Sides (W: 0.31' x L: 3.88' x H: 0.08')
CIE Type: Direct

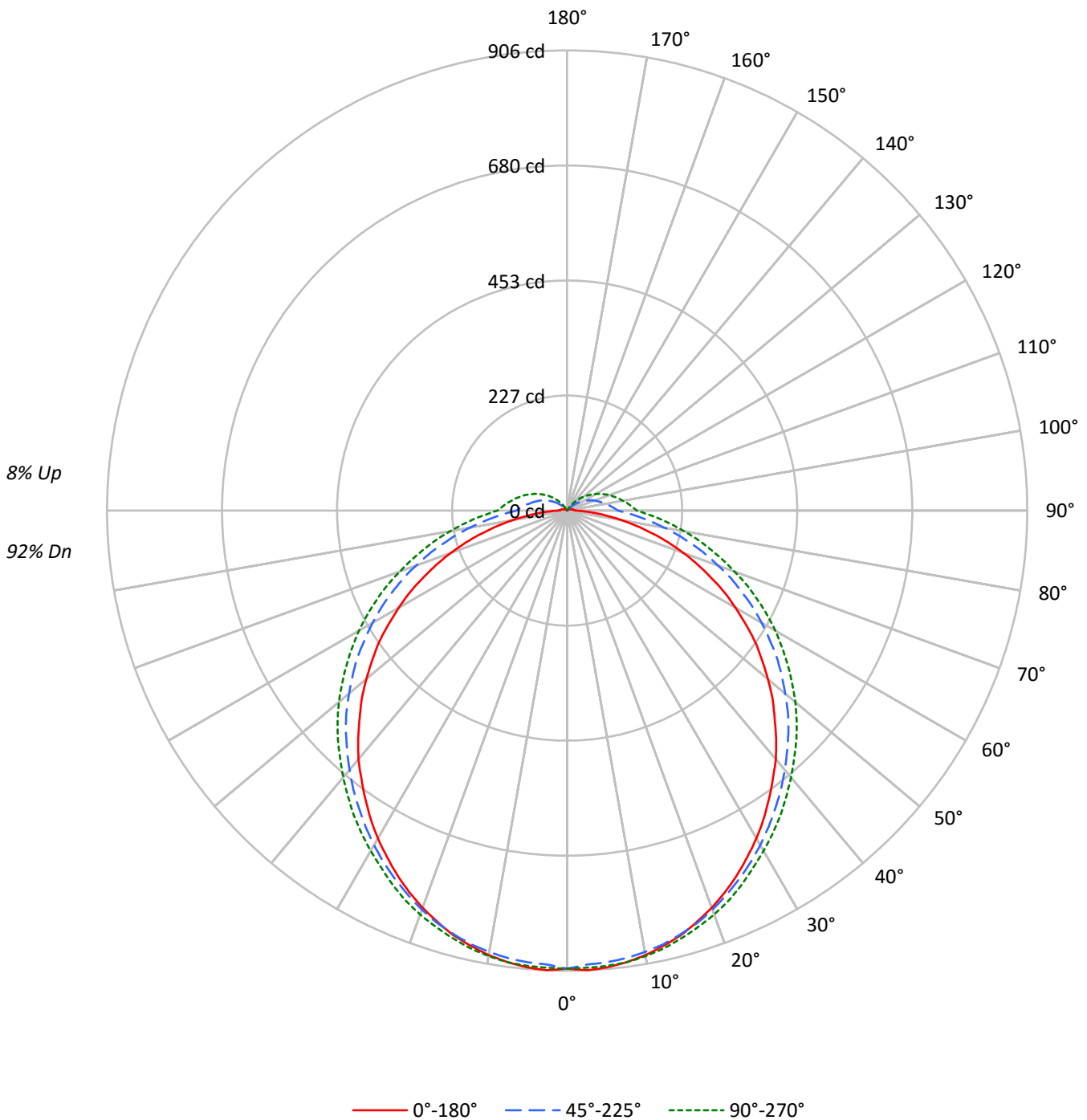
Input Watts (W): 26.4
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
RCR																		
0	117	117	117	117	114	114	114	114	107	107	107	101	101	101	95	95	95	92
1	105	100	95	91	102	97	93	89	91	88	84	86	83	80	81	79	77	74
2	95	86	79	73	92	84	77	71	79	73	68	74	70	66	70	67	63	60
3	87	75	67	60	83	73	65	59	69	62	57	65	60	55	62	57	53	50
4	79	66	57	50	76	65	56	49	61	54	48	58	52	47	55	49	45	43
5	73	59	50	43	70	58	49	42	55	47	41	52	45	40	49	44	39	37
6	67	53	44	37	64	52	43	37	49	42	36	47	40	35	45	39	34	32
7	62	48	39	33	60	47	38	32	45	37	32	43	36	31	41	35	30	28
8	58	44	35	29	56	43	35	29	41	33	28	39	32	28	37	31	27	25
9	54	40	32	26	52	39	31	26	38	30	25	36	29	25	34	29	24	22
10	50	37	29	24	49	36	29	23	35	28	23	33	27	23	32	26	22	20

