

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: P242728

Luminaire Tested: **S124RDR-S795D940-X4F0-XX-UDD-F-W**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P242728  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1802-639-26)  
Test Lab: INNOVATION CENTER  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: NEO-RAY  
Catalog Number: S124RDR-S795D940-X4F0-XX-UDD-F-W  
Description: DEFINE 4 REGRESSED 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: 2690.9 lumens  
Efficiency: N/A  
Efficacy: 101.9 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 1.09 / 1.24  
Luminous Opening: Rectangular (W 0.31' x L: 3.88' x H: 0')  
CIE Type: Direct

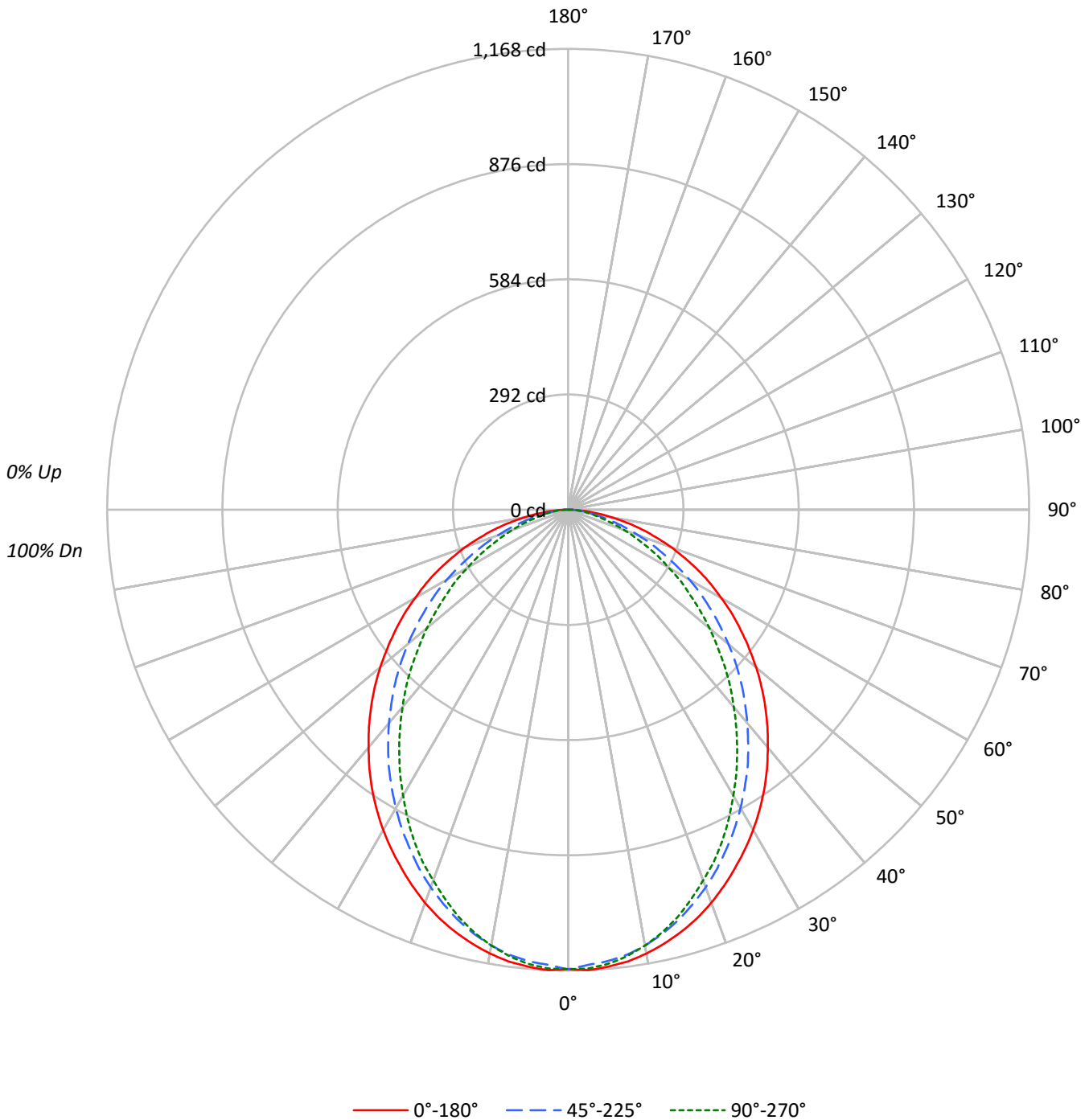
Input Watts (W): 26.4  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	110	105	101	98	107	103	99	96	99	96	93	95	92	90	91	89	87	85
2	100	93	86	81	98	91	85	80	87	82	78	84	80	76	81	78	74	72
3	92	82	74	68	89	80	73	67	77	71	66	75	69	65	72	68	64	62
4	84	73	65	58	82	72	64	58	69	62	57	67	61	56	65	60	56	54
5	78	66	57	51	76	65	56	50	62	55	50	61	54	49	59	53	49	47
6	72	59	51	45	70	58	50	44	57	49	44	55	49	44	53	48	43	41
7	67	54	46	40	65	53	45	40	52	45	39	50	44	39	49	43	39	37
8	63	50	41	36	61	49	41	36	48	40	35	46	40	35	45	39	35	33
9	59	46	38	32	57	45	37	32	44	37	32	43	36	32	42	36	32	30
10	55	42	35	29	54	42	34	29	41	34	29	40	33	29	39	33	29	27

