

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: P242625

Luminaire Tested: **S124DR-S795D940-X4F0-XX-UDD-F-W**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P242625  
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-S795D940-X4F0-XX-UDD-F-W  
Description: DEFINE 4 DIRECT RECESSED WITH SATIN FLUSH DIFFUSER  
STANDARD LIGHT ENGINE  
Light Source: (92) 4000K CCT, 90 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2856.4 lumens  
Efficiency: N/A  
Efficacy: 108.2 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

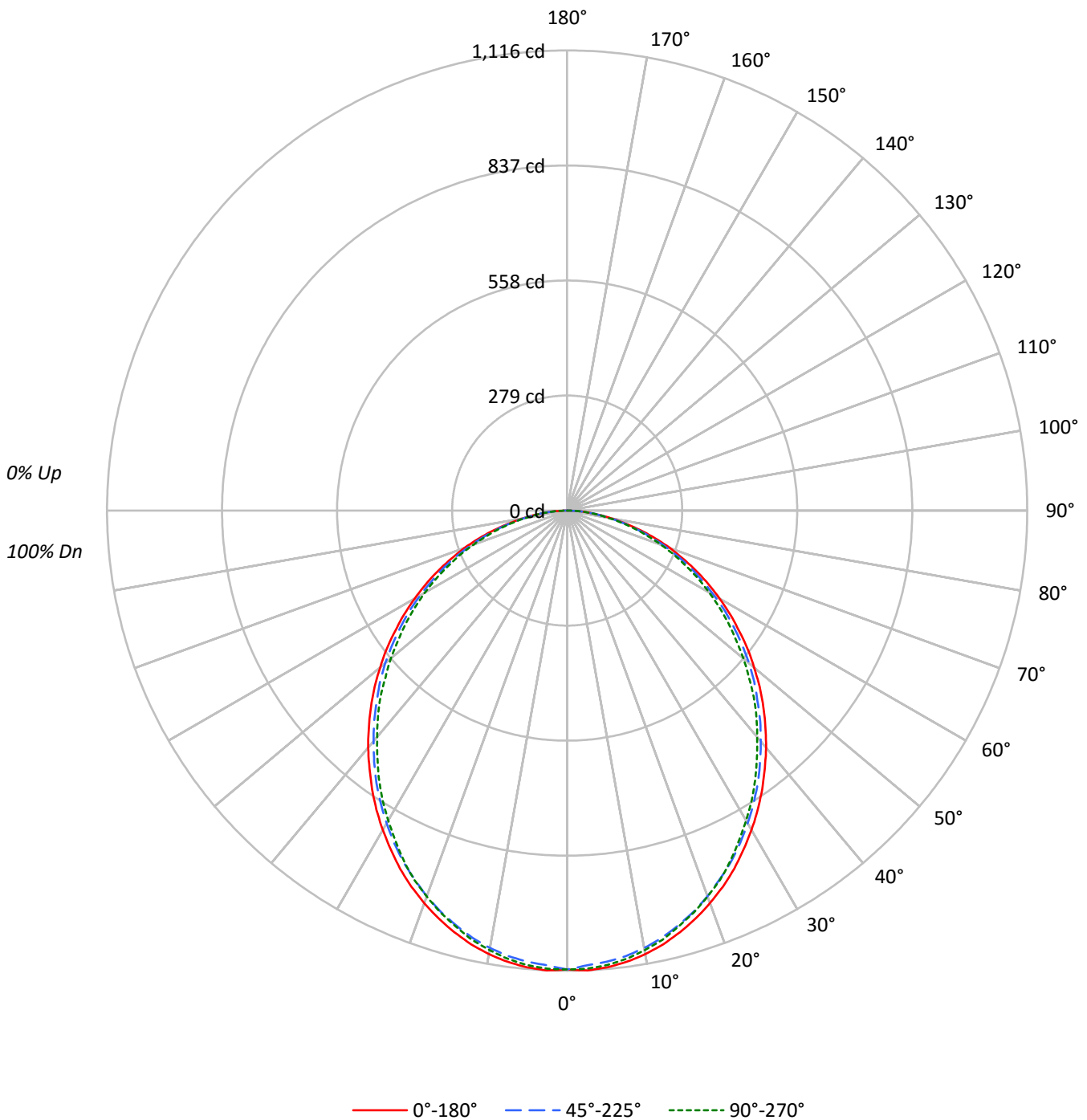
Input Watts (W): 26.4  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	9892	9892	9892
5°	9922	9803	9874
10°	9859	9723	9771
15°	9741	9584	9609
20°	9582	9414	9422
25°	9402	9218	9192
30°	9180	8988	8905
35°	8950	8747	8631
40°	8712	8474	8319
45°	8463	8205	8048
50°	8188	7965	7719
55°	7891	7656	7408
60°	7593	7308	7086
65°	7258	6977	6695
70°	6882	6536	6282
75°	6309	6003	5849
80°	5615	5385	5247
85°	4916	4732	4640