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	8016	8016	8016
5°	8040	7826	7846
10°	7991	7690	7678
15°	7919	7534	7485
20°	7810	7364	7297
25°	7688	7173	7091
30°	7556	6983	6881
35°	7406	6790	6695
40°	7286	6605	6502
45°	7108	6433	6334
50°	6957	6237	6157
55°	6802	6049	5951
60°	6559	5812	5759
65°	6295	5558	5526
70°	5973	5267	5256
75°	5522	4945	5006
80°	5023	4628	4754
85°	4380	4332	4581



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	85.4	2.8
10°-20°	244.8	8.0
20°-30°	370.2	12.0
30°-40°	447.8	14.6
40°-50°	473.4	15.4
50°-60°	445.6	14.5
60°-70°	369.7	12.0
70°-80°	259.5	8.4
80°-90°	146.3	4.8
90°-100°	87.1	2.8
100°-110°	64.5	2.1
110°-120°	43.3	1.4
120°-130°	24.4	0.8
130°-140°	10.5	0.3
140°-150°	2.1	0.1
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	700.4	22.8
0°-40°	1148.3	37.3
0°-60°	2067.3	67.2
0°-90°	2842.8	92.5
90°-120°	194.9	6.3
90°-150°	231.8	7.5
90°-180°	232.0	7.5
0°-180°	3074.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	902	902	902	902	902	
5°	903	900	893	901	900	86
15°	866	866	863	872	872	244
25°	792	798	801	812	813	365
35°	693	705	715	729	732	434
45°	578	597	616	633	638	446
55°	452	474	504	524	530	403
65°	313	345	380	405	413	310
75°	174	211	254	282	291	185
85°	54	96	141	172	182	56
90°	16	57	100	129	137	11
95°	13	46	88	115	124	10
105°	9	29	67	92	100	10
115°	6	15	48	70	77	6
125°	4	3	28	48	54	4
135°	2	2	9	25	31	2
145°	1	0	0	6	10	1
155°	0	0	0	0	0	0
165°	0	0	0	0	0	0
175°	0	0	0	0	0	0
180°	0	0	0	0	0	0



