

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: P242886

Luminaire Tested: **S125RDR-S1090D840-X4F0-XX-UDD-F-W**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P242886  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1802-639-27)  
Test Lab: INNOVATION CENTER  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: NEO-RAY  
Catalog Number: S125RDR-S1090D840-X4F0-XX-UDD-F-W  
Description: DEFINE 5 REGRESSED DIRECT RECESSED WITH SATIN FLUSH DIFFUSER  
STANDARD LIGHT ENGINE  
Light Source: (92) 4000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4028.5 lumens  
Efficiency: N/A  
Efficacy: 115.8 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 1.11 / 1.25  
Luminous Opening: Rectangular (W 0.39' x L: 3.88' x H: 0')  
CIE Type: Direct

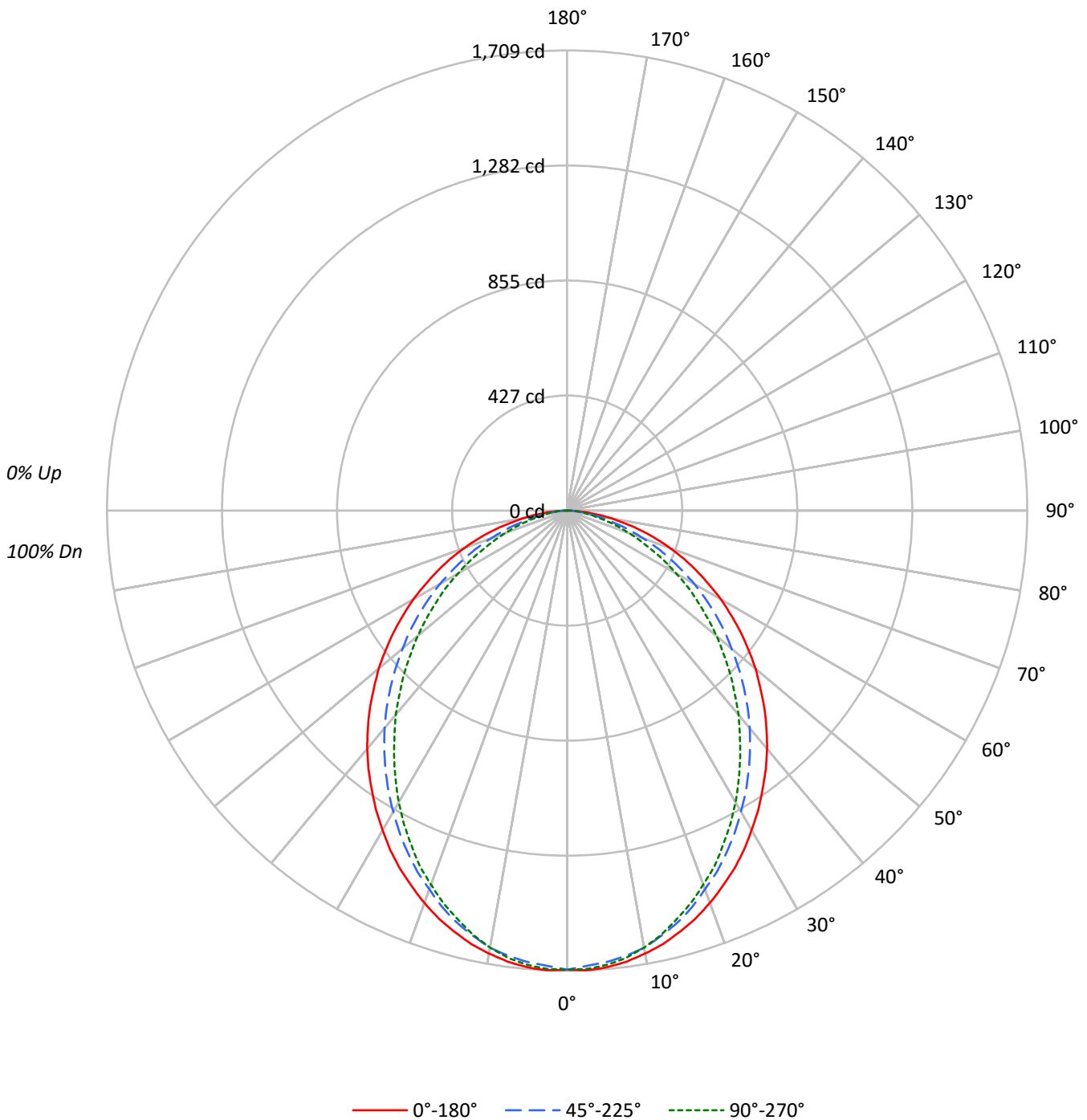
Input Watts (W): 34.8  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	105	101	97	107	103	99	96	99	96	93	95	92	90	91	89	87	85
2	100	92	86	80	98	90	84	79	87	82	78	84	79	76	81	77	74	72
3	92	82	74	68	89	80	73	67	77	71	66	74	69	65	72	67	64	61
4	84	73	64	58	82	71	64	57	69	62	57	67	61	56	64	59	55	53
5	78	65	57	50	76	64	56	50	62	55	49	60	54	49	58	53	48	46
6	72	59	50	44	70	58	50	44	56	49	44	55	48	43	53	47	43	41
7	67	54	45	39	65	53	45	39	51	44	39	50	43	39	49	43	38	36
8	62	49	41	35	61	48	41	35	47	40	35	46	39	35	45	39	34	33
9	58	45	37	32	57	45	37	32	44	37	32	42	36	31	41	36	31	29
10	55	42	34	29	54	41	34	29	40	34	29	39	33	29	39	33	29	27

