

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: P242596

Luminaire Tested: **S124DR-S795D927-X4F0-XX-UDD-F-W**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P242596  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1802-639-5)  
Test Lab: INNOVATION CENTER  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: NEO-RAY  
Catalog Number: S124DR-S795D927-X4F0-XX-UDD-F-W  
Description: DEFINE 4 DIRECT RECESSED WITH SATIN FLUSH DIFFUSER  
STANDARD LIGHT ENGINE  
Light Source: (92) 2700K CCT, 90 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2537.6 lumens  
Efficiency: N/A  
Efficacy: 97.2 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 1.17 / 1.29  
Luminous Opening: Rectangular (W 0.31' x L: 3.88' x H: 0')  
CIE Type: Direct

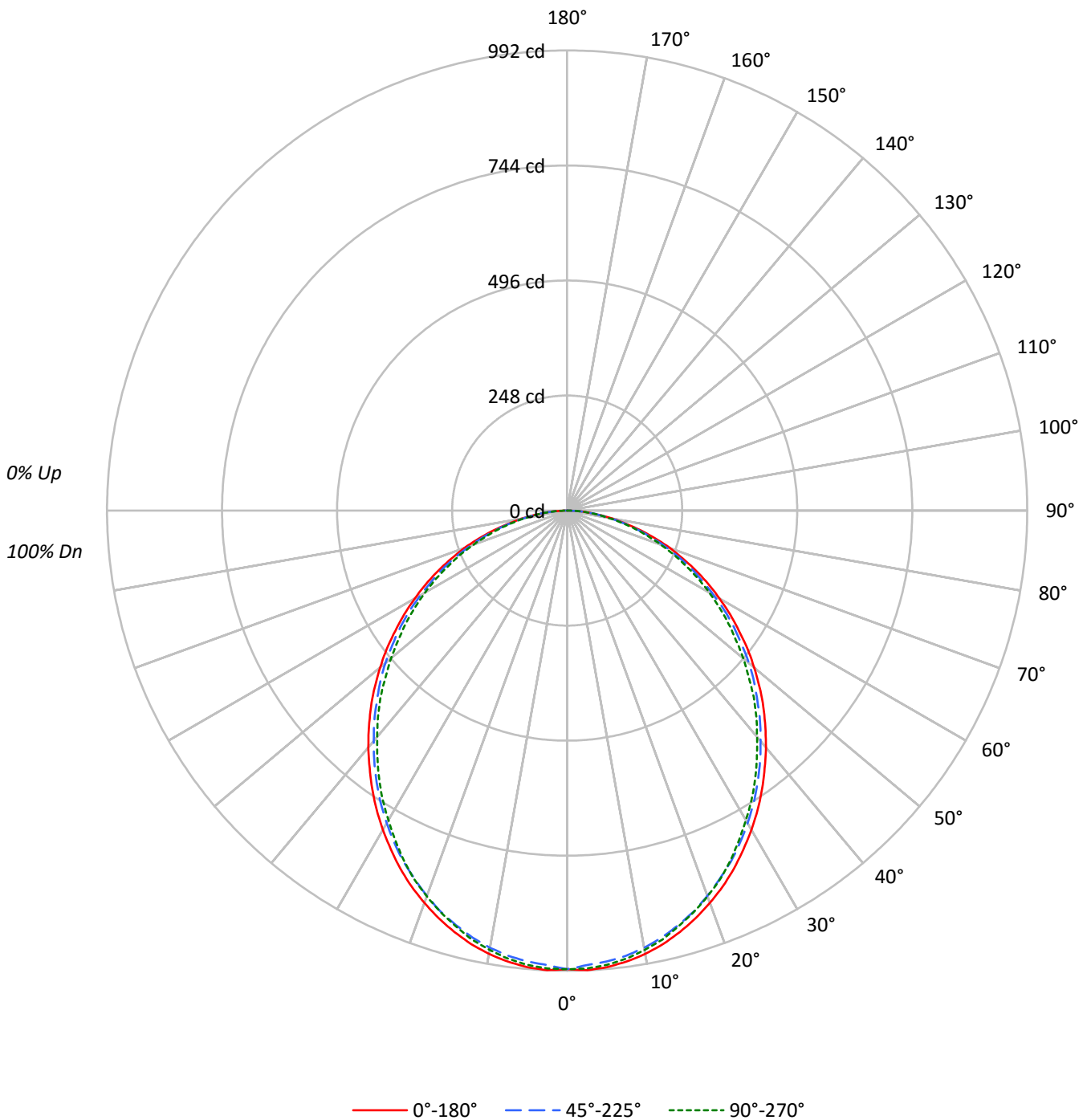
Input Watts (W): 26.1  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	119	119	119	119	116	116	116	116	111	111	111		106	106	106		102	102	102	100
1	109	104	100	96	106	102	98	95	98	95	92		94	91	89		90	88	86	84
2	99	91	84	79	97	89	83	78	86	80	76		82	78	74		79	76	73	70
3	91	80	72	66	88	79	71	65	76	69	64		73	67	63		70	66	62	60
4	83	71	63	56	81	70	62	56	67	60	55		65	59	54		63	58	53	51
5	77	64	55	48	74	63	54	48	61	53	48		59	52	47		57	51	47	44
6	71	58	49	42	69	57	48	42	55	47	42		53	47	41		52	46	41	39
7	66	52	44	38	64	52	43	37	50	43	37		49	42	37		47	41	37	35
8	61	48	39	34	60	47	39	34	46	39	33		45	38	33		43	37	33	31
9	57	44	36	30	56	43	36	30	42	35	30		41	35	30		40	34	30	28
10	54	41	33	28	52	40	33	28	39	32	27		38	32	27		37	31	27	25