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	901.8	901.8	901.8	901.8	901.8
2.5°	905.8	902.8	894.7	901.8	900.8
5°	902.8	899.8	892.7	900.8	899.8
7.5°	896.8	894.7	888.7	897.8	896.8
10°	888.7	887.7	882.6	891.7	890.7
12.5°	877.6	877.6	874.5	882.6	882.6
15°	865.5	866.5	863.4	872.5	871.5
17.5°	849.3	852.3	851.3	860.4	859.4
20°	832.1	835.2	836.2	846.3	846.3
22.5°	812.9	817.0	819.0	829.1	831.1
25°	791.7	797.8	800.8	811.9	812.9
27.5°	768.5	777.6	781.6	791.7	792.7
30°	745.3	753.4	760.4	771.5	773.6
32.5°	720.0	730.1	738.2	751.3	753.4
35°	692.8	704.9	715.0	729.1	732.2
37.5°	665.5	679.6	691.8	705.9	708.9
40°	639.2	652.4	666.5	681.7	685.7
42.5°	608.9	624.1	641.3	658.4	661.5
45°	577.6	596.8	616.0	633.2	638.2
47.5°	548.4	567.5	589.8	606.9	613.0
50°	516.0	538.3	560.5	580.7	586.7
52.5°	483.7	505.9	532.2	552.4	558.5
55°	452.4	473.6	503.9	524.1	530.2
57.5°	417.1	443.3	472.6	496.9	501.9
60°	382.7	409.0	442.3	465.5	473.6
62.5°	349.4	378.7	412.0	435.3	443.3
65°	313.1	345.4	379.7	405.0	413.0
67.5°	278.7	313.1	349.4	374.7	382.7
70°	243.4	277.7	316.1	343.4	350.4
72.5°	209.0	244.4	285.8	312.0	320.1
75°	173.7	211.1	253.5	281.8	290.8
77.5°	140.4	179.8	224.2	252.5	262.6
80°	110.1	150.5	194.9	225.2	233.3
82.5°	79.8	122.2	166.6	197.9	207.0
85°	53.5	95.9	141.4	171.7	181.8
87.5°	33.3	74.7	119.2	148.5	157.5
90°	16.2	56.6	100.0	129.3	137.3
92.5°	15.1	50.5	93.9	122.2	130.3
95°	13.1	46.5	87.9	115.1	124.2
97.5°	12.1	41.4	82.8	109.1	118.2
100°	11.1	37.4	76.7	104.0	111.1
102.5°	11.1	33.3	71.7	98.0	106.0
105°	9.1	29.3	66.7	91.9	100.0
107.5°	9.1	26.3	61.6	86.8	93.9
110°	8.1	22.2	57.6	80.8	88.9



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	7.1	19.2	52.5	74.7	82.8
115°	6.1	15.1	47.5	69.7	76.7
117.5°	6.1	12.1	42.4	63.6	71.7
120°	5.0	8.1	37.4	57.6	65.6
122.5°	5.0	5.0	32.3	52.5	59.6
125°	4.0	3.0	28.3	47.5	53.5
127.5°	4.0	3.0	23.2	41.4	48.5
130°	3.0	2.0	18.2	36.4	42.4
132.5°	3.0	2.0	14.1	31.3	37.4
135°	2.0	2.0	9.1	25.2	31.3
137.5°	2.0	1.0	5.0	20.2	25.2
140°	2.0	1.0	2.0	15.1	20.2
142.5°	1.0	1.0	0.0	11.1	15.1
145°	1.0	0.0	0.0	6.1	10.1
147.5°	1.0	0.0	0.0	1.0	5.0
150°	1.0	0.0	0.0	0.0	0.0
152.5°	0.0	0.0	0.0	0.0	0.0
155°	0.0	0.0	0.0	0.0	0.0
157.5°	0.0	0.0	0.0	0.0	0.0
160°	0.0	0.0	0.0	0.0	0.0
162.5°	0.0	0.0	0.0	0.0	0.0
165°	0.0	0.0	0.0	0.0	0.0
167.5°	0.0	0.0	0.0	0.0	0.0
170°	0.0	0.0	0.0	0.0	0.0
172.5°	0.0	0.0	0.0	0.0	0.0
175°	0.0	0.0	0.0	0.0	0.0
177.5°	0.0	0.0	0.0	0.0	0.0
180°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)