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

	0°	45°	90°
0°	12119	12119	12119
5°	12146	12009	12082
10°	12055	11896	11896
15°	11911	11655	11560
20°	11727	11319	11182
25°	11513	10988	10745
30°	11245	10601	10263
35°	10972	10202	9721
40°	10718	9785	9188
45°	10407	9320	8608
50°	10096	8815	8003
55°	9735	8329	7357
60°	9373	7744	6664
65°	8945	7060	5869
70°	8458	6209	5058
75°	7780	5234	4210
80°	6852	4113	3532
85°	5774	3360	3148



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	160.5	4.0
10°-20°	448.5	11.1
20°-30°	650.3	16.1
30°-40°	740.8	18.4
40°-50°	722.1	17.9
50°-60°	607.7	15.1
60°-70°	425.9	10.6
70°-80°	218.3	5.4
80°-90°	54.4	1.4
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°	1259.2	31.3
0°-40°	2000.1	49.6
0°-60°	3329.9	82.7
0°-90°	4028.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4028.5	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1705	1705	1705	1705	1705	
5°	1702	1697	1683	1696	1694	161
15°	1619	1611	1584	1583	1571	456
25°	1468	1449	1401	1384	1370	676
35°	1265	1234	1176	1138	1120	792
45°	1035	998	927	876	856	799
55°	786	744	672	614	594	702
65°	532	488	420	368	349	527
75°	283	245	191	162	153	299
85°	71	48	41	40	39	82
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1705.1	1705.1	1705.1	1705.1	1705.1
2.5°	1708.9	1705.1	1692.2	1705.1	1703.8
5°	1702.5	1697.4	1683.2	1696.1	1693.5
7.5°	1689.6	1684.5	1667.7	1678.0	1675.5
10°	1670.3	1666.4	1648.4	1652.3	1648.4
12.5°	1648.4	1643.3	1617.5	1620.1	1613.6
15°	1618.8	1611.1	1584.0	1582.7	1571.1
17.5°	1587.9	1576.3	1544.1	1537.7	1528.6
20°	1550.5	1537.7	1496.5	1490.0	1478.4
22.5°	1509.3	1496.5	1452.7	1438.5	1429.5
25°	1468.1	1448.8	1401.2	1384.4	1370.2
27.5°	1421.8	1398.6	1348.4	1326.5	1312.3
30°	1370.2	1345.8	1291.7	1262.1	1250.5
32.5°	1320.0	1290.4	1235.0	1201.5	1186.1
35°	1264.6	1233.7	1175.8	1138.4	1120.4
37.5°	1211.8	1174.5	1115.3	1071.5	1053.4
40°	1155.2	1116.5	1054.7	1005.8	990.3
42.5°	1095.9	1056.0	991.6	945.3	920.8
45°	1035.4	998.1	927.2	875.7	856.4
47.5°	972.3	933.7	862.8	810.0	788.1
50°	913.1	870.6	797.2	743.1	723.8
52.5°	848.7	804.9	736.6	677.4	658.1
55°	785.6	744.4	672.2	614.3	593.7
57.5°	721.2	677.4	607.9	551.2	533.2
60°	659.4	614.3	544.8	488.1	468.8
62.5°	593.7	551.2	480.4	428.8	409.5
65°	531.9	488.1	419.8	368.3	349.0
67.5°	470.1	426.3	360.6	311.7	296.2
70°	407.0	363.2	298.8	258.9	243.4
72.5°	345.1	302.6	243.4	207.3	198.3
75°	283.3	244.7	190.6	162.3	153.3
77.5°	220.2	189.3	144.2	122.3	114.6
80°	167.4	136.5	100.5	88.9	86.3
82.5°	115.9	88.9	67.0	63.1	61.8
85°	70.8	47.6	41.2	39.9	38.6
87.5°	29.6	20.6	19.3	19.3	18.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)