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	8788	8788	8788
5°	8815	8709	8772
10°	8759	8638	8680
15°	8653	8515	8536
20°	8512	8363	8371
25°	8352	8190	8166
30°	8156	7984	7912
35°	7952	7771	7668
40°	7740	7528	7390
45°	7519	7290	7150
50°	7274	7078	6858
55°	7009	6802	6580
60°	6747	6492	6295
65°	6449	6198	5948
70°	6115	5806	5580
75°	5605	5334	5196
80°	4986	4786	4663
85°	4365	4202	4120



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	93.2	3.7
10°-20°	262.5	10.3
20°-30°	386.4	15.2
30°-40°	449.1	17.7
40°-50°	449.1	17.7
50°-60°	392.8	15.5
60°-70°	291.6	11.5
70°-80°	165.5	6.5
80°-90°	47.4	1.9
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°	742.1	29.2
0°-40°	1191.2	46.9
0°-60°	2033.1	80.1
0°-90°	2537.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2537.6	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	989	989	989	989	989	
5°	988	985	976	985	983	94
15°	940	937	925	930	928	265
25°	852	846	835	836	833	392
35°	733	727	716	711	707	458
45°	598	593	580	571	569	461
55°	452	450	439	429	425	405
65°	307	303	295	287	283	303
75°	163	159	155	152	151	173
85°	43	43	41	41	40	49
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	988.6	988.6	988.6	988.6	988.6
2.5°	991.8	989.4	980.7	988.6	987.9
5°	987.9	984.7	976.0	984.7	983.1
7.5°	980.7	977.6	968.0	975.2	974.4
10°	970.4	967.3	957.0	963.3	961.7
12.5°	957.0	953.8	942.7	949.8	947.5
15°	940.3	937.2	925.3	930.0	927.6
17.5°	921.3	917.3	906.3	909.4	907.8
20°	899.9	896.0	884.1	886.5	884.9
22.5°	876.9	871.4	859.5	864.3	861.1
25°	851.6	846.1	835.0	835.8	832.6
27.5°	823.1	817.5	807.2	805.7	801.7
30°	794.6	788.2	777.9	774.8	770.8
32.5°	764.5	758.9	747.8	743.9	739.9
35°	732.8	727.2	716.1	710.6	706.6
37.5°	699.5	694.7	682.9	677.3	671.8
40°	667.0	660.7	648.8	640.9	636.9
42.5°	632.2	629.0	615.5	606.0	603.6
45°	598.1	592.6	579.9	571.2	568.8
47.5°	562.5	558.5	546.6	537.1	530.8
50°	526.0	522.8	511.8	500.7	495.9
52.5°	490.4	486.4	474.5	465.0	458.7
55°	452.3	450.0	438.9	429.4	424.6
57.5°	416.7	414.3	403.2	393.7	389.0
60°	379.5	375.5	365.2	358.1	354.1
62.5°	343.0	339.8	328.8	322.4	318.5
65°	306.6	302.6	294.7	286.8	282.8
67.5°	269.3	266.2	258.3	250.3	249.5
70°	235.3	229.7	223.4	217.1	214.7
72.5°	198.8	193.3	188.5	183.8	181.4
75°	163.2	159.2	155.3	152.1	151.3
77.5°	128.3	126.7	122.8	122.0	119.6
80°	97.4	95.1	93.5	91.9	91.1
82.5°	67.3	66.5	66.5	65.8	65.0
85°	42.8	42.8	41.2	41.2	40.4
87.5°	20.6	19.8	19.0	19.0	19.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)