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

	0°	45°	90°
0°	10352	10352	10352
5°	10376	10248	10312
10°	10310	10125	10125
15°	10192	9913	9839
20°	10029	9632	9456
25°	9822	9306	9069
30°	9619	8960	8585
35°	9396	8602	8099
40°	9126	8194	7574
45°	8878	7790	7040
50°	8595	7325	6473
55°	8291	6841	5860
60°	7957	6309	5232
65°	7652	5645	4615
70°	7207	4912	3917
75°	6646	4073	3184
80°	5795	3102	2923
85°	4916	2815	2642



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	109.5	4.1
10°-20°	305.3	11.3
20°-30°	440.8	16.4
30°-40°	499.6	18.6
40°-50°	482.4	17.9
50°-60°	401.0	14.9
60°-70°	276.8	10.3
70°-80°	139.9	5.2
80°-90°	35.5	1.3
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°	855.7	31.8
0°-40°	1355.3	50.4
0°-60°	2238.7	83.2
0°-90°	2690.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2690.9	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1165	1165	1165	1165	1165	
5°	1163	1159	1148	1157	1156	110
15°	1108	1100	1077	1075	1069	312
25°	1001	985	949	934	925	461
35°	866	837	793	762	746	541
45°	706	673	620	576	560	545
55°	535	499	441	395	378	479
65°	364	326	268	230	219	359
75°	194	160	119	98	93	204
85°	48	30	28	26	26	56
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1164.6	1164.6	1164.6	1164.6	1164.6
2.5°	1168.1	1164.6	1154.8	1164.6	1163.7
5°	1162.8	1159.2	1148.5	1157.4	1155.7
7.5°	1154.8	1151.2	1137.8	1144.1	1141.4
10°	1142.3	1137.8	1121.8	1125.3	1121.8
12.5°	1126.2	1120.9	1101.3	1103.0	1097.7
15°	1107.5	1099.5	1077.2	1075.4	1069.2
17.5°	1086.1	1074.5	1048.7	1044.2	1035.3
20°	1060.2	1048.7	1018.3	1011.2	999.6
22.5°	1031.7	1018.3	985.3	973.7	964.8
25°	1001.4	985.3	948.8	933.6	924.7
27.5°	970.2	950.6	912.2	894.4	881.9
30°	937.2	914.9	873.0	850.7	836.4
32.5°	902.4	876.6	832.9	806.1	792.7
35°	865.9	837.3	792.7	762.4	746.4
37.5°	827.5	798.1	749.0	716.0	700.0
40°	786.5	757.1	706.2	668.8	652.7
42.5°	747.3	716.0	662.5	624.2	607.3
45°	706.2	673.2	619.7	576.0	560.0
47.5°	664.3	630.4	575.2	529.7	511.8
50°	621.5	586.7	529.7	485.1	468.1
52.5°	577.8	543.9	485.1	439.6	421.8
55°	535.0	499.4	441.4	395.0	378.1
57.5°	493.1	455.7	398.6	351.3	338.8
60°	447.6	412.0	354.9	308.5	294.3
62.5°	406.6	369.2	310.3	268.4	257.7
65°	363.8	325.5	268.4	230.1	219.4
67.5°	319.2	282.7	229.2	195.3	182.8
70°	277.3	239.9	189.0	159.6	150.7
72.5°	232.7	199.7	152.5	128.4	120.4
75°	193.5	160.5	118.6	98.1	92.7
77.5°	152.5	123.9	88.3	74.0	72.2
80°	113.2	87.4	60.6	58.0	57.1
82.5°	79.4	56.2	43.7	41.9	41.0
85°	48.2	30.3	27.6	25.9	25.9
87.5°	20.5	13.4	12.5	11.6	12.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)