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	104.9	3.7
10°-20°	295.5	10.3
20°-30°	434.9	15.2
30°-40°	505.6	17.7
40°-50°	505.5	17.7
50°-60°	442.1	15.5
60°-70°	328.2	11.5
70°-80°	186.2	6.5
80°-90°	53.3	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°	835.3	29.2
0°-40°	1340.9	46.9
0°-60°	2288.5	80.1
0°-90°	2856.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2856.4	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1113	1113	1113	1113	1113	
5°	1112	1108	1099	1108	1107	106
15°	1058	1055	1042	1047	1044	298
25°	959	952	940	941	937	441
35°	825	819	806	800	795	516
45°	673	667	653	643	640	519
55°	509	506	494	483	478	456
65°	345	341	332	323	318	342
75°	184	179	175	171	170	195
85°	48	48	46	46	46	55
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1112.9	1112.9	1112.9	1112.9	1112.9
2.5°	1116.4	1113.7	1103.9	1112.9	1112.0
5°	1112.0	1108.4	1098.6	1108.4	1106.6
7.5°	1103.9	1100.4	1089.7	1097.7	1096.8
10°	1092.3	1088.8	1077.2	1084.3	1082.5
12.5°	1077.2	1073.6	1061.1	1069.2	1066.5
15°	1058.5	1054.9	1041.5	1046.9	1044.2
17.5°	1037.1	1032.6	1020.1	1023.7	1021.9
20°	1013.0	1008.5	995.2	997.8	996.0
22.5°	987.1	980.9	967.5	972.9	969.3
25°	958.6	952.3	939.9	940.8	937.2
27.5°	926.5	920.2	908.7	906.9	902.4
30°	894.4	887.3	875.7	872.1	867.6
32.5°	860.5	854.3	841.8	837.3	832.9
35°	824.8	818.6	806.1	799.9	795.4
37.5°	787.4	782.0	768.7	762.4	756.2
40°	750.8	743.7	730.3	721.4	716.9
42.5°	711.6	708.0	692.9	682.2	679.5
45°	673.2	667.0	652.7	642.9	640.2
47.5°	633.1	628.7	615.3	604.6	597.4
50°	592.1	588.5	576.0	563.6	558.2
52.5°	552.0	547.5	534.1	523.4	516.3
55°	509.2	506.5	494.0	483.3	478.0
57.5°	469.0	466.4	453.9	443.2	437.8
60°	427.1	422.7	411.1	403.1	398.6
62.5°	386.1	382.5	370.1	362.9	358.5
65°	345.1	340.6	331.7	322.8	318.3
67.5°	303.2	299.6	290.7	281.8	280.9
70°	264.8	258.6	251.5	244.3	241.7
72.5°	223.8	217.6	212.2	206.9	204.2
75°	183.7	179.2	174.8	171.2	170.3
77.5°	144.5	142.7	138.2	137.3	134.6
80°	109.7	107.0	105.2	103.4	102.5
82.5°	75.8	74.9	74.9	74.0	73.1
85°	48.2	48.2	46.4	46.4	45.5
87.5°	23.2	22.3	21.4	21.4	21.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)